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CALIFORNIA STATE JOURNAL OF MEDICINE

The Immutable Law of Progression

NATURE abhors stagnation and has established laws which render it impossible; we must make progress either forward or backward, and it is always more difficult to measure this progress in ourselves than in others. We are prone to criticize our neighbor or competitor as to his progress, but do we often apply the same cold scrutiny to ourselves? In nothing can we better gauge our progress than in critically studying something that we wrote last year or five years ago. Have we traveled away beyond it in straight thinking, in diction and in real knowledge, or are we somewhat startled, not to say alarmed, by the feeling that we are slipping---that we are incapable of keeping up the pace set by ourselves? It is good for us all to check up on our available mental assets from time to time. In this way only are we likely to forestall mental bankruptcy.—Robert Pollock, M.D., (Bulletin, San Diego County Medical Society.)

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ORIGINAL ARTICLES

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ERYTHEMA INDURATUM*

(Report of a case treated with tuberculin and the Kromayer Lamp.)

By H. E. ALDERSON, M. D. and H. C. COE, M. D.
(From the skin clinic, Stanford University Medical School, San Francisco.)

This case of erythema induratum is reported because of the good results obtained in treatment with tuberculin and ultraviolet light.

The patient, an American schoolgirl, referred by P. H. Pierson, complained of ulcers on both legs of two months' duration. The lesions had first appeared as nodules in the skin, which were neither painful nor tender. These nodules gradually broke down, leaving indolent ulcers characteristic of the disease.

The family history disclosed the fact that the father had had similar ulcers on his legs thirty years ago. There was no history of syphilis or tuberculosis in the family. The patient had never been in contact with tuberculosis, as far as she knew. There was nothing in the patient's past history which could influence her present illness.

Physical examination showed a well-developed, very well nourished young woman 16 years of age. The pulse and temperature were normal. The thyroid gland was slightly enlarged, but there were no signs of toxicity. In the right anterior cervical region there was an enlarged lymph gland, about 1 cm. in diameter. It was firm and not adherent to surrounding structures. The tonsillar fossae were clean. Tonsillectomy had been thoroughly done nine years prior to examination. The heart and circulation were normal. There was some harshness to the breath sounds at both hilus regions; otherwise, the lungs were negative and the abdomen and extremities presented nothing abnormal excepting the leg ulcers.

The ulcers were situated on the lower third of both legs. There were four on the left leg (two on the anterior surface, one on the medial aspect, and another on the posterior surface). There was one ulcer on the anterior surface of the right leg. They were irregularly annular in shape, and about 4 cm. in diameter. The ulcers were fairly deep, the edges somewhat raised and crusted, but fairly clean-cut. The bases were covered with a serosanguineous exudate and some necrotic tissue. They were not tender nor acutely inflamed.

Laboratory examinations showed a normal blood count and a negative urine. The Wassermann test was negative in two laboratories. Smears were made from the edges of the ulcers and stained for tubercle bacilli, but none were found.

X-ray plates of the chest showed calcified glands at each hilus and a pleural scar across the apex. This, with the enlarged cervical gland pointed toward past tuberculosis.

The history and appearance of the lesions established the diagnosis of erythema induratum (Bazin). The patient was given a course of tuberculin injections as outlined below by P. H. Pierson, and we administered the Kromayer lamp treatment.

Tuberculin O. T. was given in increasing doses, the dosage being regulated according to local and focal reactions and the patient's temperature. The dosage varied from .001 mgms. to .02 mgms. The smaller doses were given three times a week and the larger ones twice a week.

The Kromayer lamp was applied twice a week without lens, the window of the lamp being held as closely as possible to the ulcer without actual contact. The exposure was for 15 seconds.

About two weeks after beginning treatment a focal reaction was noticed about the ulcers. They became larger and were surrounded by a zone of hyperemia. The patient said the lesions were painful and they were tender to touch. A month later the edges of the ulcers were clean and smooth, healthy granulations covered the bases, and epithelium began to grow in from the edges. In four months the lesions were completely healed. The

* Read before Section on Dermatology at the State meeting, at San Francisco, June 22, 1923.

patient was last seen a few days before reading this paper, four months after the ulcers healed. She has no new lesions and the smooth purplish scars, the remains of the ulcers, are beginning to fade.

A survey of the literature shows that tuberculin has been successfully used by others in the treatment of erythema induratum. In 1909 Clark reported on the therapeutic value of tuberculin in this disease. Fordyce in 1911 reported improvement in a case thus treated, and MacKee in 1913 reported the cure of a case. The Kroymayer lamp as a local application has also given therapeutic results. Recently, Oliver reports cures in five cases of non-ulcerated erythema induratum by the application of the lamp with pressure over the nodules for a one-minute exposure.

SUMMARY

Ulcers on the legs of a young woman were diagnosed as lesions of erythema induratum. The patient was treated with tuberculin and the lesions with ultraviolet light by the means of the Kromayer lamp. Lesions were completely healed in four months. They have remained healed and there have been no new lesions.

240 Stockton St.

DISCUSSION

Edward D. Lovejoy, Brockman Building, Los Angeles—The paper of Alderson and Coe is a valuable contribution, in that they have added to our knowledge of treatment and results of treatment. It is only by collecting such data that we can come to a just evaluation of the methods at our command in the care of dermatological diseases. Far too many reports are wasted because we do not consider a single case or small group of cases of sufficient value to publish, but in the present instance this report added to the previous ones by Clark, Fordyce, Mackee, and Oliver makes an increasing collection from which valuable facts may be later deducted.

Erythema induratum has always been difficult to bring to an ultimate cure, relapses being of frequent occurrence even with the use of tuberculin combined with the local dressings and cleansing of the ulcers which we have previously employed, but the report of Alderson and Coe makes us hopeful that the combination of treatment here employed may serve to destroy the cause and prevent recurrence.

In regard to the case itself, the author leaves us a little in doubt as to whether he considers the focal reaction due to the tuberculin injection or the Kromayer lamp, and also if any change was made in the treatment or frequency of the treatment following the appearance of the reaction.

John C. Yates, Watts Building, San Diego—I wish to acknowledge, in the discussion of paper by Alderson and Coe, of a case of erythema induratum. It is rather difficult to know where to start, as they give us very little to start upon. I appreciate very much the report of one case, as it brings us into more intimate contact with the patient than where the statistics are given of one hundred cases, or perhaps more. I have never been satisfied from my contact with the various writers on this subject, that all are agreed as to its being a tubercular condition, primarily; that is, the patient is usually one having poor circulation in extremities, and the condition existing is a phlebitis, with choking of lumen of vessels by leucocytes, and tuberculosis bacilli are seldom found, although patient usually is suffering with, or has healed lesion of tuberculosis, probably from the predisposing cause, therefore giving one several possible foci of tuberculosis infection.

The laboratory findings in this case showed nothing in particular, outside of some probably healed lesions in apices; however, we will take Alderson's and Coe's diagnosis for granted.

This brings us to treatment administered, which consists of two parts—that of tuberculin internally, and light externally, the description of which is rather vague, in that the authors state the dosage was "regulated according to local and focal reaction, and the patient's temperature," and then apparently "the smaller doses were given, three times a week, and larger ones twice a week."

The treatment of erythema induratum has been conducted for several years by use of tuberculin, together with the usual care of tubercular patients, with more or less fair results; also it must be noted many of these cases tend to spontaneous recovery, at least for the time being; therefore, it comes to the consideration in the treatment of this case of the use of the violet ray as an adjunct, administered through use of the Kromayer lamp, exposure, without lens, for fifteen seconds twice weekly. The author speaks of a focal reaction occurring after two weeks, but does not specify any difference as to this reaction and what might have been from his focal reaction of tuberculin, and although you might get a reaction from Kromayer in ulcerations of any character, and by hyperemia disseminate the leucocytes, I do not feel that the exposures were of long enough duration to do this in an encrusted ulcer with a serosanguineous exudate of any amount, which must have occurred with necrotic tissue. The only question that now remains, can erythema induratum be cleared with ultra violet rays alone, or must we use tuberculin in conjunction?

Philip H. Pierson, 516 Sutter Street, San Francisco—A question was raised in regard to whether this was definitely tuberculous disease and to what has been said in regard to the existing cervical gland, scars at both hiluses and across the apices, the rather destructive type of leg ulcers. I might

add that there was a definite focal reaction in the ulcers, more redness, pain and induration following the injection of one mgr. tuberculin used for diagnostic purposes before the treatment was started.

The question has also been raised as to whether the ultra violet lamp alone would suffice in treating such a tuberculous manifestation, and to this I would say, probably not. And my reason for saying so is that you cannot treat a generalized infection with perhaps only a few superficial manifestations by local treatment only. General regulation of life, habits, diet, rest, etc., is extremely important. Also the effect of the tuberculin on the specific resistance is a great factor in preventing recurrences. I do not deprecate in the least the added help of the lamp in hastening the effect of tuberculin and general hygiene, but I feel that all should be carried out rigidly if we are to be successful both for the present and the future.

Dr. Alderson (closing) — In reply to Lovejoy's discussion we can state that months have elapsed, and the patient who has been reporting at intervals remains perfectly well. She has become a professional dancer, and is quite successful in her work. We expect to keep her under observation for several years before pronouncing her permanently cured. The focal reaction referred to was due to the tuberculin injection which phenomenon offers additional diagnostic evidence asked for by Yates. The tuberculin injections at this stage were temporarily interrupted, but the Kromayer lamp treatments were continued. Pierson has already discussed his part of the treatment. Yates' remarks regarding the sufficiency of the ultraviolet-ray exposure would be justified if the ulcers at the time of treatment were covered with crusts, but the treated surfaces were cleaned, leaving an unobstructed field for the light rays. It is now generally accepted that erythema induratum is due to the tubercle bacillus. In our opinion, a favorable result would have been observed in time from the ultraviolet light alone, but combination with the tuberculin injections brought about involution of the lesions in much less time than otherwise would have been the case.

Harry C. Coe (closing)—I believe that the questions asked by both Lovejoy and Yates have been answered by Pierson and Alderson. I might add that in the paper we referred to E. L. Oliver's recent report of cure by the use of Kromayer lamp alone in case of erythema induratum. This would answer Yates' question on that point.

Professional Pirates—Under this heading, the Financial Times, San Francisco, October 13, 1923, publishes the following editorial: "Next Wednesday (providing there is no golf match on) the State Board of Medical Examiners will summon thirteen physicians to appear and show cause why they should not be deprived of their right to practice medicine in California. Mind you, thirteen in our own State—twelve charged with performing illegal operations, and one for violation of the poison act. Very Pretty! In the mind of the editor, the three greatest professions in the world are law, the church, and medicine. A chief justice should advocate and protect the citizens with law and order. The ecclesiastic is given the rare privilege of teaching the doctrines of Christ and cementing love and tolerance. The physician, honored by degrees, should respect the humanitarian and skillful knowledge he possesses. Bringing children into the world and nursing and treating both young and old alike, when in ill health, are all a part of his duties. These three professions should be a firm foundation for all times. Should be! Now, what do we discover? The foundation is cracked and is leaky. Worms of distrust and selfish gain are eating into the concrete pillars. No penalty is too severe for this ilk. Those noble medicos, who will undoubtedly suffer through this blight brought on their profession by their so-called colleagues, should be vindicated swiftly and surely for all times.

THE TREATMENT OF ACUTE OSTEOMYELITIS*

By A. J. OCHSNER, M. D., Chicago

In discussing this subject it is of the greatest importance to direct attention to the fact that harm comes to patients suffering from acute osteomyelitis as a rule, because of the fact that the diagnosis is not made until great destruction has been done from advancement of the disease, which could have been prevented with the greatest ease had an early diagnosis been made, and to point out the reasons why the diagnosis is not made early, and to supply the remedy for this error.

In order to clearly understand the history and progress of the disease one must bear in mind the structures involved in this infection, which enters the bone through the nutrient artery and progresses through the peculiar circulatory system present in the bone. Taking as an example one of the long bones, we have in the center the medulary cavity, which is especially rich in blood vessels through which the infection can progress readily if no outlet is provided to the external surface of the extremity involved. From this cavity the vessels extend into the hard portion of the bone through the Haversian canals, which communicate in turn through the tiny canaliculi with the lacunae, and ultimately with the periosteum. The latter structure is thick and hard and difficult to perforate, consequently the infection is confined within this dense covering and backs up into adjoining portions of the marrow until ultimately the entire shaft may be involved.

On the other hand, if an exit is provided by an incision down to the bone through the periosteum, the lymph stream immediately begins to carry the infectious material away from the original location. The pressure is relieved at once, and the pain subsides immediately and the infection ceases to progress, so that there is no danger of further involvement of bone which had previously remained free from infection.

Occasionally, the primary point of infection is located immediately underneath the periosteum; especially is this true in cases in which there has been a contusion of the periosteum. In these cases an incision through the periosteum down to the bone will result in complete, permanent relief without any involvement of the bone proper. On the other hand, if this treatment is not instituted early the infection may destroy a portion of the bone before relief comes from perforation of the periosteum by pressure necroses and evacuation of the pus through an abscess in the soft tissues overlying the periosteum.

In reviewing the histories of the cases which have come under my personal observation, I have found that an early diagnosis has been made only in those cases in which a careful physical examination had been made. The delayed diagnoses were due to the fact that the trouble was looked upon by the parents, or the family physician, or both, as a case of rheumatism or growing pains, the diagnosis having been based entirely upon the fact that

* Read at the Utah Medical Association's annual meeting, Salt Lake, June, 1923.

the child complained severely from pain in one of the extremities.

A careful review of the case invariably brought out the fact that the child had suffered previously from some localized form of infection. In many cases this was present in the form of tonsillitis, fernuculosis, otitis media, sinus infection, infected dental roots, acne or some form of intestinal infection. The bacteria present varied, staphylococcus being the most common, but pneumococcus, streptococcus, colon bacillus, Klebs Loeffler bacillus and typhoid bacillus and others were present in some of the cases.

In many of the cases that come later for treatment, there are two or more varieties of microorganisms present. The cases which came under our observation early with a diagnosis had all been examined physically with great care by the family physician, with the result that it was possible to prevent the spread of the infection and that the cases recovered with the destruction of only a small amount of bone or none at all. The attack may be mild if the infection is not virulent amounting to slight pain usually near the end of one of the long bones, but occurring at times in any bone of the entire skeleton.

In other cases the attack may be extremely violent so that the patient may suffer extreme pain within a few hours after the beginning of the attack. The temperature may rise rapidly to exceed 103 degrees F., and there may be a high leucocyte count, although it is dangerous and foolish to postpone operation in any case because of a low leucocyte count.

The symptom, however, which is of supreme importance, is the pain upon pressure over the portion of the bone involved. It is difficult to overlook an acute osteomyelitis, if one carefully goes over the bone with pressure. The area which is painful upon pressure may be absolutely circumscribed in very early cases, while later on it will extend over a larger area and may extend over the entire bone, but whenever pain is present upon pressure immediate surgical interference is indicated, and the less time is wasted the better.

One form of preliminary examination should be condemned in the most vigorous terms in cases in which a diagnosis of acute osteomyelitis has been made upon physical examination. I refer to the X-ray examination. Many cases are not operated early because an X-ray examination fails to show an abnormal condition. In these cases usually repeated X-ray examinations are made until one shows the presence of a sequestrum or until external swelling indicates the presence of the underlying infection. By that time the amount of destruction is much greater than it was when the patient was first examined, and when by the simple physical examination a positive diagnosis could have been made. Unfortunately, the fact that the X-ray is most valuable in determining the extent of necrosis in cases of chronic osteomyelitis has given the impression that it is also valuable in acute cases, and has caused this foolish practice to be employed to the great harm of many patients. It should never be employed in any case in which drainage has not already been provided by the splitting of the periosteum over the entire area over which the bone is tender upon pressure and at least 2 or 3 cm. beyond, above and below.

This is the treatment that should be instituted at once upon making a diagnosis of acute osteomyelitis, and the diagnosis should be made at once upon finding tenderness over the bone upon pressure, and every case should at once be examined by making pressure upon the bone from end to end as soon as a patient complains of pain in one of the extremities.

Under no condition should time be wasted in obtaining X-ray plates, and if for any reason an X-ray plate is made because it is demanded by the family or by some stupid consultant, a negative result should never prevent an immediate operation, which should never go beyond splitting all the overlying tissues through the periosteum down to the bone. The incision should always be very free, so that there can be free escape of lymph which will carry with it the infectious material. This can be materially increased by the application of a large dressing saturated with a saturated solution of boric acid in hot water covered with oiled silk or some other impermeable dressing. Additional solution should be added every three to twelve hours. Within half an hour after the application of these dressings of saturated solution of boric acid, the boric acid can be demonstrated in the patient's urine. Whether this fact is of any importance in the treatment has not been definitely proven, but it is an interesting fact.

As a rule, the operation for acute osteomyelitis should go no further than the free splitting of the periosteum because this will stop the progress of the disease, and many times a portion of bone which appears to be in a hopeless condition will recover entirely or in part if left in place. Moreover, these patients are often extremely ill at the time of operation, and many deaths have occurred from the shock caused by an extensive operation which could have been avoided had the patient not been exposed to the unnecessary trauma.

Moreover, even in cases in which a large portion of a bone is in a hopeless condition at the primary operation, if left in place it will serve as a splint for the development of an involucrum, which will in turn replace the bone and leave the extremity in a very much better condition than it would be if the dead bone had been removed at the original operation. Occasionally, but very rarely, an exception may be made in a case in which there is only a very small circumscribed point of severe tenderness. In such a case there may be a small circumscribed abscess surrounding an infarct, which may have been discovered very early. In these rare cases one may properly use a very sharp gauge after incising and reflecting the periosteum and then, without traumatizing the bone, one may cut out the overlying bone and carefully evacuate the small abscess with a sharp curette. The number of cases in which this form of treatment is indicated is, however, extremely small.

After the patient has recovered from the operation for acute osteomyelitis, one should invariably try to determine the primary location of the infec-

tion. We have met many cases in which recurrent osteomyelitis was apparently due to the fact that the patient had infected tonsils, which had been overlooked, or infected roots of teeth or sinus infection, but most commonly the infection seemed to be located in the tonsils; sometimes these were small and buried, but contained abscesses which could not be demonstrated until the tonsils were removed. For a number of years we have made it a routine practice to remove the tonsils in all cases of acute or chronic osteomyelitis. Many of these cases suffer from chronic furunculosis or chronic acne.

Among these cases who suffer from furunculosis there are many who eat great quantities of sugar, which seems to predispose to the formation of superficial infection which in turn may supply the infectious material which is carried by the circulation into the bones causing osteomyelitis. These patients should give up the use of sugar in every form.

CONCLUSIONS

My experience, which covers a series of more than 200 histories, 151 of which I have analyzed, will justify the following conclusions:

1. In every patient suffering from pain in any bone, the latter should be carefully palpated at once.

2. Pain upon pressure over a bone indicates the presence of osteomyelitis or periostitis.

3. The earlier this is demonstrated the less destruction will occur if operated immediately.

4. The operation should consist in splitting the overlying tissues down to the bone through the periosteum.

5. The incision should extend beyond the painful area above and below.

6. The periosteum should be loosened to 1 or 2 cm. on each side of the incision.

7. As a rule, this should be the extent of the primary operation.

8. In rare cases of very circumscribed infection, the infectious area may be very carefully excised, care being taken not to spread the infection by rough handling of gauge, which should be very sharp.

9. Hot, moist dressings with electric light treatment hastens recovery.

10. The shaft of long bones should never be removed until involucrum has been formed.

11. The primary focus of infection should always be determined if possible.

12. As soon as the patient has recovered from the acute operation, the primary focus of infection should be removed if possible.

2106 Sedgwick Street.

Classified by the Newspapers—The following ad appeared in the classified section of some of the daily papers recently:

For Rent—Something New. Just what you have been looking for. Studio offices complete, with apt. conveniences. . . . They are suitable for chiropractor, musical, dramatic or academic instructor, osteopaths, hairdresser or **similar** professional lines.

A CASE OF SIMULATED PREGNANCY AND DELIVERY

By A. D. ELLSWORTH, Fresno

Cases are not rare in which a woman, for any one of a variety of motives or for none at all, deceives herself or attempts to deceive others in the belief that she is pregnant. It is much more unusual to meet with cases in which the pretense is made that delivery has taken place.

The motive in such cases is usually apparent, such as to obtain damages, to compel marriage, or to gain admission to a charitable institution and, as a rule, the claim is made that delivery was more or less remote, or at least not very recent. There seem to be no cases reported in which the affair has been staged in quite as elaborate a manner as in the present case, which is all the more surprising when we consider that the chief actress in the drama was an ignorant Mexican woman who had never had children.

A word of explanation as to her motive. It is almost unheard of for a Mexican woman of this type to seek or to produce an abortion; their desire is to have large families of children, who are to them a sort of insurance against want in old age. Women who have had as many as seven children will come to the doctor to find out what is the trouble that they do not have more. When a woman of this class is married, if she does not soon begin to produce this form of insurance, there is very apt to be trouble in the family.

In this case the young woman, after being married a few months, had evidently announced that she was pregnant. Later, when she found she was mistaken, she sought for some means by which she could find the "easiest way out."

The history given, which was, of course, partly fictitious, was as follows:

M. F., age 25, had never had any children. She had been married eleven months. Her last period had been in April or May (she was not sure which), which would make her at this time five or six months pregnant. She said that the day before she had been standing on a box reaching for something on a shelf, when she fell, striking the floor in a sitting position. This was at 4 o'clock in the afternoon, and nothing further had happened until 3 o'clock the next morning, at which time she said she had had a severe, prolonged pain and had passed a mass of tissue, which was shown me for examination.

In the poor light which was available, this might easily have been mistaken for an afterbirth. One feature, however, demanded inquiry, and that was how there could be so well developed an umbilical cord, but no foetus. She had not been to an old-fashioned toilet, and there seemed no other way of accounting for the absence of the foetus.

Although it is better, I believe, not to make any vaginal examination in such cases, at least in the midst of such unsanitary surroundings, yet here was a case in which it seemed to be imperative. Accordingly, a vaginal examination was made with a sterile glove. There was no softening or relaxation of the perineum, the cervix was hard and undilated, and the fundus was in the normal non-pregnant position.

The mass of tissue was taken away for further examination, and, in order that there might be no question, was sectioned and examined under the microscope.

Here is what this ignorant Mexican woman had done. She had taken a pig's liver, and on the undersurface of this she had punched a couple of holes. Through these she had passed a piece of pig's intestine, one end of which was then split; through the opening thus made she had passed the other end of the piece of intestine, and the loop thus formed had been drawn up tight, so that this "cord," which was about eight inches in length, appeared to come directly from the liver substance without any knot being apparent. Along with this work of art she had included a couple of collapsed lungs, evidently also from the pig, which served in the role of blood-clots.

As there seemed nothing to gain by undeceiving her family, they are still under the impression that a most unfortunate miscarriage has taken place.

Rowell Bldg.

A FEW NOTES ON HALLE'S CLINIC, WITH ESPECIAL REFERENCE TO HIS ENDONASAL SURGERY*

By ROBERT D. COHN, M. D., San Francisco

On my leaving Berlin this summer, after having spent a couple of months at Halle's clinic, it appeared to me a matter of regret that Halle's varied and important contributions to rhino-laryngology, especially operative, during the past ten to fifteen years had thus far not appeared in book-form and were accessible only in scattered journal articles and society reports, as well as to some extent in recent text-books. Halle stated that such a book is in preparation, but that owing to conditions in Germany its publication in the immediate future seemed far from assured. He had the kindness to place at my disposal his numerous reprints. These and my own observations and jottings are the basis of these notes.

Turbinectomy—Halle does no turbinectomies. Conchotomes and turbinectomy scissors are under the ban in his clinic. With its menace of subsequent rhinitis atrophica and pharyngitis sicca, he considers turbinectomy "unphysiological mutilation." He cuts off hypertrophied tips, but never sacrifies the structure proper. In operating in the upper and posterior parts of the nasal chamber he does not amputate the middle turbinate, but secures through its temporary subluxation the necessary space in which to operate.

Submucous Septum Resection—This is the most frequent of all the operations done. There is first of all the usual indication of impaired nasal respiration *per se*. In addition to that, Halle, as early as 1900 (Zur Behandlung des Empyems der Highmoreshoehle, Berl. Klin. Woch. 1900, No. 35), advanced the theory that normal nasal respiration is the main essential for the cure of acute and chronic empyemas, especially of the antrum and sphenoid, respiratory air being necessary for the mucous membranes not only of the nose itself, but likewise of the sinuses. He believes that the normal respiratory air current, both inspiratory and expiratory, by negative pressure draws the sinus fluids from the sinuses; that this air moreover is antiseptic and, acting by suction, tends to dry out the cavities. Hence, many empyemas, especially antral, are cured spontaneously as soon as normal nasal respiratory conditions are restored. As, furthermore, almost all intranasal operations performed require a maximum of operative space, a septum correction almost invariably precedes the various operative procedures described below.

The septum correction in adults is always done under local anesthesia and its technique except in one point is that practiced by American rhinologists. The incision is a slight modification of that of Killian. The cartilage is removed with a straight Ballenger swivel knife, is then pared down somewhat and thereupon reimplanted, the septum flap being sutured with Halle's own crook-shaped needle. Infection and septum abscess are not feared.

As to the operation in children, Halle believes that it should be done only exceptionally before the twelfth year. However, he has frequently operated upon children of 8 and some as young as 4. In the last-named cases the operation was under general anesthesia; in children from 8 upward he operates, as a rule, under local anesthesia.

Operation for Closing of Septum Perforation—This was first reported, with demonstration of cases, to the Berlin Laryngological Society in 1919 and published in the "Monatsschrift fuer Ohrenheilkunde" in 1921. Up to that time Halle had done the operation in 60 cases, with reported complete success in 56 and incomplete in 4. The operation is a modification of the Yankauer plastic and consists in the formation of two or three small flaps along the lower edge of the perforation, which are turned into it and partially close it. A large semi-circular flap is then outlined above the perforation and, after being displaced downward so as completely to cover the perforation and the smaller lower flaps, is carefully sutured in place. Tampons in the opposite side serve to press the smaller flaps against it until union ensues. The crescent-shaped defect resulting in the septum above heals promptly by epithelization. A good description of the operation is to be found in Passow and Claus's "Operationen am Gehoergang, an den Tonsillen und in der Nase," Leipzig, 1923.

The operation is easy in the reading and difficult in the performing. In the one case that I witnessed the operation was done on a man of 30 for a traumatic perforation, the result of an earlier septum correction. Although local anesthesia was perfect and the patient exceptionally tractable, the operation even in Halle's hands was difficult, tedious and troublesome.

Endonasal Frontal Sinus Operation—This is Halle's chef d'oeuvre, his main contribution to rhinological surgery. It is based upon the earlier operation of Fletcher Ingals, and was developed in the years just before 1910. Halle's technique is very briefly as follows: After the usual cocaine-novocaine anesthetization the middle turbinate is subluxated toward the septum. A large muco-periosteal flap corresponding to the entire region in

* Read before the San Francisco County Medical Society, November 27, 1923.

front of the middle turbinate is then made by means of three incisions: the first from the head of the middle turbinate upward to the roof of the nose, the second extending thence along the roof of the nose to the piriform aperture, the third thence along the free edge of the aperture to the head of the inferior turbinate. The flap thus made is turned down over the inferior turbinate. The agger narium is now chiseled away, whereupon the anterior ethmoid cells and the opening into the frontal sinus come into view. With Halle's blunt-headed pear-shaped electric burrs this opening is now enlarged with ease and, above all, with safety. The frontal sinus is then curetted, the muco-periosteal flap thereupon replaced, and the nose packed. The usual simple post-operative treatment follows. A broad permanent communication between the frontal sinus and the nose results, normal natural drainage is restored, and ideal conditions are created for whatever subsequent irrigations and the like may be necessary.

Halle has never claimed that his intranasal method could or would supplant all external operations. As a matter of fact, in 1910, when he reported his first series of nineteen cases (Berl. Laryngol. Gesellschaft, November, 1910), he merely modestly hoped that in certain cases the external operation would thereby be rendered unnecessary and that within its limitations his procedure would not be without benefit. Since then his series has grown from 19 to over 850, and in the light of his experience in the past twelve years he now believes that in chronic frontal sinusitis no external operation whatever is at any time necessary in almost 95 per cent of all cases. He states that the Killian operation, which for over twenty years alone dominated the field and was the undisputed operation of choice, now no longer holds that position. Due to the uncertainty of its final results and the hazards of its outcome cosmetically, it shares, in common with all other similar external frontal sinus operations, ever-increasing disfavor.

Ethmoid Operation — Halle's present ethmoid technique, which he first reported in 1914, is as follows: The middle turbinate is subluxated and pressed tightly against the septum, whereby an unobstructed view of the middle meatus is obtained. With a long, narrow knife two sagittal incisions are made, one just under and along the lateral surface of the middle turbinate, the other along the medial surface of the lamina papyracea, both meeting at the head of the middle turbinate. The ethmoid cells within the area thus defined can now be removed with safety with punch forceps and curette, provided the operator remains within the lines of the two incisions, the middle turbinate acting as a safety-wall against injury to the cribiform plate.

This method suffices for the opening and exenteration of the middle and posterior ethmoid, not for the anterior, however. Halle exposes and obtains access to this latter, including the infundibular cells, by means of the muco-periosteal flap described above. He therefore, as a rule, clears out the anterior ethmoid cells in the course of his frontal sinus operation.

Sphenoid Operation—Halle refers to the relative rarity of sphenoid disease. He states that in some years he does not see a single chronic sphenoid empyema and that up to 1922 he had operated only thirty-four cases. While he finds that in general a more or less extensive removal of the anterior wall suffices, in some cases of long standing with pronounced degeneration of the mucosa, the opening, however large, tends to close. In these cases he makes two flaps in the shape of an H, the lower flap as large as possible. After the anterior and a large part of the inferior wall have been removed (the latter by means of his pear-shaped burr) the two flaps are turned into the cavity, where they are kept in place with small tampons.

Radical Antrum Operation—In conformity with his principle of performing all nasal operations as far as possible intranasally, Halle confines himself almost entirely to the Canfield-Sturmann method. This method obviates the necessity of an oral incision with the possibility of a subsequent fistula, the post-operative reaction is minimal, the patient can eat and drink immediately after the operation, and after-treatment through the mouth is avoided.

Blindness Following Injections into Orbit—Halle warns insistently against all pre-operative injections into the orbit. After having reported two cases of his own in which, following such injections, immediate total blindness resulted, in March, 1923, he reported four further such tragic cases in the practice of others, but coming to his notice. He believes the condition due to an acute edema in the region of the optic foramen. Precisely such a case came under my observation while at Halle's clinic: In a young girl of 18, an injection of 2 or 3 ccm. of ½ per cent novocaine had been made into the left cheek just below the lower orbital ridge preliminary to a left antral operation. By a mischance the needle probably entered the inferior orbital canal. A few moments later there followed extreme swelling of the lids and total amaurosis of the left eye with enlarged immobile pupil. Halle immediately made a number of broad and deep incisions into the orbit above and below, including a broad opening of the orbital periosteum. Great haste was necessary, he stated, as a few hours' delay would undoubtedly result in permanent blindness. On the removal of the bandage on the following morning the patient, to the relief of everyone, could count fingers, and in a few days the eye condition cleared up entirely.

Ozaena Operation—As is well known, it was Lautenschlaeger who first conceived the brilliant idea of curing ozaena by an operative narrowing of the abnormally patent nasal chambers. Whatever may be the ultimate fate of Lautenschlaeger's theories as to the etiology of ozaena, there can be no question as to the striking results of the operation he devised for this purpose. The aim of the operation is to bring the medial wall of the antrum, that is, the lateral wall of the nose, up against the septum and to keep it pressed in that position until more or less extensive union results between the turbinates and the septum.

Halle was quick to recognize both the great merits of the operation and the difficulties of its technique and promptly applied himself to the task of its simplification. Instead of the oral he chose,

as usual, the nasal route and by 1917 had perfected a method which, in its relative simplicity, is a decided advance upon the original Lautenschlaeger method. Halle's technique is briefly as follows: An L-shaped incision is made in the nasal mucosa beginning in front of the head of the middle turbinate and extending downward to the head of the inferior turbinate, thence continuing horizontally across the floor of the nose to the septum. Through this horizontal incision the mucoperiosteum lining the floor of the nose is elevated and the lower anterior portion of the nasal wall of the antrum brought into view. The entire lower border of this antral wall is now chiseled from the nasal floor, whereupon the anterior vertical border of the antral wall is chiseled through. The result is a broad opening from the nose into the antrum, which if diseased may now be readily curetted. Hereupon the entire inner (medial) antral wall is carefully pushed over to the septum, against which it is held tightly by gauze-packing in the antrum, the turbinates and septum having previously been refreshened in order to promote the formation of adhesions. These adhesions can easily be separated later in case a too pronounced narrowing of the nasal chambers follows the operation. Halle states that thus far he has not found this necessary.

In the four years from 1917 to 1921 Halle's operated cases totaled 131; of these he was able to follow up 76 longer than one year. His conclusions are: 1. Lautenschlaeger's expectations have been brilliantly realized. There is no case of genuine ozaena that cannot be at least strikingly and lastingly improved. 2. In many cases the ozaena as such is no longer recognizable; the mucosa is red, fresh, often even hypertrophic. 3. Crust formation ceases partly or entirely. 4. The foetor is so much improved in all cases that in most it disappears entirely, even in the absence of all irrigations. Only in a small minority a faint foetor persists unless irrigations are continued. 5. Some patients even report a return of the lost sense of smell, due, Halle believes, to the fact that the inspiratory air current in consequence of the narrowing of the nasal chambers is now better directed toward the nerve-ends of the olfactory nerve.

Endonasal Lacrymal Sac Operation — Halle's technique is a modification of the original West technique of 1910. In that year West reported his first series of seven cases to the Berlin Laryngological Society. From that time to this a dispute as to priority has raged between West and Halle with reference to one essential part of the operation, the point at issue being the muco-periosteal flap which, while not a part of the original procedure, is now an element of the technique of both West and Halle. Halle claims (Zeitschrift fuer Laryngol., Rhinol., etc., Leipzig, 1922) that he, Halle, was present when West presented his first report; that he recognized the shortcomings of West's operation and that he thereupon devised the flap in question, which West adopted without acknowledgment. This claim West rejects in its entirety. No more need be said here than that the controversy is a regrettable one.

A few general observations may, however, be made. Both West and Halle operate only endonasally. Neither does the Toti nor any form of combined Toti-endonasal operation. Their technique is essentially the same except that Halle cuts out a small window-shaped quadrangle from the flap before bringing it down over the lower turbinate, and counts on replacing the flap so accurately at the conclusion of the operation that its window corresponds with the bony window in the lateral nasal wall facing the sac. West considers that good on paper but not in practice and neither necessary nor advisable. Instead, he amputates the posterior end of the flap in those cases in which on its replacement at the conclusion of the operation it tends to close the bony window. There is this further difference that, while Halle excises only the medial half of the sac, West in recent years has excised it *in toto* in over one hundred cases and is now inclining more and more to the total extirpation as his usual routine.

Whatever may be the points of difference between West and Halle as to the operation, they are in entire agreement on one point, namely, that it is the most difficult of all intranasal operations. That is far more important than all else. When all is said, the ultimate fate of the operation as a generally adopted procedure will depend very much upon the facility with which its technique can be generally acquired. Mosher reports (Annals of Otology, Rhinology, etc., March, 1923) that after a series of seven cases, having found it "more difficult, indirect and to a great extent blind," he abandoned it for the combined intranasal and external operation, finding this latter "easier, direct, done by sight, with less danger of opening the orbit." After having studied the endonasal operation with both Halle and West, and having done a series of six operations under West, I am not prepared at the present time to take issue with Mosher. On the contrary I find Mosher's attitude reasonable, consider the question an open one and believe that it remains for the future to fix upon a generally accepted operation of choice.

SUMMARY

The swing is definitely away from the radical external nasal surgery of the past twenty years.

As far as possible all nasal operations should be done intranasally, and not by an external or an oral route.

Establishment of normal nasal respiration is in many cases all that is necessary for the cure of chronic nasal empyemas, especially antral and sphenoidal.

Ozaena, hitherto incurable, is now a curable condition. That is the outstanding achievement of recent rhinological surgery.

The problem of chronic lachrymal disease, long the despair of oculists, has been virtually solved. The key to the solution is the restoration of drainage from the conjunctival sac into the nose. The only question remaining concerns the surgical technique best suited to that end.

209 Post Street.

PRESENT-DAY X-RAY AND RADIUM THERAPY*

By CLAUDE E. PIERSALL, Reno

Since the discovery of the X-ray in 1895 and of radium in 1898, the world has been attentively watching the gradually accumulating evidence of their increasing usefulness in the diagnosis and treatment of disease.

It is now generally agreed that X-ray and radium have established an important place in the treatment, among other diseases, of both benign and malignant neoplasms.

In considering briefly the effects of radiation upon both the normal and pathological cells, the law of Bergonie and Tribandeau is quoted:

"Immature cells and cells in an active state of division are more sensitive to the X-ray than are cells which have already acquired their fixed adult, morphological or physiological characters."

This law has been repeatedly verified by many American pathologists. It applies equally to the application of radium. It has been proved, both experimentally and clinically, that insufficient doses of radium tend to render animal tissues hyperemic and only stimulate growth rather than produce cellular degeneration. This phenomenon was perhaps largely responsible for the difference of views among some of the earlier workers with radium. It is because the abnormal cells are more susceptible to the rays than are normal cells that radiation can be successfully used. The more highly differentiated the normal cells the more resistant they are to rays. Brain cells withstand heavier doses than any other tissue.

It was early discovered that radium emits three classes of rays of different degrees of penetration and clinical activity, and which produce different effect upon cellular life. This explains the need of various metal and rubber filters to eliminate the effects of one or more groups of these rays, and to give the highest degree of radiation upon the particular depth or tissue we desire to effect. The development of this knowledge, and the manufacture of radium needles and emanation tubes, which can be inserted directly into the tumor mass, has materially improved the percentage of cures in cancer of the deeper and more remote structures of the body. Likewise the improved X-ray machinery and advanced knowledge of its uses assist the radiologist.

Radiation therapy has been tried for almost all human ills. Its most conspicuous successes have been attained in that class of disease manifested by hyperplasia of soft tissue or lawless cellular proliferation.

The difference in the X-rays and the radium rays and their uses are briefly these: They are very similar, but the radium is the stronger potentiality. It requires no machinery to use it. It is small in size and is more applicable in lesions of the orifices, in crevices of skin, in open wounds or to be buried in neoplasms, while the X-rays require heavy machinery for deep therapy, are not applied at so close a range, and by reason of their wider radiation are preferable in covering large areas. The two thousand volt deep therapy apparatus is at least a time saver, and it can now be used to advantage in some cases where radium is yet applicable and formerly was preferable.

This age finds radium and X-rays to be the agents of first choice in the treatment of four groups of cases. This classification is not essentially different from that of Lain:

First Group—Angiomas, birthmarks, leucoplakia, keloids, moles, warts, uterine fibroids, or other non-malignant uterine hemorrhages.

Second Group—In inoperable and post-operative cancer and in such diseases as Hodgkin's disease, lymphatic leukemias or lymphosarcomas, radiation is used to give comfort, prolong life, and give hope for an occasional cure.

Third Group—All pre-cancerous lesions such as papillomas, pigmented moles, senile keratomas and leucoplakias, also non-suppurative tubercular adenitis, all premetastatic cancers, especially about the face, and cancer limited to the cervix uteri.

Fourth Group — In this last group might be placed leucorrhea, subacute and chronic, the enlarged thymus glands in children, toxic goiters, chronic and hypertrophied tonsils, soft nasal polypi after surgical removal, cancer of the bladder, cancer of the rectum, and cancer of the esophagus.

Many other conditions are improved or cured by radiation. Some of these are chronic eczema, psoriasis, lichen planus, lupus vulgaris, rodent ulcer, sarcoma, sycosis, acne, favus, actinomycosis, blastomycosis, and hyperidrosis.

Fortunately, however, we have the ultraviolet or actinic rays, which are more effective in many such conditions or are used as an adjuvant to the X-rays or radium, and other well-known remedies. Incidentally, these quartz lamps which give the ultraviolet light are an aid in preventing or healing X-ray burns.

As to dosage for treatment of the diseases named above, there is no set amount of radiation required, because each case may vary as to the degree of the disease, location of the lesion, and also susceptibility of the patient to radiation. Yet we do recognize that certain types of diseases require within certain limits a lethal dose for their particular pathological cell structure. A few examples follow:

An ordinary wart requires about 50 mg.-hrs.—that is, 50 mg. of radium for one hour, or its equivalent of 25 mg. for two hours.

Keloids and birthmarks vary according to the age of both the growth and the patient, as well as the size and nature of the growth. Some keloids require a destructive effect, and others absorption doses. Fibroids and myopathic lesions of the uterus require from 200 mg.-hrs. to 1500 mg.-hrs., depending upon the age of the patient, size of the uterus, amount of bleeding, and other factors.

Cancer of the cervix uteri or the fundus requires from 3500 to 6000 mg.-hrs. within six days' time, followed with heavy crossfire X-ray treatments, given after several weeks interval through several portals of entry.

Contra-indications for radiation therapy are:

Pedunculated fibroids; fibroids causing acute

* Read before the twentieth annual meeting of the Nevada State Medical Association, Reno, September 28th and 29th.

pressure symptoms; those very soft, or over 12 cm. in diameter; any acute inflammatory process, particularly in the tubes or ovaries, and infections, except when in or near some malignant growth.

In melanoepitheloma and melanosarcoma, and carcinoma of the esophagus, only palliation may be expected. There is no satisfactory method as yet for treating malignancy in the gastro-intestinal tract.

In treating any malignancy, that part or organ affected should not be allowed to function, in order to give physiological rest, or, in other words, to stop all irritation. If it is a cancerous uterus, coition is not to be allowed. If in the rectum, a colostomy should be done. In case of breast cancers, for example, pre-operative radiation makes some inoperable cases operable by closing the lymphatics, by producing destruction of the surrounding malignant cells, by producing immunizing substances, and by preventing the grafting of cancer cells with the knife. Such radiation often stops the cancer pain within a few hours. Post-operative radiation to all surrounding lymphatics prevents or retards recurrences of the growth, but is not necessary if pre-operative radiation was sufficiently lethal. In carcinoma of the prostate and bladder, radium tubes or needles are buried at the time of operation. Some favorable reports, however, have been made on the use of radium packs or deep X-ray treatment without operation or implantation of radium. Cancer of the fundus uteri, if known to be localized, is a surgical case after radiation, provided the patient is able to stand a radical removal. Cancer of the cervix is always a radium case.

Sarcoma of the post-nasal space or the tonsil is best treated with radium; in other localities, we advise radiation and surgery.

For osteosarcomas, surgery, X-ray and radium or deep X-ray therapy are advisable. For lymphosarcoma, radiation alone is sufficient. The reason for the high mortality rate of malignant cases is that they are not treated for malignancy until a definite diagnosis is made. A small chronic lump in the breast, a chronic sore or fissure or induration should be treated early as a cancer without a biopsy.

In conclusion it may be said that the leading internists and surgeons realize that radiation therapy is progressively filling a long-needed gap in medicine of both benign and malignant diseases.

Board of Education Assigns Physicians' Work to Technicians—When all physicians are employed and directed by laymen news items like the following (Journal A. M. A., September 22, 1923) will not be interesting:

"The three physicians who for a number of years have been retained by the Board of Education of Belleville regularly to 'inspect' the physical condition of school children, will not be reappointed. Their former duties in this regard have been taken over by a school nurse employed at $160 a month, which means a saving to the board of $900 a year. Abandonment of the school physician system, it is said, was due largely to a controversy that arose last year in which the physicians objected to the school nurse making diagnoses. Those who will not be reappointed are Drs. Adolph E. Hansing, Henry Reis Jr., and Charles R. Huggins.

ROENTGEN-RAY THERAPY IN THYROTOXICOSIS; ITS EFFECT AS MEASURED BY THE BASAL METABOLIC RATE *

By J MARION READ, M. D., San Francisco

The feature possessed in common by all of the cases herein reported was a definite increase in the basal metabolic rate, together with other variable signs and symptoms indicating abnormal thyroid function. Many presented the typical Graves syndrome, a few had adenomata with toxic manifestations and some were atypical, or "formes frustes" types. From a therapeutic viewpoint, definite classification is desirable, but in some cases it is difficult. Roentgen irradiation is a therapeutic measure, which seems to have a beneficial effect on a great majority of patients suffering from thyrotoxic signs and symptoms. By distinguishing between the Graves' syndrome and toxic adenoma, considerable progress has been made and more satisfactory results obtained. Most observers agree that the treatment of choice in patients presenting toxic adenomata is surgical intervention. Considering the neoplastic nature of adenomata, excision is the logical procedure, and the results obtained have justified its employment. The situation, in respect to Graves' disease, is not so satisfactory, and there is much controversy over the proper therapeutic course to follow in caring for sufferers with this disease. Some of the factors contributing to this state of uncertainty will be suggested in the course of this discussion, and illustrative cases will be cited.

Since September, 1920, most of the patients receiving Roentgen-ray treatment for thyrotoxicosis at St. Luke's Hospital have had one or more determinations of the basal metabolic rate. During the greater part of this time, an estimation of the rate has been prerequisite to the institution of therapy, and the test has been repeated monthly during the period of irradiation. During the past three years, over fifty patients have received Roentgen-ray exposures to the thyroid, and their cases constitute the basis of this report. Only a few were clinic cases, the greater number being referred by private physicians.

Through the kindness and interest of these physicians, it has been possible to obtain follow-up reports on many of the patients, but absence of basal metabolic rate determinations at the conclusion of treatment in many instances is to be deplored.

The cases have been divided into two classes, namely, Graves' disease and toxic adenoma. Not infrequently, however, a patient presented a clinical picture, together with a history and physical examination, which made classification difficult. This applied particularly to those patients with slight, if any, thyroid enlargement, who complained of nervousness, small loss of weight, and some heart hurry, but who lacked all the classical eye-signs of exophthalmic goiter. The basal metabolic rate in these cases was rarely above plus 45 per

* Presented to the Section on Radiology at the Fifty-second Annual Session of the California Medical Association, San Francisco, June, 1923.

cent, and they responded particularly well to Roentgen irradiation. This type has been referred to sometimes as "simple hyperthyroidism," but the term is objectionable, as it is probably neither "simple" nor "hyperthyroidism."

Standard technique, carried out under the direction of Dr. J. M. Rehfisch, roentgenologist of St. Luke's Hospital, has been followed in all cases. In the earlier cases exposures to different portions of the gland were made at weekly intervals, but more recently treatment to the whole thyroid has been administered once a month. This is the technique successfully followed at the Massachusetts General Hospital by Holmes.

The longest period of observation was three years, though reliable histories and hospital records for the past twelve years were available in some cases. Some of the patients are still under observation and receiving treatment, and a future report will be made on the further progress of this work. A more careful study will then be possible, since the X-ray department will not irradiate any thyroids without a preliminary estimation of the basal metabolic rate and redeterminations of the rate at regular intervals. Past experience, both here and elsewhere, has shown this to be the only safe policy to pursue.

It is now almost universally conceded that the basal metabolic rate is the most reliable single test in thyrotoxic cases, and its fluctuations are accompanied by subjective and other objective changes in the patient's condition. The regularity with which the pulse rate, for example, may follow changes in the metabolic rate is illustrated in Figure 4. For these reasons the basal metabolic rate has been used as a criterion of change or cure, though the patient's own statement or that of the attending physician as to condition has been accepted where no determination of the rate was obtained at the conclusion of treatment. A few patients ceased treatment and were lost from observation before the rate returned to normal, but in several such cases reliable follow-up reports were obtained.

Figure 1 shows the course of seventeen patients,

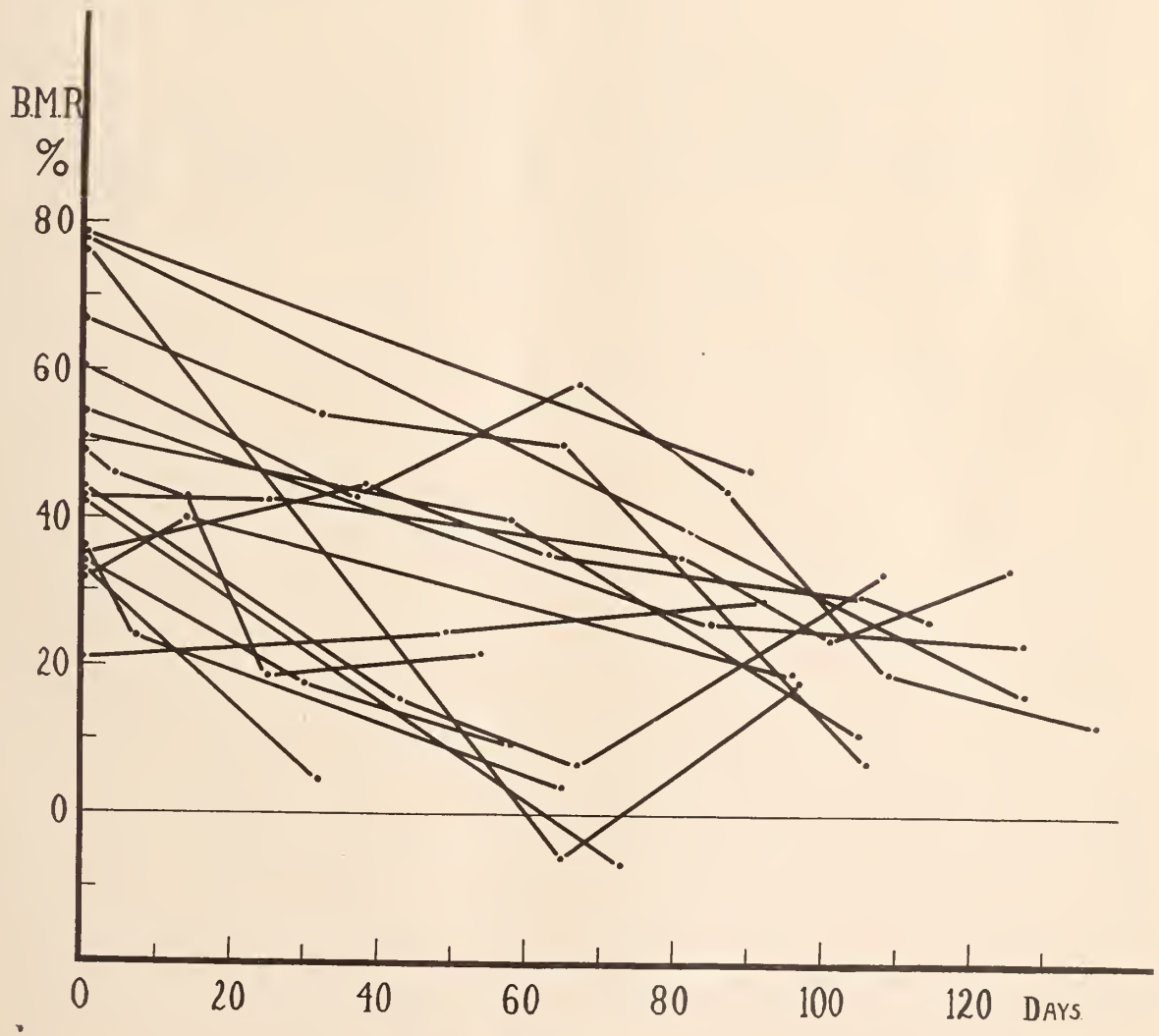

Figure 1

Course of seventeen patients with Graves disease treated with Roentgen ray. Estimations of the basal metabolic rate were made at monthly intervals in the majority of cases. Five have come down to less than plus 10 per cent in less than four months; five others have reached less than plus 20 per cent in the same time. Four of those with rates remaining above plus 20 per cent at the last observation have since reported themselves well. Three with rates above plus 20 per cent are still under treatment.

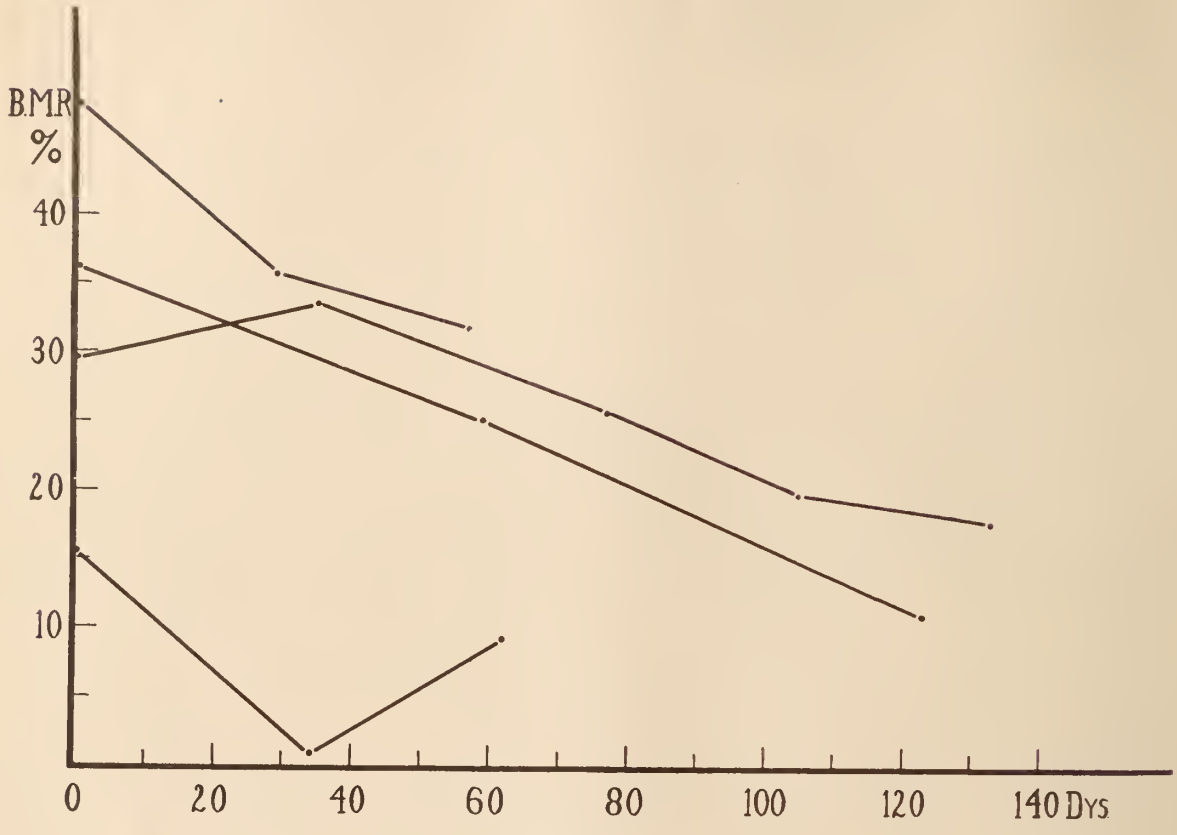

Figure 2

Course of four patients with toxic adenomata treated with Roentgen ray. Two are relieved of their toxic manifestations; one is improved but not well, and one is still under treatment.

who were observed for four months or less. It may be observed that most of them reach less than plus 20 per cent within that time. Four of those who do not have reported themselves cured. Five are still under observation.

Attention is directed to the two instances where the basal metabolic rate dropped below the zero line at the first estimation of the rate following treatment. These are both recent cases and are still under observation. One received three and the other four treatments over the whole gland at an interval of three weeks rather than weekly treatments over different portions of the gland, as was the former technique and that used in the greater number of cases herein reported. The reduction in rate was rather startling and more than could be ascribed to spontaneous improvement, for it occurred too rapidly. Although no myxoedemas had resulted from X-ray treatment alone up to this time, it was feared that the more intensive form of treatment might be producing that undesirable result in these two patients. However, a second estimation of the rate in one case showed it to be plus 18 per cent, and the other patient, who is out of the city, reports herself feeling fine, and will report for a determination of her rate upon returning to San Francisco.

Full realization of the natural course of Graves' disease has raised some skepticism in the writer's mind as to what part the Roentgen ray really played in the improvement and reduction in metabolic rate observed in these patients. But observation of the two cases cited above has convinced me that, in some cases at least, Roentgen-ray irradiation is capable of producing marked and rapid reduction in the metabolic rate which is accompanied by corresponding general improvement.

Only six patients with definite adenomata have been treated. Two are cured, two showed no change and were advised to submit to surgical removal of the tumor. One of these has been operated upon, but the other has so far refused operation. One is still under observation, and the remaining one has been lost from sight, though she showed improvement while under treatment. Two of these patients had uterine fibroids, illustrating an association which seems to be more than accidental.

The course of four of these patients is shown in Figure 2. Two of these had fibroids. The one whose curve is highest has ceased uterine-bleeding under X-ray treatment, but refuses surgical aid for the toxic adenoma which shows no regression under X-ray. The patient whose last rate was plus 18 per cent also had fibroids, which have been successfully removed subsequent to the last estimation of her basal metabolic rate, and she is reported as being in excellent health and without thyrotoxic signs or symptoms. The patient whose initial rate was only plus 16 per cent had a large adenoma of the right lobe, with definite toxic symptoms. One

irradiation produced the drop in rate noted and a decrease of two centimeters in the neck circumference. These were accompanied by abatement of subjective symptoms.

TABLE I

Fifty Thyrotoxic Patients Treated with Roentgen Ray

	No. of B. M. R. Tests			—Results—					Prior Treatment		
	Two or More	One	None	Cured	Improved	No Change	Not Known	Remaining Under Treatment	Surgery	X-ray	Subsequently Operated Upon
Graves' Disease	34	5	5	19	9	7	2	7	3	1	8
Toxic Adenoma	4	1	1	2	1	1	1	1	..	..	1
Total	38	6	6	21	10	8	3	8	..	..	9

TABLE II

Thirty Patients Treated Surgically

	Basal Metabolic Rate		Previous Treatment		Deaths	Mortality Pct.
	Recorded	Unrecorded	X-ray	Surgery		
Graves' Disease	12	1	6	1	3*	23
Adenoma	2	1	..	..	..	..
Cyst	1	2	1	..	..	..
Unclassified	4	7	..	..	1	9
Total	19	11	7	1	4	13

*One patient died three months after double ligation.

Table I summarizes the result of Roentgen irradiation in fifty thyrotoxic patients. Forty-three were treated at St. Luke's Hospital, and the records of seven are from private practice and the Stanford medical wards at the San Francisco Hospital. There were no deaths and no myxoedema in cases treated solely by Roentgen ray. Only one patient, whose initial basal metabolic rate was 112 per cent above normal, was kept in bed more than a week or two. About half of the patients followed their usual occupations, although rest was advised and they were warned against fatigue.

Only approximate accuracy in the estimation of results can be attained. In every case where it was possible, the statement of the patient or attending physician was used as a basis. Experience has taught the writer to be very cautious in saying a patient with exophthalmic goiter is cured. None so classified in this report, however, have since had a recrudescence. The cases indicated as showing no change during X-ray treatment were so classified, because they were operated on before treatment had been persisted in long enough to produce marked improvement. Even these patients showed improvement in most cases, but acceptance of the attending surgeon's estimate of the value of Roentgen irradiation has made the classification of "no change" seem advisable. It at least affords more excuse for operation.

Figure 3 shows the metabolic rate changes in nine patients who were operated upon. One re-

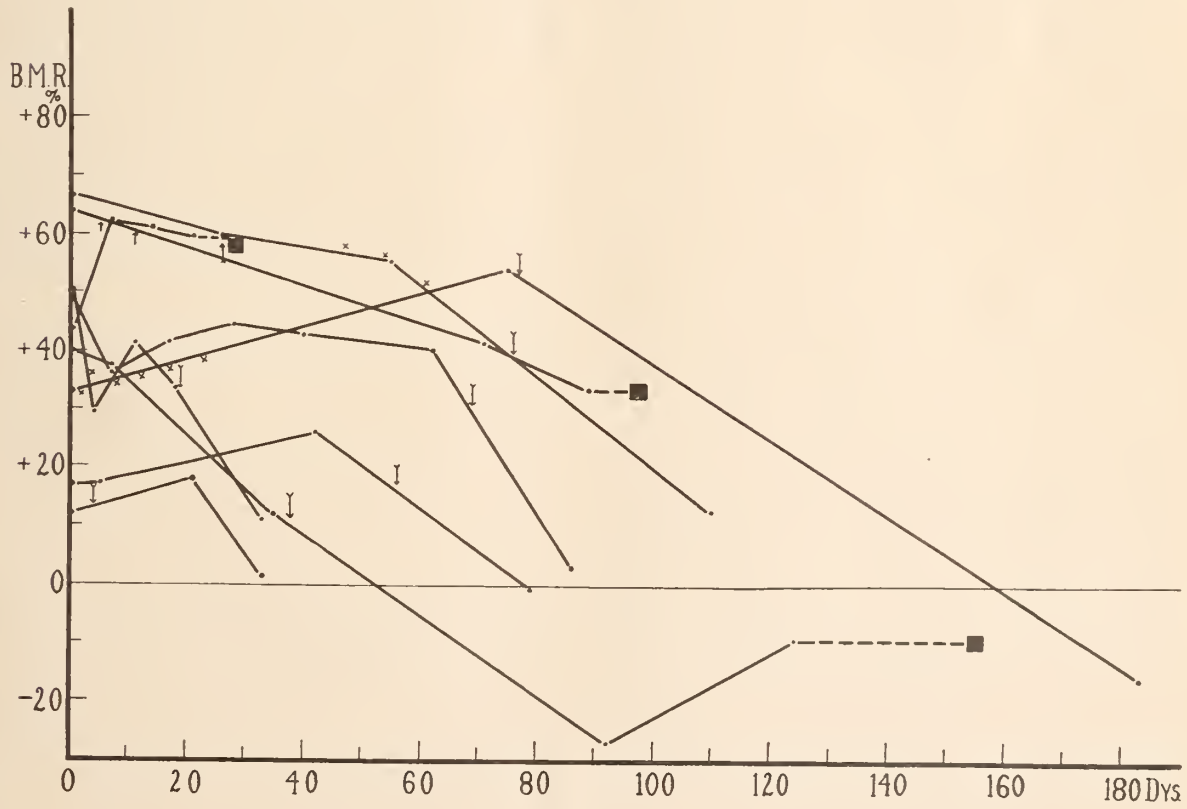

Figure 3

Course of nine patients with Graves' disease submitted to operation. Large arrows indicate sub-total thyroidectomy, small arrows ligations. X indicates Roentgen ray treatments which four of the patients received prior to operation. Black squares indicate death. Both patients whose rates dropped to points below the zero line had received Roentgen ray exposures before operation, and both developed myxoedema after operation. One of these two subsequently died.

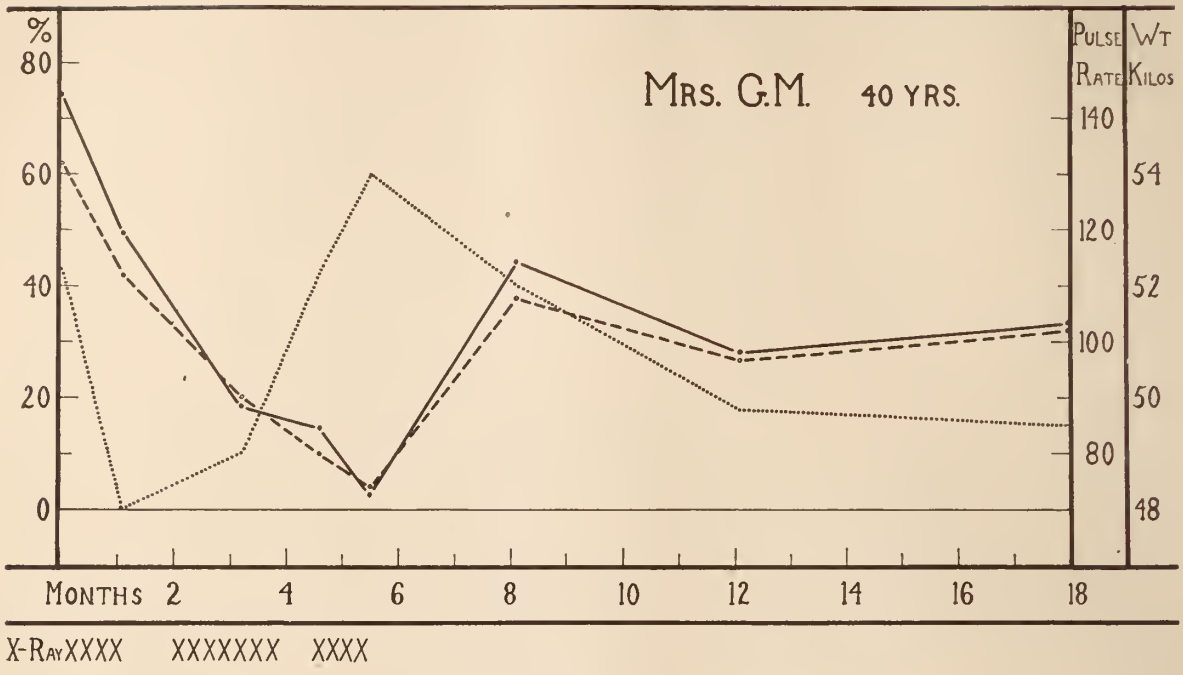

Figure 4

Course of patient Mrs. G. M., 40 years of age, observed for one and a half years. Solid line, basal metabolic rate. Broken line, pulse rate. Dotted line, weight in kilos. This patient had had a sub-total thyroidectomy three years prior to the date of the first estimation of her basal metabolic rate, which was plus 74 per cent.

ceived only double ligation, with a slight drop in the rate, but death supervened three months later as a result of thyrotoxicosis, though the metabolic rate was only plus 33 per cent eight days before death. A toxic psychosis was a marked feature in this case. There were two other deaths, one occurring the day following operation on a patient whose basal metabolic rate was plus 59 per cent. Most of the patients showed rates very close to normal limits a few weeks after operation. Two had rates below minus 10 per cent. One of these had a prior lobectomy, but still presented thyrotoxic signs and symptoms, having a rate of plus 35 per cent when he entered the hospital. Under rest in bed and X-ray treatment, this rate fell to plus 12 per cent by the seventh week, which was thought to be a propitious time for removal of the remaining lobe. The day following operation the patient had a tetanic seizure, which recurred along with convulsions and periods of unconsciousness up to the time of death. He lived for four months after operation, during which time his basal metabolic rate fell to minus 27 per cent, but was raised to minus 11 per cent by administration of thyroxin.

During the period covered by this study there were performed twenty-nine thyroidectomies and two ligations on thirty patients in St. Luke's Hospital. Table 2 gives the complete data. These data include the cases illustrated in Figure 3, these being the only ones whose basal metabolic rates had been estimated before and after operation. It may be noted that there were thirteen cases of exophthalmic goiter and three of toxic adenoma, and that three out of the four fatalities were in this group. The other death resulted from hemorrhage at operation on a non-toxic goiter. The operative mortality for all classes is 13 per cent, and for thyrotoxic cases a little more than 18 per cent. This series is too small to warrant any conclusions, but it is probable that the average mortality rate among thyrotoxic patients treated surgically is between 15 and 25 per cent, except in such clinics as Crile's and the Mayo's.

In evaluating the different therapeutic procedures employed in dealing with thyrotoxicosis, especially Graves' syndrome, there is a proneness to forget that spontaneous cures are frequent and that there is a strong tendency for the disease to run a fairly definite course marked by periods of improvement alternating with recrudescences of more or less severity. Recrudescences do not occur in some cases, but they seem to be the rule and it seems difficult to prevent them by any known method of treatment, including sub-total thyroidectomy and Roentgen irradiation. An illustrative case will be cited to make this clear:

Case 310—Mrs. G. M., age 40, Italian housewife, about eleven years ago consulted a physician, who diagnosed exophthalmic goiter and advised operation. She declined and called another physician, who also advised surgical intervention and refused to treat her unless she consented to operation. She persisted in her request for medical treatment, and the second physician consented to try a substitute for surgery. He treated her with camphor mono-

bromate and ergot, and to his surprise she recovered. In six years she again consulted him and presented the typical picture of Graves' disease. Operation was advised and on February 27, 1918, the right lobe, isthmus, and portion of the left lobe were removed. She made a satisfactory recovery. Because her trouble had first come on with childbearing, she was advised not to become pregnant again following operation; but, believing she was cured, in 1922 she again became pregnant and experienced a return of all her old trouble. At this time she came under my observation, being referred for an estimation of the basal metabolic rate, which proved to be plus 74 per cent. She then presented the classical signs of Graves' disease.

Figure 4 shows her course from that time to the present. She aborted at six months, and was given X-ray treatment. The metabolic rate returned to normal in five months, being accompanied by a gain of fifteen pounds in weight and a decrease in pulse rate from 132 to 72. Tremor, goiter, and eye-signs also disappeared. The patient was again cured. Three months later the rate was plus 44 per cent, with a subsequent drop as shown on the chart. She then had some teeth removed under local anesthesia, which resulted in so incapacitating her that she was confined to bed for three months. The attending physician ascribed her condition to cocaine poisoning. The last estimation of her metabolic rate was on September 25, 1923, when it was plus 33 per cent. She said then that four months prior to this her heart beat very hard and fast, she lost weight, and was so nervous she could not have cooperated enough to have a test made to determine the metabolic rate. Since she was a practiced subject by this time, one may assume that the rate must have been much higher at about fourteen months in Figure 1 than the straight line connecting the last two observations indicated.

This case illustrates the influence of pregnancy on Graves' disease, as well as the tendency of the disease toward recrudescence. Furthermore, this patient was "cured" once by medicines and rest and again by surgery and the rest incident thereto, and a third time by Roentgen rays. In spite of all this she refuses to remain cured, but continues to present the signs and symptoms which we call thyrotoxic. Obviously, the cause of her disease has not been removed. It is interesting to note that this patient presents no evidence of myocardial damage. There is no irregularity of pulse and no signs or symptoms of decompensation.

CONCLUSIONS

1. The Roentgen ray seems to be effective in reducing the metabolic rate, together with the toxic signs and symptoms in thyrotoxic patients.

2. Determination of the basal metabolic rate affords the best check on the result of therapy and should be made routine in treatment with X-ray.

3. A period of three to six months is necessary to secure marked improvement or return to normal. The higher the initial rate the longer must be the period of treatment.

4. No patients are made worse by irradiation and no myxoedemas resulted therefrom.

5. No deaths have occurred in this series of fifty cases in patients treated with X-ray alone.

Relation of Pruritus of Anus to Chronic Diseases of Abdominal and Pelvic Viscera—In many of those chronic diseases of the stomach associated with dyspepsia, chronic gastritis, J. F. Montague, New York (Journal A. M. A., November 17, 1923), asserts there is added to the clinical picture the condition known as anal pruritis. This is particularly true in cases associated with much gastric fermentation. In these cases, a cure or relief of the gastric condition often brings about a parallel relief in the pruritus. Medical literature reports the association in some cases of carcinoma of the stomach with pruritus; and many other chronic diseases of the gastro-intestinal tract, such as chronic colitis, chronic constipation and fecal retention, have also been observed to have an apparent relation with the causation of pruritus of the perineum. In a closely similar manner, an identical apparent relation has been seen to exist in some patients with chronic diseases of the genito-urinary tract. As examples of this, chronic endometritis, chronic prostatitis, hypertrophied prostate and chronic urethritis may be mentioned. Of the other chronic visceral diseases which at times appear to bear a relation to this condition, obstructive derangements of the liver, such as hypertrophic cirrhosis of the liver, are notable instances. Chronic cholecystitis, chronic nephritis, cystic calculus and neoplastic growths of the liver have each contributed their share of examples of this relation to pruritus of the anus or perineum. J. F. Montague believes that all cases of pruritus of the anus can be divided clinically into two classes: The one, a direct pruritus (pruritus ani) due to the direct irritation of the peripheral nerve endings in the pruritic zone, in which cases the source of irritation actually causes a primary pathologic condition whose direct nature can be demonstrated by the abolition of pruritic sensation by local anesthetization or superficial neurotomy; the other, an indirect pruritus (anal pruritus) due to the perception of the pruritic sensation which in consciousness is referred to the pruritic zone, an area which is at the inception of the pruritus devoid of any pathologic condition at all. This phenomenon is due to the transference of an irritable stimulus from the visceral afferent nerves to a normal somatic afferent nerve channel or pathway, and the consequent misreference or error in localization of the sensation. This indirect pruritus, although devoid of local lesions at its inception, induces a desire to scratch which results in the pathologic changes previously noted; namely, first, a traumatic, chronic dermatitis, and in many cases, secondly, an infective chronic dermatitis. These secondary pathologic changes in the tissues of the pruritic zone lead to an added component of direct pruritis. As a matter of clinical fact, sooner or later in all these cases of indirect pruritis there is superimposed the element of direct pruritis. In this type of pruritis, local therapeutic measures are not indicated unless the patient's efforts at relief, such as scratching and rubbing, have induced a direct pruritis either of a mechanical or an infective nature.

MENINGITIS OF OTITIC ORIGIN*

By J. FRANK FRIESEN, M. D., Los Angeles

In presenting the subject of otitic meningitis, I am limiting the scope to the recoverable types of meningitis caused by middle ear infections. The meningitis of meningococcic origin is excluded.

Leptomeningitis following a middle ear infection, producing all of the typical meningeal symptoms, was at one time regarded as a hopeless condition, but the last few years the prognosis has become more favorable in the light of so many records of authentic recoveries.

It is only more recently that a differential diagnosis between a diffuse purulent meningitis and other forms has been accurately determined.

In analyzing these recoverable types of meningitis more closely, we first recognize the fact that they are secondary to meningeal irritation or an intracranial infection, usually of otitic origin.

If the involvement is extradural and the infection does not extend beyond the dura, a localized pachymeningitis results, in which the pia and arachnoid have escaped actual infection and no pus or bacteria are found in the spinal fluid. The cause of this type of meningitis is a meningeal irritation from an adjacent infective focus. Eagleton speaks of these cases as a "protective meningitis." Plautt and Schottmuller have classified them as a "sympathetic meningitis," and Sharp, as "serous meningitis."

If an infection is slowly spreading into the subdural spaces in the course of a middle ear or mastoid disease, then there is set up sufficient tissue reaction to wall off and limit the suppurative inflammation in the pia and arachnoid. This circumscribed or localized purulent meningitis may follow practically the same course clinically as a diffuse process.

During the last year several patients with otitis meningitis followed by recovery, have come under my observation. I will give a few brief case-reports, which possibly will convey a clearer impression of the localized or circumscribed form of meningitis than the description.

Case 1—B. G., female, 8 years of age, was admitted to the Los Angeles General Hospital, August 20, 1922, with the diagnosis of a chronic left middle ear infection and an acute intracranial invasion.

The ear had been discharging intermittently for five years. A year ago she had an operation for the removal of an aural polyp; also the tonsils and adenoids.

Her symptoms on admission were pain in the left ear, headache, and restlessness of several days' duration.

The examination disclosed a definite cervical rigidity with a suggestive Kernig. A lumbar puncture was done, the spinal fluid was turbid and under increased pressure. Microscopic examination revealed numerous puss cells, few lymphocytes, but no bacteria. The culture was sterile. Another examination of the spinal fluid five days later gave the same report.

The child was operated upon. The left mastoid filled with a large cholesteotoma. Further exploration revealed an extra-dural abscess.

The patient had a stormy career during her stay in the hospital, but finally made a complete recovery.

Case 2—M. M., a male 18 years of age, was admitted to the Los Angeles General Hospital October 2, 1922, with a history of pain in the left ear for two weeks. The examination disclosed an acute left mastoiditis with the classical symptoms of meningitis such as stupor, rigidity of the neck, and a positive Kernig.

The report of the examination of the spinal fluid was as follows: Pressure of the fluid, slightly increased. Slight turbidity, 1226 cells per cmm., globulin negative. The fluid did not reduce Haynes solution. Direct smear showed numerous pus cells, but no bacteria. Culture showed no growth.

A simple mastoidectomy was performed and pus found in the mastoid antrum, the mastoid entirely sclerosed, and all cells absent. The dura and sinus were uncovered, with no evidence of further involvement. A smear and culture of the pus showed the staphylococcus albus. A blood culture proved negative.

The patient became worse after the operation, and all of the meningeal symptoms were more marked. He was comatose at times and difficult to arouse. Several spinal punctures were done at regular intervals, and quantities of fluid varying from 20 cc. to 45 cc. removed at one time. The patient made a perfect recovery and was discharged October 29.

Case 3—F. A., a girl, 9 years of age, entered the Los Angeles General Hospital January 16, 1923, acutely ill with all signs and symptoms of a cerebrospinal meningitis.

The left ear was discharging, and she had acute mastoiditis on the same side.

A lumbar puncture was done and 20 cc. of cloudy fluid under increased pressure removed. Fifteen cc. of anti-meningococcic serum was introduced by gravity. Examination of spinal fluid; turbid, globulin positive 1500 cells per cu. mm. A smear showed a few grams positive cocci (staphylococci) (apparently contamination); also a few pus cells. A subsequent culture proved to be sterile.

A simple mastoidectomy was performed. The mastoid cells were filled with pus. The sinus and dura apparently were not infected. A culture of the pus from the mastoid showed a growth of non-hemolytic streptococci.

The patient made an uneventful recovery, and was discharged two weeks after entering the hospital.

Clinically, these patients have the classical picture of a true meningitis, and the symptoms may vary from the mild to the severest type, such as the elevation of temperature, headache, drowsiness, stupor, rigidity of the neck, Kernig's sign, etc.

Mygind, of Copenhagen, reports a series of 210 cases of otogenic meningitis, with a recovery of 28 per cent after operation. Chronic suppurations of the middle ear were decidedly more frequently the cause of the benign (recoverable) meningitis than that of the malignant (fatal). In a chronic case there is a slow walling-off process going on, and the prognosis is decidedly better than in the acute cases. Streptococcus infection was predominant in the benign cases, while the pneumococcus infection played a comparatively important part in the malignant cases.

The lumbar puncture is very significant. As a rule, in the benign, or recoverable, cases the cerebrospinal fluid is clear or slightly turbid, with moderately high pressure. The cells are usually polymorpho-nuclear, and there is a moderate increase in the albumin content. Bacteria are usually absent.

If there is a known or suspected middle ear infection, together with the findings of a spinal fluid as has just been described, one must consider the possibility of an epidemic, tuberculosis or syphilitic

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meningitis, having no causal relationship to the ear suppuration.

The malignant or fatal cases of meningitis reveal a turbid fluid with very high pressure, and bacteria are usually present.

Yet there are exceptions to this rule, and cases have recovered where the turbid cerebro-spinal fluid showed the process of bacteria. Gradenigo has reported two cases of typical meningitis that showed the presence of staphylococci in the spinal fluid, with recovery after operation.

If bacteria are found to be present on culture of the spinal fluid, this should not be held as absolute proof unless confirmed by a subsequent lumbar puncture and culture.

On the other hand, the absence of bacteria in a turbid spinal fluid does not rule out a diffuse leptomeningitis. Yerger reports eleven cases of diffuse leptomeningitis seen at necropsy in which cultures had been made, and only four had revealed the presence of bacteria.

Recent investigations have proven that the cerebro-spinal fluid is a circulatory medium, and the character of the fluid obtained by lumbar puncture does not always indicate the state of the leptomeninges in the spinal canal.

Most observers believe that these cases of recovery have belonged to the circumscribed form of purulent meningitis, and that diffuse leptomeningitis is a hopelessly fatal disease which the surgeon is powerless to relieve.

From a bacteriological point of view, the pneumococcus leptomeningitis is regarded as the most fatal type. This pneumococcus is often described as the streptococcus mucosa capsulatus. The fulminating character of this type is usually due to a secondary blood sepsis. The streptococcus and staphylococcus meningitis are much more common, but not so virulent. The least virulent is the meningococcic meningitis.

When an ear infection reveals meningeal symptoms, a lumbar puncture should be made for diagnosis, and where there is an increased intracranial pressure, the puncture should be repeated for therapeutic purposes.

Where the bacteriological and clinical diagnosis of the meningitis has not been firmly established, an intraspinal injection of anti-meningococcic serum should be administered at the time of lumbar puncture, especially if there is any suspicion that an epidemic meningitis may co-exist with the aural lesion.

If the history and examination of the ear or mastoid reveals an acute or chronic suppuration, the mastoid should be thoroughly exenterated, the dura and sinus uncovered, and drainage established. In the majority of cases the path of infection travels by local extension to the sinus and dura, with a resultant sinus-phlebitis and dural infection.

In old aural suppurations a cerebral or cerebellar abscess is a possibility, with a secondary meningitis. The labyrinth may be the pathway for the meningeal involvement.

At times it is difficult to establish a path of infection, either at operation or at necropsy.

The successful cases reported in the literature have established the fact that meningeal drainage will save many, which otherwise would terminate fatally. Especially is this true when the route of intracranial invasion is through the tegmen or inner table of the mastoid. When the disease spreads through the labyrinth, the results are not so good.

It is my opinion that, even in apparently hopeless cases, surgical intervention is justified on the ground that the evacuation of pus from the intradural spaces, together with relief of tension offered by lumbar puncture will occasionally result in the recovery of cases which would otherwise terminate fatally.

Chapman Bldg.

INDIVIDUALITY AND ENVIRONMENT AS ETIOLOGICAL FACTORS IN THE PSYCHONEUROSES*

By CHARLES E. NIXON, M. D., San Francisco

The progress of medical practice has been notably retarded by the failure of some physicians to realize that the primary object of their attention should be the individual and not the particular anatomical or physiological disturbance from which the patient is apparently suffering. How frequently some isolated deviation from the average is seized upon with the greatest enthusiasm and on this finding is predicated the patient's entire difficulty. "High blood pressure," "anemia," "murmur," are terms that too often give complete satisfaction. As new laboratory methods and refinements of physical examination are added to the already lengthy examination routine, the individual is more and more lost sight of in the frantic search for physical or objectively demonstrable abnormality. It is not uncommon to see long records where almost every known procedure in medical practice has been done and not one word written about the patient as an individual—as to his reactions as a whole.

The failure to recognize this broader viewpoint and thereby to be of infinitely greater service to those seeking our help has been due partly to the unfortunate conception conveyed by the terms "organic" and "functional." If, on examination, a condition dignified by the title of "organic" is found the physician regards it as being important and demanding attention; however, if the difficulty is one of the so-called "functional neurosis" group the patient is not infrequently told that there is nothing the matter with him; to "forget it" or, at most, he is told to get out for some exercise and is given some injections of iron. The student is thoroughly impressed with the dictum "never make a diagnosis of a neurosis until you have ruled out all possible organic diseases"; he is taught to regard laboratory findings, especially the more complicated tests, as being of the greatest importance; indeed, so awed is he by these mysterious reactions that the history and physical examination are hastily passed over in the frantic rush for the laboratory reports.

This narrow and altogether erroneous conception will persist until physicians learn that there are three things to be considered in dealing with a patient and, while in this paper I am referring especially to the psychoneuroses, this applies as well

* Presented to the Section on Neuropsychiatry.

to every other field of medicine. The three factors entering into every case are the *individual,* the *environment,* and the *adjustment* of internal relations to one another and to environment.

Man is a highly complex organism in which all structures are more or less closely related. *Individuality* is the result of the particular form, function, and grouping of the various organs and tissues. Personality has been the term commonly used to express the makeup of a person, but because this word is thought of more in reference to the psychic aspect I have suggested the use of the term *individuality* to convey a more comprehensive conception expressing thereby the physical and mental status and the reactions of a given person. People are grouped on the basis of physique as robust, frail, obese, slender, muscular, or asthenic; from the intellectual standpoint, as very superior, superior, normal, or dull. Likewise, groups are made according to the emotional, endocrine, moral or social status or to the possession of unique traits. It is, however, the particular combination of all these phases of a person that gives him his individuality and accordingly no study of a patient is complete without a consideration, separately and as a whole, of all of these factors. It is just as important, perhaps more so, to know that man is temperamental, unsocial, egocentric, timid, inclined to excessive worry, impractical, of mediocre mentality, or has a feeling of inferiority as it is to be cognizant of a blood pressure above the average or of an existing arteriosclerosis.

Among people who are considered as "normal" and who are economically and socially independent we find great variation, and even abnormality, of structure and function. Health does not depend upon the absence of all abnormality, but upon an adequate adjustment of the various structures and functions, and upon the individual's success in maintaining his adjustment to his environment in spite of the pathological condition. Thus, a person may have a heart lesion, but if the heart is able to compensate for this so that internal relations are not disturbed, the individual leads his usual life; likewise a man may be of the "shut-in" type or egocentric or dull and yet be able to compensate for these peculiarities and so lead a normal life. The crux of the situation is not the presence of some abnormality but whether there is an adequate adjustment of internal and external relations. To use the words of Herbert Spencer, life is "the continuous adjustment of internal relations to external relations."

Using again the heart lesion as an illustration, the involvement of the organ may be so severe that it is not able to compensate for the additional load thrown on it, and the patient is unable to carry on his usual activities; in the familiar phraseology of pathological sociology, he is unable to adjust himself to his environment. If further internal adjustments are impossible then the environment must be modified.

The application of this conception of disease and its treatment is especially applicable to the psychoneuroses and is essential to a proper understanding of these conditions. The etiology of the psychoses and neuroses has been attributed to almost everything—infections, intestinal kinks, anemia, enlarged prostates, heredity, poor environment, domestic or business troubles, mother or father fixation, sexual repression, lack of sexual repression, and so on ad infinitum. Unquestionably, any one of the conditions mentioned may be an important etiological factor, but it is not the existence of the condition per se that causes the psychosis or neurosis; the disturbance develops because the *individuality* is such that there is difficulty in making an adjustment to the environment. Stewart Paton has suggested that the term "insanity" be discarded and the term "maladjustment" be used instead, for, as he aptly says, "Disease is an imperfect adjustment of which mental disorders are a special but not specifically different type."

We are all potential psychoneurotics; most of us do not actually become such because our defects of individuality are not so marked, or our environment is so sufficiently simple that we can adjust ourselves to our environment. In some the margin of safety is very great—they are endowed with good bodies and minds, they have a stable personality, their instincts do not bring on too many conflicts—in other words, the individuality is so good that the environment may be very bad without the development of a psychosis or a neurosis; in others, however, there are personality defects, or physical or mental stigmata that make necessary a very suitable environment to prevent the manifestation of such a disturbance.

Three illustrations, in the way of brief case records, will perhaps further elucidate this viewpoint.

A middle-aged man with a large family had been economically independent until the last year; he had recently become depressed, anxious and nervous; he stated that it always seemed he was just barely making a go of things before the present trouble, and in the last year he found his circumstances in life too much for him. The psychiatric examination showed a mental age of ten years, and the physical examination revealed a moderate arteriosclerosis with a comparatively high blood pressure. Because of a rather good personality and a good physique, he had previously been able to adjust himself to his environment in spite of the handicap of intellectual inferiority, but with the additional stress of an arteriosclerotic condition there came a break, with the resultant psychoneurosis. His usual occupation carried with it a fair amount of responsibility, so the most essential part of this man's treatment was to have him engage in work with little responsibility and not too strenuous from a physical standpoint—in other words, to modify his environment.

A highly successful engineer had an important position in a large corporation. While under considerable strain he developed an attack of manic-depressive insanity. On recovery he returned to his former work and had another episode, and on recovery again returned to his position and a third time had a mental upset. After this last attack he gave up mine engineering and took a position as a driver on a milk-wagon. He has been doing this work for several years without a recurrence of his

trouble; another example of a too complex environment being a factor in the development of a psychosis.

The third case is a man, age 35 years, with a wife and two children. He was artistically inclined, but lacked technical training to make a living as an artist. He was impractical and had other personality defects that made him an economic dependent. For years the Charities had contributed largely to the family support, making up the deficiencies in the wife's earnings. While the wife was working he would care for the children, playing much as a child and puttering with his paintings. As a result of the conflicts arising from his failure to support his family or even to make an attempt at any practical work, he developed a severe neurosis, and as the result of his insistence that he had pulmonary tuberculosis together with some indefinite signs he was given numerous physical examinations, each one aggravating his neurosis. To make this brief I have to omit many interesting details, but the ending was the adjustment of internal relations or the modification of his individuality by psychotherapy, giving him some insight into his condition and causing him to recognize that he could not earn a living through his art work, but that it was incumbent upon him to support his family through any work he could find and do, his environment was simplified by the supervision and interest of a very intelligent social service worker; with the exception of one break following a mild attack of influenza he has entirely supported his family for several years through his employment on a humble job. He has been encouraged and helped with his painting, with the hope that later some work may be found where his artistic ability may have further development and outlet.

(Flood Building.)

DISCUSSION

Walter C. Alvarez, 177 Post Street, San Francisco—Some physicians do not use laboratory or Roentgen-ray help because it is not available or because their patients are too poor. Others do not use these tools because they do not know that some of them exist; they do not know how to handle them, or what they are for. On the other hand, there are many pseudo-scientific individuals who, especially when a consultation is pending, like to order blood cultures and counts, blood chemical work, metabolism determinations, Wassermanns, stool examinations, and Roentgen-ray plates of everything in the body. Sometimes, for lack of any directing mind, the particular procedure which would easily make the diagnosis is the only one which is omitted. Thus, an acquaintance of mine with leukemia came to me with a hundred dollars' worth of Roentgen-ray and laboratory reports. His diagnosis had been missed by a number of physicians because, through some oversight, a blood-smear had not been looked at.

The writer never likes to order any laboratory or Roentgen-ray examinations until a careful history has been taken and perhaps the physical examination made. The diagnosis may then be clear and the patient may be saved further expense. If doubts remain, the laboratory procedures should be designed to clear those doubts. Then the essential thing is to follow clues as they appear. To illustrate: A typical neurasthenic whose only complaint was lack of "pep" gave no clues from history-taking or from the physical examination. The urine, however, showed some white and red cells. Where did these come from? Massage of the prostate showed pus, but no red cells, so plates of the kidneys were taken and they showed two large "silent" stones.

The true physician must be a splendid student and a rapid reader to absorb much of many sciences; he must have wonderfully good judgment to sift the evidence, to pick out the essentials and to decide what is best to do with the individual; he must have great human sympathy, kindliness and friendliness or he will never bother himself about environmental problems; and finally, he must be a physical giant or he will be too tired most of the time to attempt anything but a snapshot diagnosis and a palliative treatment. Nixon's appeal is a good one, but it has always seemed to me that such exhortations must go unheeded so long as we physicians partake so largely of the mental, moral, and physical weaknesses of humanity. To be sure, as Stevenson says, we share "as little as any in the defects of the period," but some of us haven't Class A intelligences (only four out of a hundred men in the American white draft had); some of us are lazy, and almost all of us find it burdensome and annoying to think. So long as we are made that way we will continue trying to delegate the making of the diagnosis to the laboratory man and the roentgenologist.

Henry S. Whisman, University of California Hospital, San Francisco, Cal. — Modern medicine has been dominated by the materialistic dogma. According to this formula there must be a correlation of the symptom-sign complex with an organic, mechanically demonstrable deviation from the norm. This has meant the intensive study of the function of the part to the exclusion of the function of the whole, with an utter disregard of the principle of integration. Hughlings Jackson long ago spoke of the physico-chemical, the sensori-motor, and the psychic or symbolic levels, each transcending the other through integration, with a final expression in the behavior of the human being as we know him. The clinical picture of disease must then be a reaction, not of a single part or organ, but of the organism as a whole. Every individual has his own peculiar type of reaction, conditioned by inherited, constitutional factors on the one hand and his life experiences on the other. The result of a defect of adjustment is always a symptom constellation which is determined by the extent and character of the defect and the reaction-type of the individual. The defect may be at the physiological level, and thus a part-disorder, so-called organic disease, or it may be at the social psychological level, a maladjustment of the person to his environment. The clinical picture may be, and often is, the same. A defect of adjustment in the social or psychological sphere is naturally and automatically, and usually unconsciously, expressed by discomforts and inadequacies in the physiological realm. The keynote to a correct estimation of the situation is, therefore, not only a careful survey of the status of the various organs, but imperatively also a study of the personality with its reaction tendencies.

When the defect has been found to lie in an organ, demonstrable by some instrument of precision, physicians have always been ready to attempt a readjustment by pharmacological or mechanical measures. They have been less ready, and often unwilling, to look upon the symptomatology as a possible expression of a defect of adjustment of the individual as a social unit. The physician must broaden his viewpoint and extend the scope of his investigations and therapeutic efforts in order to meet the problems of psychobiological medicine. A sizing up of the situation demands no complicated technique. A few common-sense questions designed to bring out the nature of habitual reactions to the ordinary, concrete situations of life, incorporated in a paragraph in the anamnesis, would in most cases supply the data. Even the casual observer of the signs of the times may readily see that these are real problems and since they come so largely within

the sphere of activity of the physician, it is only right that he, rather than the charlatan, should make the effort to meet them.

Clifford W. Mack, Livermore Sanitarium, Livermore, Cal.—The writer of the article on the psychoneuroses is dealing with a phase of medical practice that should be of the utmost concern to the medical profession today because ignorance or neglect of the subject will result in many failures that will be to our discredit. In these times of charlatanism, cults and near-doctors of all sorts, many of these psychoneuroses under the guise of other diagnoses will be manipulated, classed as cured, leaving others then with real organic diseases to expect the same help that will not be forthcoming and delay the early assistance that medicine could render. The number of patients with psychoneuroses and the number of patients with organic diseases combined with psychoneurotic symptoms must be a large percentage of those entering a doctor's office. Hence, if our work is to be successful we must grapple with this problem more intelligently.

In the first place, I wish to state my complete agreement with the conclusions of the author that a study must be made of the individual personality, the emotional reactions and the factors in the patient's environment as well as a study of the physical status of the patient. I am glad of the courageous manner in which he asks the diagnostician not to tell the psychoneurotic patient that "there is nothing the matter with you." The statement in one case coming to my knowledge led to a pathological depression with an evolution as follows: The patient reasoned: "I have certain feelings and symptoms which incapacitate me and make my life miserable. The best doctor in town, after searching tests with elaborate apparatus of the most modern type, finds no disease. Hence, my sickness is unique and beyond the pale of present-day methods of medical science. Hence, I am indeed hopeless and beyond the power of human aid." This state of depression is often the result of the habit of thought of the physician leading him to deal only in physical manifestations, concluding that no further investigations can be made after a thorough physical examination.

It would be a sad mistake to belittle the physical survey and the wonderful assistance that refinements in diagnosis has brought to us, as it is the rock upon which medicine rests. The essayist very aptly points out the lack of logic in concluding that a certain train of symptoms is always due to deviation from the normal found in the body. The neurasthenic patient has a group of subjective symptoms and at the same time may have certain pathological changes in the body without there being any real connection. The skill in diagnosis that we must display is not the finding of things, but in placing the proper significance on them in the individual case. In a searching survey of a hundred persons, for example, probably not more than a small fraction would be without some demonstrable abnormality. There might be slight anemia, change in the character of the blood-cells, disturbances of the gastrointestinal tract such as constipation or enteroptosis, pelvic disorders in malpositions of the uterus, without any of them having any direct bearing upon the group of subjective symptoms which brings the patient to us. We consider ourselves lucky if we find some definite pathology in the body which is impairing the health of the person to such an extent that nervous fatigue is likely to ensue because such a finding can be attacked directly.

We discredit ourselves, however, if we follow the path of least resistance and fix upon any abnormality that may be present for the indication of our treatment, instituting thereby some formidable procedure like a surgical operation, the extraction of teeth, etc., or refined therapeutical measures which, after completion, leave us with as miserable a patient as we had before, and, in some cases, with the symptoms very much accentuated. As it appears to me, we must think of the receptivity of the sensorium in every human being in our estimation of subjective symptoms. The receptivity may be increased or diminished by certain physical states, and certainly by the inherent temperament, the personality, and in short, the thing which is called by the writer the "individuality." Also, this receptivity may be influenced materially from time to time by environmental factors which make it necessary that studies be made of them in each individual patient. In other words, a disease such as a psychoneurosis may consist of ordinary somatic impressions of everyday life activity, such as fatigue, sensations from the digestive tract, etc., thrusting themselves upon the mind of the person with such vividness that attention is given to them by consciousness, whereas ordinarily they would be ignored.

It is undoubtedly true that even in real organic diseases we have a psychogenic phase which must be considered, as no two human minds react in the same way to the same amount of somatic pathology. In other words, the lesion in an organ in some individuals does not create a train of symptoms that in another type of mentality would be registering in consciousness frequently. In the consideration of the psychoneuroses we must also consider psychogenic symptoms interlaced with those produced by the histopathology.

THE ADULT EQUIVALENT OF THE FROELICH SYNDROME

By GEORGE KNAPP ABBOTT, M. D.

Adiposity with scanty menstruation or amenorrhoea are common in gynecologic practice. Many such patients show no other evidence of illness, and in the absence of gross pathology of the female organs little has been accomplished in their alleviation. Certain patients with scanty or absent menstruation with nervousness may be benefited by the use of extract of whole ovary or corpus luteum. Others with a distinct thyroid factor may obtain relief from thyroid feeding with or without ovarian extracts. Endocrine dysfunctions affecting menstruation are various and varied. If each such disorder could be reduced to a definite syndrome with specific endocrine therapy, these problems would be easy of solution by careful history-taking and thorough examinations. In the present state of our knowledge such is not now entirely possible. However, any contribution may be welcomed which tends to separate from the mass of such disorders a few cases of apparently common origin with common symptoms and definite results of endocrine therapy. Such is the endeavor of this study. Five patients with an apparently common etiologic factor and similar symptomatology have been selected.

These cases appear to the writer to be a nearly complete adult counterpart of the juvenile disorder known as the Froelich syndrome. The outstanding features are adiposity, scanty menstruation or amenorrhoea, with headache and lassitude. With but little exception, this symptom group is present with all the five patients. The onset in all cases followed closely upon an attack of influenza or measles. In the course of a few months all showed a rapid and remarkable gain in weight ending in a definite adiposity. Lassitude is marked in all, amounting in some of the patients to almost total inability to maintain physical effort for even an hour or two. Exhaustion occurs after both ner-

vous and muscular effort. Headache is present in four, and severe in three. This is constant or nearly so, worse at menstrual dates, and often so severe as to be designated unendurable. It may be bitemporal, frontal, or occipital, and sometimes is located at the top of the head. The onset in one patient was during puberty, and so this one shows a little of the juvenile type, though not markedly so. Three of the five patients showed practically identical symptomatology, and these three obtain definite relief under pituitary feeding.

EXAMINATION

In addition to the usual procedures of a detailed history and physical examination in all cases, special attention was paid to symptoms and findings reputed to be of endocrine origin. Sugar tolerance was high in all, basal metabolism within normal limits, and X-ray of the sella turcica indicated no alteration in size or contour. Special inquiry was made into the matter of focal infections because these are notably common sequels of such acute infections as influenza. Though benefit followed the removal of such foci, yet the main symptoms were but slightly affected.

The symptom group, characteristic of this type of hypopituitarism, is sufficiently well illustrated by a synopsis of case record of patient No. 5, so that we may avoid the tedium of reciting all in detail.

A TYPICAL CASE

Case No. 5 (9817 St. Helena Sanitarium and Hospital, April 15, 1921). A widow, age 23. Has one child age 2. The presenting symptoms are amenorrhoea, adiposity, and nearly constant headaches, with periodic exacerbations at menstrual dates. The family history is negative. The past history shows attacks of measles, scarlet fever and mumps, with frequent tonsillitis. Tonsillectomy was done in 1914, and appendectomy in 1917. An attack of influenza occurred in 1919. The menses have been regular, except the past one and one-half years she has had but five or six periods. The present illness began six months after influenza, when she missed the next five consecutive periods and has missed many since then; others have been scanty. The gain in weight began at the same time, twenty pounds in the first three months, then fifteen in the next year. Much of the adiposity is about the hips. Headaches began four months ago and are frontal and at vertex, and much worse at menstrual dates. They have continued more than half the time for the last three weeks. She is free in the morning; they begin at noon and cease only with sleep.

Examination showed large remnants of both tonsils. Other items were largely negative or normal, except as to adiposity. A diagnosis of hypopituitarism was made and the patient given a dry extract of whole pituitary, 1 grain reinforced with anterior pituitary 1 grain, and whole ovary 2 grains, each three times a day. April 21, 1921, a secondary complete tonsillectomy was done. As shown by the subsequent course, the headaches, which were relieved by the pituitary feeding, returned if it was omitted for two to four weeks consecutively.

May 7, 1923, the patient writes that the first three months of a recent pregnancy (second marriage) she was forced to take pituitary extract for two or three days at a time, and then could go about two weeks before another headache. No headaches occurred the last six months of pregnancy, and no pituitary extract was taken during this time, and none for six or seven months following confinement. At this time the headaches began again and she was advised to use ovarian extract, but with indifferent results. She returned to the use of pituitary extract, which she takes for a few days, and can then go two weeks without headaches, which are otherwise worse at her periods.

The other patients showed a very marked lassitude with the occurrence of the headaches. In two they were constant or nearly so, with no diurnal variation in severity. One patient gained forty pounds in five months, with a total gain of sixty pounds since the onset, which began six months after an attack of influenza. This patient was nearly free from headache, but would easily sleep fifteen hours out of the twenty-four, and was irritable and melancholy. In another patient the amenorrhoea and gain in weight were such as to simulate pregnancy. Experience showed little or no benefit to be derived from ovarian extracts in any of these patients. This was in sharp contrast with the results of corpus luteum therapy in that type of periodic headache previously described by the writer. In one patient the headache and lassitude were so severe that 2 grains of pituitary extract had to be taken four times a day to give relief. Little, if any, change in any of the five patients was observed in either the obesity or amenorrhoea, even when corpus luteum or whole ovary were added.

CONCLUSIONS

1. There is a type of hypopituitarism in adults of subacute onset which in many respects resembles the juvenile Froelich syndrome.

2. It appears to be caused by such acute infections as influenza and measles.

3. Its symptom complex is the rapid production of adiposity with scanty menstruation or amenorrhoea, headaches, and marked lassitude.

4. The headaches and lassitude are relieved by feeding whole pituitary, which must be repeated at intervals. These symptoms are uninfluenced by ovarian extracts.

5. The adiposity and amenorrhoea are but slightly, if at all, influenced by the pituitary feeding. The same lack of effect follows the use of ovarian extracts.

Abstract from Report of Industrial Accident Commission—According to the Industrial Accident Commission, out of approximately one million workmen employed during 1921 there occurred 62,273 injuries causing disability lasting longer than one day and 550 industrial deaths, representing 6,829,294 total days of work lost. It also meant the payment of compensation in the sum of $3,924,582. In 1922 the reported injuries mounted to 83,246 and the deaths to 700. The figures for 1923 are not yet available, but undoubtedly will show a proportionate increase.

ADENOMATA OF THE THYROID GLAND *

By EDWIN H. SCHNEIDER, M. D., Los Angeles

There are three kinds of goiter, adolescent or colloid goiter, adenoma and exophthalmic goiter.

My reason for choosing adenomata of the thyroid gland as the subject of my paper is because this is the most prevalent form of goiter seen by the physician, because its etiology is probably least understood and because every physician does not always recognize the general pathology of this type of goiter. True adenomata of the thyroid gland are benign tumors recognized as palpable, spheroidal, circumscribed masses, occurring either single or multiple. The average age at which they make their appearance is at the twenty-third year. From the adolescent or colloid and exophthalmic goiters it is readily recognized by the fact that the enlargement is always asymmetrical and nodular. Histologically, adenomata are readily divided into two classes, encapsulated fetal adenoma and encapsulated adult adenoma. This division is made according to whether the tissue takes the structure of the fetal thyroid or the adult thyroid. Adenomata of the adult form are by far the more frequent. A non-degenerated adenoma upon section shows a homogenous structure and may take on all the changes which have been noted in the thyroid tissue outside the encapsulated tumor. Granular, hyaline, fibrous, cystic, hemorrhagic, calcareous and necrotic degeneration occur within these tumors early and frequently. Malignancy is present in about 1.6 per cent.

Virchow and Wolfler were unable to decide what enlargements were to be considered as tumors and what are merely diffuse overgrowths of physiologically adult tissue. Billroth, Virchow, and Wolfler believe that adenomata arise from embryonic cell rests, i. e., the Cohnheim theory. David Marine, in regard to the etiology of adenomata says: "Cohnheim's conception offers the best explanation of the origin of these tumors when one enlarges it to include the different physiological ages of the development of the main thyroid mass, and that the stimulus for tumor growth is the same as for that of the thyroid as a whole." L. P. Wilson says: "While it may be true that adulte adenomata do develop from fetal rests, there is insufficient evidence to demonstrate this beyond peradventure." Adenomata, according to Marine, occur only in thyroids which show a general hypertrophy or hyperplasia.

What is the stimulus which produces an overgrowth of the thyroid gland as a whole and directly or indirectly produces adenomata? A few decades ago great stress was laid upon the influence of altitude and inorganic matter, particularly calcium in the water supply, in the production of goiter. More recent experiments and more careful observations tend to show that adenomatous goiter can be produced by many different agents, inorganic and organic, acting as poisons. Marine, in a recent publication, speaking of adolescent goiter, says: "We at present must fall back on the view that thyroid hyperplasia is a compensatory reaction arising in the course of a metabolic disturbance and immediately depending on a relative or an absolute deficiency of iodine." A most common factor which increases the need of iodine is an infection. Organic matter is increasingly asserting itself as an important cause, and it is this agent that I wish principally to discuss as one of the etiological factors in adenomata of the thyroid gland. Wilms, in 1910, showed that the residuum of filtered water derived from goitrous districts when added to the usual and harmless water and administered to dogs, guinea pigs, and monkeys produced goiter in these animals. In India during the rainy season, when organic matter is rapidly disseminated, the number of goiters among the whites and natives is greatly increased.

Switzerland, which stands first in its proportion of goiterous individuals, uses human feces in their natural state as fertilizer. Kocher has repeatedly urged the importance of this causal agent in the production of goiter. Suzuki produced enlargement of the thyroid gland in rats by feeding them with cooked rice mixed with rat feces, and also by injecting the latter subcutaneously. McCarrison observed a similar result in animals allowed to drink only water polluted with feces. Marine produced goiter in brook trout placed in polluted water. A great many more experiments could be quoted to prove the relation of organic matter to goiter, but, while the ingestion of organic matter may bring into activity a large number of pathogenic agents, Jaboulay, Klebs, Kocher, Lustig, McCarrison, Riviere, Waters and others have laid stress on some pathogenic organism or its toxin as an exciting cause of goiter. Hirsch's conclusion, as regards the etiology of endemic goiter in his "Handbook of Geographical Historical Pathology," says: "The absence of results to all these inquiries about the genesis of goiter and cretinism—inquiries which have extended to every influence perceptible to the senses that could be brought into the consideration of the question before us—warrants the conclusion that in these diseases we have to do with a specific agent, a veritable morbid poison, and that endemic goiter and cretinism have to be reckoned among the infectious diseases."

Adami thinks that if micro-organisms cause the malady they do so indirectly by forming injurious products in the water; thus goiter would be the result of an intoxication instead of an infection.

Edward C. Rosenow found a streptococcus in goiter removed at operation. Cultivating the streptococcus and injecting it into the mediam vein in the ear of rabbits, he has produced hemorrhages and lesions in the thyroid gland of these animals. He says: "Strains of streptococci from rheumatic fever, myositis and cholecystitis produce hemorrhages in the thyroid gland commonly, while those from other sources rarely do so." Bloodgood says: "The histological picture of chronic thyroiditis is usually found in the compressed thyroid tissue in the capsule and outside the capsule of the adenoma. As the histological structure of non-degenerated adenomata resembles in structure the surrounding

* Presented to the Section on Surgery at the Fifty-second Annual Session of the California Medical Association, San Francisco, June, 1923.

extra capsular tissue, we must determine why certain portions of the hypertrophic or hyperplastic tissue become encapsulated and undergo early degeneration. We know that adenomata occur in thyroid glands which show a general hypertrophy and that the stimulus for tumor growth is probably the same as that for the thyroid as a whole.

From a consideration of the above experimental facts, it would seem that one or more bacterium or its toxin is the causative factor in most cases of goiter. In 1887, Gregory stated that nature has three ways in protecting the organism against noxious agents: First by ingestion; second by encapsulation; and third by extrusion. That the second method of protection, that of encapsulation of a focus of pyogenic organisms or their toxins, may be the cause of the formation of adenomata seems very reasonable and is further strengthened by the fact that hemorrhagic, fibrous, cystic and calcareous degeneration occur so readily within these tumors. An infection elsewhere in the body may directly or indirectly, by producing a deficiency of iodine, stimulate the thyroid gland as a whole and produce an adolescent, colloid or exopthalmic goiter. Adenoma is a local, circumscribed, a walled-off tumor, a disease of part of the thyroid gland. We could, therefore, expect to find the causative factor locally—that is, within the tumor itself. That pathogenic bacteria are not more frequently isolated from these tumors is not surprising when we remember the usual chronicity of this condition, the generous blood supply of the thyroid gland and the natural antitoxic properties of the thyroid secretion.

In the examination of over 3000 patients with adenomata, I find that over 80 per cent give definite histories of a previous acute infection. It is not unusual to hear a patient say, "I noticed a small lump in my throat a few weeks after a severe sore throat." Examination of these patients often reveals chronic appendicitis, chronic tonsillitis, blind root abscesses, pyorrhea, sinusitis, chronic otitis media, chronic arthritis, chronic bronchitis, chronic constipation, chronic cholecystitis, and pulmonary tuberculosis. The symptoms produced by adenomata depend upon the size and location of the tumor or tumors and the degree of hyperthyroidism. A small adenoma lying against the trachea may produce great dyspnea. This occurs rather frequently in single adenoma arising from one of the lower poles of the thyroid gland. Again, the tumor mass may be the size of one's fist and yet produce little or no discomfort. Pressure symptoms are far more likely to occur in adenomatous goiter than in the other forms because of their tendency, in addition to their general growth, to project nodules which directly or indirectly produce compression of some neighboring structure as the trachea, oesophagus, blood vessels, and nerves.

According to Matthews, paralysis or paresis of one vocal chord is present in 17 per cent of goiters coming for operation. About 25 per cent of adenomata sooner or later, on an average after fourteen years, develop symptoms of hyperthyroidism. In the early stages of hyperthyroidism the symptoms are like those seen in any toxemia; that is, malaise, lack of endurance, loss of strength, nervous instability, loss of weight, free perspiration, rapid pulse, and a tendency to hypertension. In more advance cases the heart becomes the chief organ affected. Thirty per cent of adenomatous goiter have an enlargement of the heart over one-half inch. The ultimate damage to the heart, liver, kidneys, and nervous system may be just as great as that occurring in acute hyperthyroidism, due to exophthalmic goiter. Why it takes an adenoma about fourteen years to produce symptoms of hyperthyroidism we do not know, but these are the facts, and only by heeding them can we avoid the deleterious effects of this insidious and dangerous disease. Symptoms of myxedema may supervene when the surrounding thyroid tissue has been destroyed by pressure atrophy or by the useless use of the X-ray for treatment.

TREATMENT

A spontaneous disappearance of an adenoma rarely, if ever, occurs. They are, as a rule, but slightly responsive to medical treatment. I believe one is justified in treating medically for a few months a small adenoma of recent origin, but it is absurd and even harmful to treat medically an adenoma of long standing, with pressure symptoms, or with symptoms of hyperthyroidism. Kocher has shown that goiter patients having prolonged iodin treatment show hyperthyroidism earlier than cases not treated at all. Enucleation is the method of choice, since these tumors can now be removed so safely that death from operation is merely accidental. Of course, cases with marked myocarditis have the same risk as any other major operation would have in the presence of this condition. If our infectious or toxic theory as to the origin of adenomata is correct, and most modern evidence points that way, treatment should consist in the removal of all foci of infection both primary and secondary. I believe the mere enucleation of adenomata is not sufficient to produce a cure, and before or after operation a careful search must be made for the etiological agent and it also removed.

Charles C. Chapman Building.

DISCUSSION

Frank H. Paterson (Twohy Building, San Jose)—The presentation of this paper is timely, for the reason that, despite recent advances in our diagnostic methods, goiters of the adenomatous type remain all too frequently unrecognized until severe grades of pathologic physiology have developed. Because these adenomatous or so-called "toxic goiters" represent such varying stages and degrees of partial hyperthyroidism, their diagnosis requires the greatest skill and judgment. The hyperthyroidism of adenoma does not develop until fifteen to twenty years after its appearance and usually persists for a period of several years before the surgeon is consulted. It is in these cases that heart and kidney damage are frequently as extensive as in the exophthalmic types of goiter, and the surgeon is, therefore, more concerned with the ability of the heart and kidneys to functionate than with the contingency of post-operative hyperthyroidism. It is important to differentiate between Graves' syndrome and toxic adenoma of the thyroid—in the former X-ray therapy appears to exert a beneficial influence, at least recourse thereto seems justifiable prior to operation, while in the strictly adenomatous forms, where the cause lies within the thyroid, surgical removal can be depended on to effect a cure.

In adenoma after the thyroid rests become active, the average metabolic rate is plus 35 per cent, whereas in exophthalmic goiter the average runs over plus 50 per cent. While it is conceded that the greatest service we can render, in this, as well as most other ills, is along such lines of prevention as have been made possible through the researches of Marine and others, the surgeon will be, for some time to come, confronted with the problems presented in the advanced conditions until both the profession and the laity are more generally acquainted with the advantages of prophylaxis.

Albert H. Rowe (119 Thirteenth Street, Oakland, Cal.)—Why adenomata of the thyroid which contain fairly normal acinar tissue and which produce thyroxin apparently normal in activity arise in the thyroid is a problem. The iodine deficiency theory of the origin of colloid and adenomatous goiters, to my mind, is sufficient to explain the origin of goiters without taking into account the infection hypothesis which Schneider favors. However, much evidence, as outlined in his article, necessitates the consideration of the latter possibility. Toxic adenomas of the thyroid are insidious in onset, and usually are overlooked except by the specialist who is actively engaged in thyroid diagnosis. Even large adenomas may be held down within the thyroid parenchyma, making them difficult to see and even to palpate. Even minute adenomas may produce hyperthyroidism, and it has been my experience that any thyroid which is definitely palpable and which is firm and slightly irregular and lacking at all in symmetry may contain adenomata. Patients with such thyroids, who have a pulse rate above 85, and a history of even slight increase in nervousness or loss of weight and an increase in subjective body heat, should routinely have a careful metabolic rate determination. In these cases where the average rate is not apt to be over 20 or 30 per cent, the technic of the metabolic rate test should be carefully performed and the result checked up by a clinician who is constantly in touch with pathological thyroid material. We frequently see patients who have received incorrect thyroid diagnosis based purely on metabolic rate determinations which have not been skillfully performed. All toxic adenomata require surgical treatment, and the results obtained are often magical. When the adenomata are encapsulated, enucleation is sufficient. However, a different adenomatosis of the entire thyroid gland is not uncommon, which condition requires the subtotal thyroidectomy which is now done by all surgeons for hyperplastic goiter. Postoperatively, the clinical condition of the patient should be followed with the help of metabolic rate determinations, in order to ascertain that the hyperthyroidism has been properly controlled or that a hypothyroid state does not occur as a result of the surgery. In my opinion it is wise to enucleate adenomata, which are not toxic, since they can be easily removed with local anesthesia, and this before any toxic damage to vital organs has occurred.

H. H. Searls (University of California Medical School, San Francisco)—The classification suggested by Schneider is the one commonly used today, except that a distinction is usually made between the adolescent, or simple hypertrophy, and the colloid goiter. Pathologically, simple hypertrophy gives us a microscopic picture within normal limits, while the colloid shows markedly distended alveoli packed with heavily staining colloid and lined by flattened epithelium. The well-developed colloid goiter shows such a different picture under the microscope from that of the typical adolescent, that a separation of these two types in the classification is warranted.

There does not appear to be sufficient evidence to credit the development of adenomata to an infectious factor when it has the pathological characteristics of a true benign encapsulated tumor of thyroid tissue. Should this hypothesis be accepted, then a similar etiology would have to be considered in similar tumors of other tissues of the body. Schneider states that examination of 3000 patients with adenomata showed 80 per cent with history of a previous acute infection. Could not a similar history be obtained in 3000 cases of fibroid of the uterus, for instance, or breast tumors either benign or malignant?

The harmful results of the X-ray treatment of adenoma of the thyroid cannot be too strongly emphasized. There is very positive evidence that it does not have any action on adenomas, and merely injures the surrounding thyroid tissue. Frequently, particularly in the larger adenomatous goiters, the surrounding glandular tissue has been severely injured by the pressure of the contained adenomas, and in such instances the added insult of X-ray therapy results in the development of myxodema.

THE EFFECTS OF POSTURE ON RELAXATION UNDER ANESTHESIA

By CAROLINE B. PALMER, M. D., San Francisco

The importance of posture under anesthesia is commonly acknowledged as having a bearing upon respiration, circulation, strain on muscles and joints, and pressure on nerves. Less commonly the effect upon relaxation and the required depth of anesthesia for surgical operations is considered, but in every-day practice the subject is disregarded to an astonishing degree.

Surgeons ordinarily, when making an examination for a suspected pathological condition of the abdomen, for example, place the patient in a posture which gives the greatest possible degree of abdominal relaxation, but the actual operation is frequently performed upon a patient in such a posture that the abdominal muscles are on a considerable tension. This naturally necessitates a much more profound degree of anesthesia, and is sometimes the determining factor in the use of a toxic anesthetic such as ether, instead of a non-toxic anesthetic such as nitrous oxid and oxygen.

(1) The ordinary dorsal position on a perfectly flat surface, often with a very thin inadequate pad between the patient and the table, is one of considerable strain. This is greatly increased in the case of muscular or fleshy patients. (2) Simply using a pillow of the proper size to bring the head in line with the body adds greatly to the patient's comfort by relaxing the neck muscles. It is not sufficient to use the same size pillow for all patients, for naturally one that would be satisfactory for a slender patient, such as the one shown in the slide, would be entirely inadequate for a larger patient. This seems almost absurdly simple, but I venture to say that not all hospitals provide pillows of various sizes for their operating-tables. (3) Flexing the thighs to a greater or less extent adds greatly to the patient's comfort, and by easing the tension on the abdomen increases relaxation. Frequently when this is done, patients say, "Oh, that's better." The use of a small firm pillow under the back decreases the probability of postoperative backache, but here again, it is necessary to have pillows of various sizes. Too large a pillow increases tension. It is a safe rule that, unless the back pillow is comfortable while the patient is awake, it is not of the correct size or is not properly placed.

(4) To further increase abdominal relaxation,

it is sometimes of advantage to elevate the thorax to some extent. In the picture I purposely accomplished this by means of pillows as suggesting that an especially constructed table is not required.

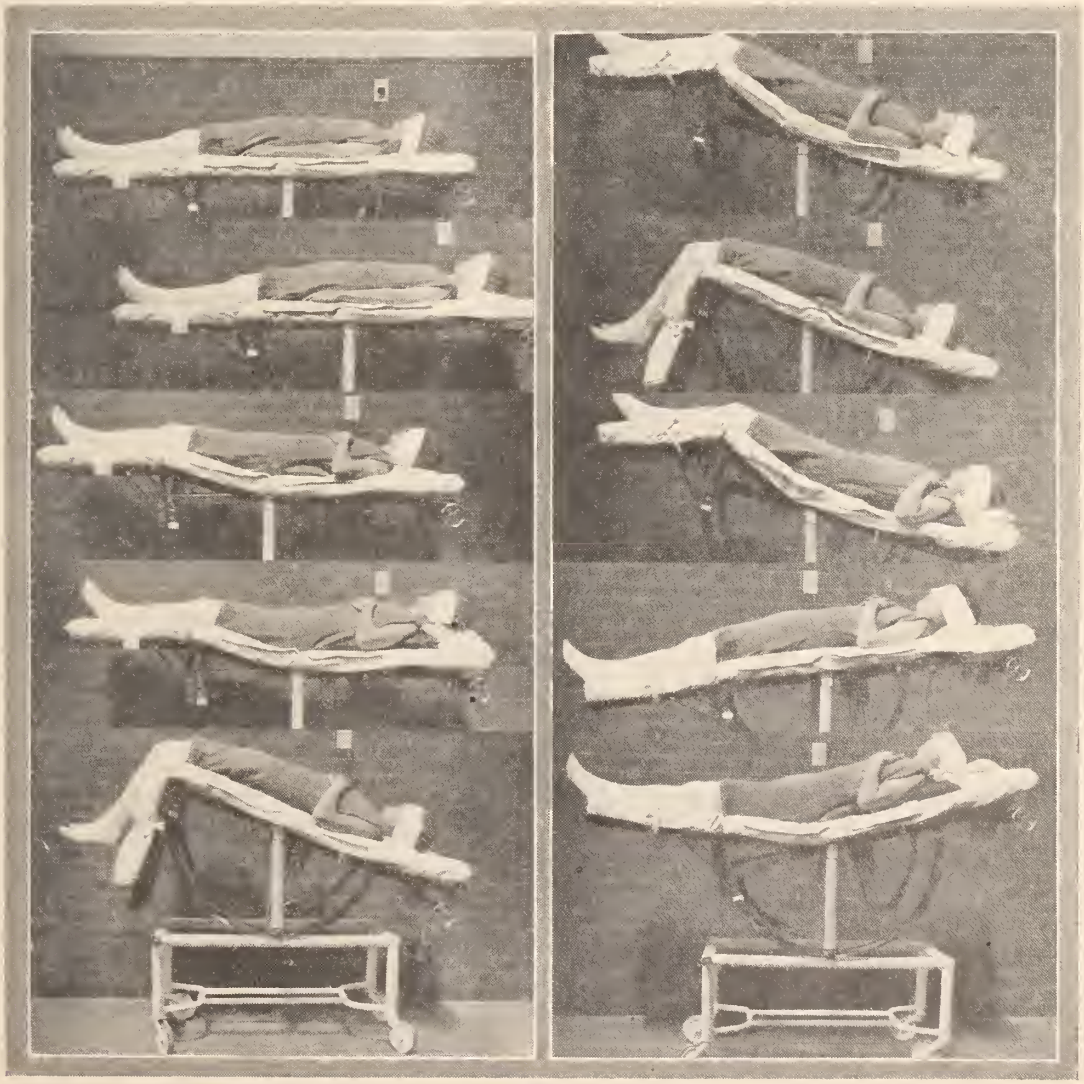
(5) The ordinary Trendelenburg position is one of considerable strain, and certainly in this posture the abdominal muscles are on a definite tension. When we were taking the picture for this slide, the model remarked that the posture was decidedly uncomfortable, but as soon as we flexed the thighs and supported the legs (6), she volunteered the information that the posture was comfortable. The simple experiment of raising and lowering the legs shows definitely the relaxation of abdominal muscles with the legs raised and supported as in this illustration, and the tension of the same muscles when the legs are lowered (7). The use of the back pillow in this pernicious type of Trendelenburg position may decrease post-operative backache, but certainly does not add to abdominal relaxation.

(8) Raising the thorax in what I venture to call the correct Trendelenburg position sometimes assists in abdominal relaxation just as it does in what I venture to call the correct dorsal position (4 again). (9) The reversed Trendelenburg position causes a degree of strain which actually interferes to some extent with respiration.

(10) By flexing the thighs, raising and supporting the legs, and slightly raising the thorax in addition to the inclination of the table, the entire anesthetic condition is changed for the better, and there is a definite increase in relaxation.

I sent this series of pictures to D. A. Sargent of The Sargent School for Physical Education, Cambridge, Mass., and asked his opinion as to the effect of the changes of posture here shown. I quote a portion of his reply: "What you accomplish by the suggested change of position seems to be the relaxation of the flexors of the femur and those of the trunk and the neck, which of course relieves more or less the tension on the abdominal wall."

At Stanford University Hospital, as a result of observation in a series of more than 10,000 cases, we have come to believe that due attention to posture during induction and maintenance of anesthesia pays large dividends in ease and rapidity of induction of anesthesia; greater relaxation; less profound degree of anesthesia required; better condition of patients after operation; and greatly decreased post-operative discomfort.



EDITORIALS

1924 STATE MEETING

All members who desire to read papers at the State meeting should communicate immediately with the secretaries of their sections. Each section holds but three meetings and, in consequence, has time for a very limited number of papers.

A few secretaries have already sent in their programs. Will all members who have papers to submit send the title and abstract of their papers to their section secretaries at once, and the completed manuscript not later than February 15? After that date, papers are no longer acceptable for the 1924 meeting.

PAINLESS INTRAMUSCULAR INJECTION OF NEOARSPHENAMINE

The chief objection to the use of neoarsphenamine by intramuscular injection has been the local inflammatory reaction resulting in considerable pain. If neoarsphenamine, and similar products, could be administered intramuscularly without the local reactions, it would be a distinct step forward in the therapy of syphilis. It would practically abolish the dangers attendant upon intravenous injections, and permit easy and safe administration in children in whom intravenous injections are sometimes technically difficult, if not impossible.

The problem of rendering intramuscular injections of neoarsphenamine painless and without local inflammatory reaction has been recently studied by Freud of the Pharmacological Institute in Vienna, with distinctly promising results. In dogs, Freud found that the intramuscular injection of 0.15 gm. of neoarsphenamine in 5 per cent alypin nitrate containing 5 to 10 per cent acacia produced only a slight rubefaction at the site of injection, while the same dosage of neoarsphenamine injected alone caused marked infiltration of the tissues and rubefaction. Out of ninety-one adult patients injected intramuscularly with 0.15 to 0.45 gm. neoarsphenamine in 7.5 per cent acacia containing 5 per cent alypin, only six, or 16 per cent, showed rubefaction, while 30 per cent of patients injected with 0.05 to 0.15 gm. neoarsphenamine without acacia and alypin showed local reactions. So far as the colloid (acacia) was concerned, the best results were obtained with 7.5 per cent acacia. Good absorption of neoarsphenamine was preserved and pain was reduced. Ten per cent acacia retarded the absorption too much. The role of the alypin in Freud's mixture is simple and quite evident, but that of the acacia is more complex. According to Freud, the acacia serves two objects: firstly, it supports the action of the local anesthetic, and, secondly, it protects the neoarsphenamine against the decomposing and precipitating influences of the added local anesthetic (alypin). Thus, it seems that Freud's mixture is not a case of empirical polypharmacy, for it rests on the application of scientific principles derived from the physical chemistry and pharmacology in the improvement of therapy. From the practical standpoint, and most important of all, is the claim that the clinical results from the intramuscular administration of neoarsphenamine in the acacia-alypin mixture are at least as good as from intravenous administration, and free from the dangers of the latter.

Freud, P.: Arch. f. exp. Path. Pharm. 1923, 97:54. "Über Verhinderung der entzündlichen Reaktion nach intramuskulärer Neosalvarsan-Einspritzung."

WHY NOT SOLVE SOME REAL PROBLEMS?

The most important known essentials to prevention of disease and the prolongation of life are neither numerous nor hard to understand. Most of our modern literature deals with matters that would be of more or less minor importance if we would only correct a few of our fundamental failings, for the most part quite generally ignored.

The interesting article by Anna Rude on the Midwife Problem (Journal A. M. A., November 12, 1923) calls attention to one of the murderous customs of the dark ages that is still prevalent. If it is true—as it undoubtedly is—that obstetrics, including prenatal care, delivery of the child, and after-care of both mother and child, constitutes the practice of medicine, why should there be a midwife problem? Why should there be midwives or any other classes of inadequately educated or, more often, ignorant people carrying on this exacting specialty of medicine—with or without the sanction of the law?

Rude tells us what we suspect is only part of the story, that there are over 40,000 midwives or what not practicing obstetrics in the United States. In other words, there are one-third as many incompetents practicing in a difficult field of medicine as there are physicians.

The end-results of this situation can only be guessed at, but certainly they are not creditable.

CALIFORNIA'S SITUATION

According to Rude, there are 104 midwives authorized to practice in the state who attend 8 per cent of maternity cases. Although the author does not estimate that any unauthorized persons are practicing, it is a matter of common knowledge that there are many of this class, and that when necessary certain persons will sign the birth certificates for them, just as certain persons authorized to practice do sign death certificates for patients whom they never saw and who were attended by unlicensed practitioners.

There is no excuse for inadequately educated persons practicing obstetrics or any other branch of medicine in California, because we have one physician to each 500 of population, and they are so well distributed that, in practically all instances, good services may always be obtained. This is particularly true for a condition that requires service at a rather definite date well known in advance by the patient and the doctor.

What is needed in California, and to a much greater extent in some other states, is for some powerful organization to attack and solve this and other major health problems instead of trying to surround them with alleged safeguards.

SELLING "ELIXIRS OF LIFE"

A considerable portion of the Edwin Smith Papyrus written in the seventeenth century before Christ is devoted to discussion of

"The incantation for transforming an old man into a youth of twenty."

The subject was not new then, but can be traced back through further centuries until, like other historical data, it becomes lost in the mazes of mythology and antiquity. During nearly 4000 years since the early written accounts, there are numerous and more or less connected references in the literature of efforts and methods of restoring sexual youth to the aged. At almost every stage of world development are records of alleged discovery of the true elixir of life and its sale to the public by ubiquitous Ponce de Leons. Many of the vendors profited greatly by these sales, just as they are profiting now by promoting one or another of the numerous and "only sex restorers" offered for sale to a gullible public.

Amulets are still sold as in the days of Babylon. The "Fountain of Youth" wells of Egypt and of the Irish folk tales are always in the land of Bimini just around the corner. Sorcerers still bend over blue flickering braziers and vamp youth back into the aged as they did in the days of Hermippus.

The youth-restoring milk from the blended male and female goats of antiquity has been replaced by an easier but no more certain use of the goats' sexual organs.

Aged flappers, male and female, with the sagging tissues of their necks "hooked up" by surgeons, and their exposed wrinkles ironed out by massage until they look like billikens, insure plenty of propaganda that is utilizable as "news." As "exhibits," they apparently bask in the notoriety they gain from the pathetic exposition of their pictures and senile statements to the public. Their careers are usually short, because the old arteries go on hardening; the creaking joints continue to stiffen, and the brain continues to soften all the more rapidly because they are unnaturally speeded up and not allowed to grow old gracefully.

This remarkable opportunity, of publicity ready-made and a mad world trying to defeat God's edict, proves too much for some physicians who themselves fall for the glitter of gold and the tinsel of notoriety. This is the most sickening phase of the whole situation.. The attitude and conduct of some physicians in California and elsewhere is casting reflection upon other members of a creditable profession and is causing many people who look to physicians for guidance, to jeopardize their health and squander their funds for a new youth that is no more attainable by the use of monkey glands, goat glands, or what not, than it was for those other silly fools who followed the incantations of the Nile doctors.

Two European "doctors," Steinach and Voronoff, now appear to be jockeying for first place in advance propaganda preparatory to making a fortune out of the health and lives of our citizens. One of them appears to be waiting for his much-advertised monkey farm in Africa to become sufficiently populated with the strong healthy males of the species, while the other is to be accompanied by his own surgeon who will perform the "difficult," "new" operation that is old and is performed several hundred times a month in our country, to prevent propagation of the unfit.

In the meantime and while awaiting the arrival of these elderly "leaders" who apparently have not healed themselves, we are being entertained by the vulgarities of "little Voronoffs" from the ranks of our local profession. Their "press agents" are making them notorious; their disgusting, nauseating practices are damaging the standing of a humanitarian profession, and many silly, often senile, citizens, rich and poor, are being duped by alleged remedies for sexual impotence.

Our medical societies expel members who follow other cults, and they ought to expel advertising alleged "gland specialists." This not only for the honor of their profession, but for the cause of better medicine for all citizens.

Nothing in this editorial is intended to reflect upon the splendid research work going on in many places but which is not put forth prematurely by propagandizing specialists for their own aggrandizement and to the detriment of the public in health.

ECONOMIZING IN STATE "HOSPITALS"

According to news dispatches from Sacramento, as a result of the economy program of Governor Richardson, the cost of care of the patients in Napa State Hospital has been reduced from $21.75 in November, 1922, to $19.24 in November, 1923.

This information, which apparently is given out as something to be proud of, should be challenged in the name of those who are not able to speak for themselves. Such shamefully inadequate costs can be arrived at only by "special" methods of accounting or by rendering poor service to the sick. Every person who has the responsibility of providing a living knows that neither the 72 cents a day for 1922 nor the 64 cents a day for 1923 are sufficient to provide good housing, clothing, subsistence and other costs for healthy people, much less those who require all of these things and medical, surgical, nursing, laboratory and other forms of care in addition.

In no branch of medicine has greater progress been made than in the treatment and management of neuropsychiatry patients. The splendid results that are being reported from a few Government hospitals elsewhere and many private ones from everywhere are not attained at a cost of a few cents a day. The daily per capita actual cost of the minimum of good institutional, medical, surgical, nursing, X-ray, dietetic, laboratory, and other care of these patients is expressed in dollars instead of a fraction of a dollar. This regardless of the character of management or ownership of the institution rendering the service.

The ultimate cost to taxpayers is not so much greater for efficient care than it is for the custodial care still too prevalent in politically controlled "hospitals." This is because a much higher percentage of the patients become much improved and

many recover and are restored to usefulness when adequate treatment is given. Then, too, some healthy physicians and nurses cannot serve long and maintain their mental poise in some of these so-called hospitals that give such care to patients as is possible at a cost of a few cents a day.

The demands and criticisms of whole-minded patients and their friends in other classes of hospitals exert a powerful influence toward the constant improvement of these hospitals. There is no such chance in hospitals for those whose minds are darkened and where visiting periods are so rigidly controlled. This should make us all the more solicitous for the welfare of the benighted patients. Every known possibility for improvement in the mental and physical condition of each of these patients should be patiently exhausted before they are treated as derelicts.

Efficient "hospital" care of the mentally irresponsible is one thing and the "custodial" care of the hopelessly demented is another and much less expensive service. Both are necessary. No government should have the right to place patients in the "custodial care" class until they have been carefully studied by staffs of competent physicians under real hospital conditions and all hope of their betterment under any circumstances has been given up.

We do not believe that the people of California desire or, if they knew, would tolerate less than we have indicated for their fellow citizens who are unable to speak for themselves. Intelligent persons will very well know that adequate hospital and professional service is not, and cannot be, rendered at a cost of a fraction of a dollar a day.

The facts as to what is being done and what is not being done are matters of record, but until such time as some powerful and active civic organization becomes interested in the question, publication of additional facts would serve no useful constructive purpose.

WHY "POSITIVE HEALTH"?

The double negative has long been subjected to the attacks of grammarians for the very simple reason that its meaning is exactly the opposite of that intended. The double positive is not in such ill-repute because it is seldom used and only Shakespeare, with his "most unkindest cut," is permitted to use the double superlative without censure, if not without comment.

There is a double positive recently come into common usage by certain health workers, however, that ought to be consigned to the graveyard of things-that-never-should-have-been, and that is the phrase "positive health." Surely, disease in itself is negative and, consequently, health must be positive. Why paint the lily?

Some American medical journals are guilty of using this deplorable term, and at the recent International Health Education Conference in San Francisco it was lipped with great frequency. Of course, it is understood that the phrase is intended to cover generalities, but when we have so many words with which to be specific and so many health subjects that require exactness, why should we positive the positive so glibly and so meaninglessly?

Health education is vastly more than the imparting of mere generalities. Pupils must receive their education in health by means of simple, direct statement of fact. The teacher who can talk only in vague generalities cannot teach. The public, furthermore, wants and will get its health information in definite terms. Leaders in the advance of the public health movement of today must know exactly the message that they have to give, and they must know how to present it in clear, simple, direct, plain Anglo-Saxon. Heavier pressure on the positive alone will never eliminate the negative, and ostrich-like methods in not recognizing disease will never result in the promotion of the public health.

COLORADO'S "MATERNITY LAW"

Colorado has a new "Maternity Law." It has some interesting features. Provisions are made for the expectant mother during the last six months of her pregnancy. The infant's welfare is assured during its first six months after birth. The operation of the law is in the hands of the Children's Court, over which Judge Ben Lindsay presides. Either the mother or friends may make application for relief, which includes all varieties, from cash to medical and hospital care. All proceedings are conducted in the most confidential manner. Physicians and hospitals and nurses are paid for their services.

Unmarried mothers are given the same confidential care as others, including loss of identity in maternity hospitals. Infants of unmarried mothers will be placed in homes upon request. The law also gives the court wide authority in dealing with the father responsible for an illegitimate child.

It is claimed for this law that it requires no enlargement of government machinery and that its benefits are easily and confidentially available without red tape to any mother unable to pay the necessary costs of adequate assistance.

The power of the court to require fathers to accept financial and other responsibility for their illegal children is expected to reduce the cost of operating this law to the taxpayers.

This all sounds too good to be true.

PERSONAL PUFFERY

No conscientious physician can examine large press-clipping services and read the great number of letters that pour into the office of any medical organization without becoming gravely concerned over the tendencies of so-called "education of the public" in medical subjects. The movement for Medical and Public Health Education for the Public is as old as medicine itself. There are on file in libraries plenty of resolutions and discourses upon it dating back through the centuries. We have recently read some that might be republished today, as new and as appropriate as they were when originally presented centuries ago.

Of course the public should be informed—as far as they are capable of comprehending without medical education—upon all subjects pertaining to

better health. A review of what has been, and what is being, produced along this line indicates rather depressing conclusions. Much is being put out that is inaccurate in this or that particular point, depending upon the source of the alleged information. Many of the subjects discussed and conclusions drawn for the alleged benefit of the public are controversial even among physicians themselves. The result is that, if one collects the press clippings, the "release stuff," the text-books and brochures of all sorts that are being put out upon some phases of the question, he can find just as great a variety of opinions as those already existing in the minds of the public. In other words, we are not clarifying public opinion at all, but actually confounding the confusion that already exists.

On the other hand, some of the educational material, and particularly that which is given out in an impersonal way, is accurate, reliable, well digested, and well presented. It is unfortunate that this class constitutes only a small fraction of the other kind.

In addition to the confusion that is being confounded by the inaccuracies and general character of much of the medical educational literature, we have the lack of sufficient knowledge among the "educators." It, of course, should be obvious that a teacher in the field of public health and medicine, regardless of who is being taught, must first himself have sufficient knowledge of the subject he is teaching to present it clearly and accurately. It probably would not be an overstatement to say that not one out of a hundred of those "informing" the public upon medical and health subjects knows what he or she is talking about. We thus have another explanation as to why the general public is confused about even the simplest subjects of medicine and public health.

This also accounts, to a very remarkable degree, for the prosperity of quackery of one sort or another at the present time—a prosperity never before seen in the history of the world. Our modern medical frauds are no different in their fundamental operation from those of earlier times. Cultists and quacks rely upon the ignorance and superstition of the people they propose to serve. Inaccuracies and confusion in supposedly authentic "educational material" and the lack of education of the instructors themselves, as shown by examination of their sayings, give to quacks chances which they never before had.

Another danger in this situation, which has been pointed out recently by many thoughtful writers, is that the controversial points in public health and medicine, as well as the froth and more or less immaterial points, are receiving the maximum amount of attention, while the essential and major subjects are being neglected or relegated to places of secondary importance. Questions like vaccination against smallpox, inoculation against diphtheria, pure water and air, and food supplies, general sanitary conditions, exterminating disease-bearing insects, and many other fundamental problems, are receiving scant attention; whereas propaganda as to the use of monkey glands, cancer specifics, tuberculosis specifics, and similar movements, receive tomes of publicity and dogmatic conclusions from ignorant or commercially interested persons.

Finally, the worst feature of all is the personal puffery that is being put out by certain doctors, groups, and clinics for their own aggrandizement and the promotion of persons toward which the propaganda directs the arrow. The great injury of this sort of unethical puffery is being more and more felt by conscientious physicians, and they resent it for themselves and because it detracts from public confidence in the profession as a whole. The editor of this Journal receives many letters from physicians criticizing the conduct of some physicians, clinics and organizations for this type of propaganda, and if the feeling in the hearts of the majority of good physicians were known to some of these personal puffers it might cause them at least to use more subtle means of self-advertisement and self-aggrandizement.

Some of these doctors come out boldly under their own names and often with their photographs, while others hide their heads in a clinic or some other organization and imagine that their real motives will not be understood. Brothers, it takes a great deal more subtlety than some of you are using to fool the general public—much less physicians.

SAN FRANCISCO COUNTY MEDICAL SOCIETY APPROVES ADULT HEALTH CENTER FOR THE UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL

The Out-Patient Department of the University of California Medical School and Hospitals has established an "Adult Health Center" for the "periodic examination of apparently normal individuals." This movement, as explained in the following outline of policy, was presented to the board of directors of the San Francisco County Medical Society at its meeting on October 9, and approved by them for the county society:

Adult Health Center, University of California Medical School

The Out-Patient Department of the University of California Hospital is establishing, under the jurisdiction of the Department of Medicine, an Adult Health Center for the periodic examination of apparently normal individuals. The purposes are: (1) To detect early disease processes, faulty hygiene or other conditions which, if not corrected, may result in impaired health; and (2) to educate the medical student in normal variations in health and early symptoms and signs of disease.

The Adult Health Center will examine indigents or those of small means who are unable to pay for the services of a physician. The fee will be $1, to include an examination of urine, stool, blood, Wassermann, and vaccination for smallpox. Applicants who are found ineligible for the examination by reason of ability to pay will be referred to their family physician.

The examination offers no special problem, and is one that any physician may undertake in his private office. Emphasis will be placed on corrective measures when defects are noted. Physicians will be welcome.

The Adult Health Center will extend the work which has been going on for years in the Department of Pediatrics and Obstetrics of this and other medical schools, to the adult group in the Department of Medicine. Such work has

embraced the clinics for well babies, children of pre-school and school ages, the prenatal care of mother and child, and care of the mother for at least a year after delivery. These activities will be continued.

Of course, every physician and every physicians' organization is interested and concerned in providing facilities for medical and public health care of all people, of all ages, everywhere. The American Medical Association has approved the policy and provided a plan, including physicians' office records. for the periodic examination of "apparently normal individuals." A number of private organizations, well financed, are in the field to accomplish this purpose through various forms of membership or insurance policies. Hundreds of members of the California Medical Association are now engaged in doing this work for one organization or another, as well as for the members of their own clienteles.

It is illuminating to note the advance among groups, clinics, and municipal health organizations of one sort or another in the development of this field. Some of them limit their work to people who can pay for the service in fees of from $1 up; others are altruistic enough to offer service only to those who are able to pay $1 or less.

Two years ago the California Medical Association, through its House of Delegates, passed a resolution making every physician's office in the state a "health center." That resolution, with explanatory comment, was published in the November, 1922, number of the California State Journal of Medicine, and is as follows:

Health Centers

Resolutions adopted by the House of Delegates of the Medical Society of the State of California on May 17, 1922.

Whereas, It always has been and is the primary purpose of physicians to give trained, scientific, sympathetic service to all of their fellow-citizens who need medical advice and to **furnish this service to all alike, regardless of the social or financial standing of the patient,** and

Whereas, It never has been and is not now necessary to interpose any agency not under the direct supervision and control of competent members of the medical profession between the physician and his patient. Co-operation in agencies where such medical supervision and control does not exist often proves detrimental to the interests of both patients and physician, and

Whereas, In order to re-emphasize these policies and practices to all citizens of California, and to counteract the influences going about the State to the effect that consideration by physicians for those needing medical advice can be obtained only by applying to some non-medical organization, and in order that the public may be fully informed and free to call directly upon the physician of its choice, with the assurance of sympathetic and confidential consideration, therefore, be it

Resolved, By the California Medical Association and representatives of all county and other constituent organizations, in convention assembled, that the office of each of its 4000 members throughout the State is a "health center" of the kind that means the best medicine and public health advice that physicians can give; **this upon the basis that those who can pay in full should do so, those who can pay part should do so, and those who are unable to pay should have the service without cost.**

Resolved, That in order to secure special financial consideration, the patient is requested to execute and sign a paper showing his socio-financial status and setting forth briefly the reasons why he must ask for special financial consideration, this being the policy now being followed by honest clinics and welfare organizations.

Physicians' Offices As "Health Centers"

One of the important resolutions passed unanimously by the House of Delegates at the last annual meeting of the State association was printed on the front cover of the November, 1922, Journal. Contained in the minutes of the House of Delegates, as part of that resolution, is the following note:

"The State society will supply each of its members with appropriate blank forms for this purpose, and will furnish one to any citizen who desires to use it. One of these forms presented to any member of the State society in any part of the State will insure the courtesies and special consideration that his condition warrants and, in addition, he will receive the same sympathetic, confidential, constructive help that is given to the person who is able to pay fully for all that he requires. In carrying out this program, physicians reserve the right, when they think wise, to check up on the accuracy of the applicant's statements in an unobtrusive and sympathetic manner, in exactly the same way as those reports are now being checked up by clinics and other welfare organizations. Members also reserve the right to refer applicants for special consideration to other physicians under the same conditions and for the same reasons that they would refer patients paying regular fees. Any sick person in any part of the State of California who fails, for any reason, to secure adequate medical attention is requested to communicate with the secretary of the State Medical Society, 1016 Balboa Building, San Francisco."

It is the general impression among physicians, and the resolution itself so states, that it is a re-emphasis of the practices and policies of physicians everywhere at all times.

There are two outstanding features of this resolution, the most important being that **physicians are ready to render service to any person requiring professional care; that those who are able to pay the physicians' regular fees for this service should do so, those who are able to pay part should do so, and those who are unable to pay any of the fee should have the service just the same;** all services, regardless of the status of the patient, to be rendered in the same high grade, confidential, sympathetic manner. The other important feature in the resolution is that it never has been, and is not now, necessary to interpose any agency not under the direct supervision and control of competent members of the medical profession between the physician and his patients.

It has been said by some that, if the spirit of this resolution were applied, physicians would not be able to give adequate care to all of the ambulatory sick in this State, particularly in certain congested centers. The facts are, that members of the medical profession **now** take care of all of the ambulatory sick, as well as those who are bedridden and require more time, and, furthermore, the problem in the aggregate is not as large as some people seem to think. If all the sick people in the State of California, of whatever class, kind and condition, were divided up equally among the seven thousand educated physicians practicing in this State, they would have less than twenty sick people

each to look after. If the ambulatory patients were so divided, the doctors' offices of this State would average less than ten visits per office per day.

The primary consideration in the carrying out of this or any other resolution or policy of the medical profession is, that the sick people, regardless of class of sickness, their place of residence or any other consideration, should have adequate medical care. This medical care should be available to all ambulatory patients in physicians' offices and to all others in their homes, hospitals or wherever else they may be. The resolution of the State Association is an effort to make these facilities available in a practical manner.

If the terms of this resolution were carried out in good faith—as they are being carried out by some members of the State Association—there would be little room or little excuse for more elaborate and pretentious clinics. There is in San Francisco County, for instance, one physician to each 500 of population, which is four times as many as necessary to give the public health advice and treat all the sickness that occurs in the population, provided this work could be allocated. Many of these physicians, members of our society, have very small incomes, and many of them, if they would follow the terms of the resolution of their own State Association, might develop a future clientele and make many friends, by the examination of apparently normal individuals for very small fees.

Careful work has shown that among the population of any community periodic examination shows the necessity of a certain amount of professional work in more than three-fourths of those examined. This periodic examination is a very important service to a community; it ought to be done by physicians in their offices, but if physicians are not willing to do it upon the basis of accepting a fee commensurate with what the person is able to pay, then it is perfectly proper that clinics of state or municipal organization undertake the service and employ physicians to do it.

If it is necessary for clinics to do this work for people who are unable to pay more than $1 for each service, it is likely that the large volume of medical work which is developed by these clinics will be performed by the hospitals and members of the clinic making the original examinations. This is a most important point and ought to have serious consideration by physicians who have spent large sums of money and made many sacrifices to get an education.

Another point that must not be lost sight of in making periodic examination is that the record of the examination should be available to the physician who is going to treat the patient in any illness that may be discovered by the examination, and also to other physicians who may later be called upon to treat the patient.

Between the efforts of various insurance companies, life extension institutes and similar organizations, groups of physicians and individual physicians who are now and long have been engaged in making periodic examinations, and the crop of "periodic examination clinics" that are sure to develop, the people of San Francisco ought to be well served in their examinations.

COUNTY NEWS

ALAMEDA COUNTY

Fabiola Hospital — New Maternity Building Opened—On December 15 Fabiola Hospital opened its new Maternity building for inspection by the public. A luncheon was given for the staff in the nurses' home, attended by about 160 physicians, including several guests from San Francisco and other nearby points. Throngs of people visited the building from 2 to 5 in the afternoon and were served with tea. Mrs. J. P. H. Dunn, assisted by other members of the board and members of the staff, explained the workings of the new department to the visitors.

The new unit contains 21 private rooms, 29 ward beds, 2 cubicle wards of 5 beds each, 2 two-bed wards, 5 three-bed wards. There are two delivery rooms, two nurseries, one isolation nursery, two doctors' rooms, as well as a complete X-ray and deep therapy treatment department. The cost of the building and equipment was approximately $260,000. During the last ten years the hospital has done $113,000 worth of free and part-pay work, there being a daily average of ten free and part-pay patients treated during 1922.

Dr. Liliencrantz, president of the staff, presided at the luncheon, and called upon Daniel C. Crosby for a brief outline of the history of Fabiola Hospital, and Dr. Crosby responded as follows:

In 1876, when Oakland was a small community—scattered over a large area with few of the usual municipal advantages and improvements which characterize many smaller communities of the present day—a man was severely injured upon one of its streets. The injury was a terrible one and the County Hospital, such as it was, was ten miles away, and there was no ambulance and no trained people to transport him. Transportation in a lumber or hay wagon meant death in all probability, and the by-standers stood aghast.

Mrs. R. W. Kirkham, who had recently come to Oakland to make her home, passed that way, shared in the horror and anxiety of the by-standers, and with much surprise learned that Oakland possessed no hospital of any sort. Her comment was short and direct and pregnant with meaning, "Then Oakland must have a hospital."

There were then in this community, as there are always in all communities, people of philanthropic instincts and altruistic vision who were willing to make and lead others to make practical applications of their philanthropy and altruism. Eighteen women, of whom Mrs. A. Liliencrantz, Mrs. I. E. Nicholson and Mrs. Alice Cameron still survive, organized a hospital and dispensary association, and, being closely allied with several enthusiastic homeopathic physicians, called their new venture "The Oakland Homeopathic Hospital and Dispensary Association."

From small beginnings, great enterprises grow—as the oak from the acorn. The acorn of development of Fabiola was a tremendous need, which awoke a fine enthusiasm, and each woman of the original eighteen subscribed $50 for a life membership. This limited sum of $900 in money and a limitless wealth of the milk of human kindness constituted the nucleus from which the present institution has evolved.

The declared object of the association was to provide a home for the sick, worthy poor, entirely without means or for those with limited means, but no home. Two free beds were to be maintained, and for such other beds as could be provided, a fee, graduated in proportion to the patient's means, was to be charged for medical attendance and hospital care. The corps of medical attendants were to give their services without fee.

A small house secured at Nineteenth and Market

streets, painted, cleaned and refurnished by the hands of Mrs. H. C. Taft, Mrs. W. W. Standiford and Mrs. Wallace Everson, was turned into a hospital and dispensary, and here the first patient, a homeless, young woman, late in pulmonary tuberculosis, was cared for for six months until her death. Even her burial was attended to by the association. After another protracted case, which terminated fatally, the County Board of Supervisors voted $40 per month to the association on condition that it care for all cases referred by the board.

After one year of this experiment, the Hospital Association having lost $100 in the process, this stipulation and agreement was discontinued, and from that time the board of directors have depended upon their own efforts and the community interest which they have been able to develop to maintain their enterprise.

The list of contributions in the early years is very interesting (three quarts of milk for two months; a basket of fruit; two dozen towels; a chicken; ten dollars; and innumerable items of necessities in small amounts) and shows that, while these women were working in a small way, their interest and oneness of purpose was always emphasized. When a child's bed was contributed and a few toys were given to interest the child, there was much glee at the increased facilities.

By 1883 the hospital had outgrown its quarters; a house at 1057 Alice street was purchased and the good work went on. However, after a lapse of three years this place was no longer adequate and new arrangements were necessary. When the inadequacy of the Alice street location became apparent, the need of material change appealed to two men whose names must be inscribed with gratitude whenever the interests of Fabiola Hospital are considered. Anthony Chabot, with a generosity typical of him, presented to the association the two and one-half acres upon which the institution now stands and Frederick Delger contributed $5000 toward the erection of a building.

Following these two red-letter events in the history of the institution, the annual report of 1887 announces that "we are about to erect a hospital building after the models of the most eminent sanitary engineers." This building was erected in due time and now constitutes the old building of the present group, and is the one which must, within the next few years, be replaced by a fireproof structure.

Up to January, 1887, as many free as pay patients had been cared for in the hospital and this was rendered possible by the very generous support which had been given the institution by a gratefully interested public.

At this time, feeling that the public should know and understand that the institution was not devoted entirely to homeopathic practice of medicine, the name was changed from "The Oakland Homeopathic Hospital and Dispensary Association" to "Fabiola Hospital Association." The name "Fabiola" was chosen because of the noble Roman matron who in the fourth century went about the city of Rome caring for the sick poor and established the first hospital in the world. "How far the little candle throws its beams." Of the woman Fabiola, Leckie said, "The charity planted by that woman's hand overspreads the world and will alleviate, to the end of time, the darkest anguish of humanity."

By 1887, eleven years after its inception, this enterprise of altruism, philanthropy and mercy was established beyond peradventure and steps were taken to bring to fruition a larger plan, because the association had earned the confidence of the community.

It will be a matter of interest to Oaklanders that when the present site was purchased and given by Anthony Chabot, the only objection voiced to the location was that it was too far from the center of things in the city. The success which crowned the efforts of the good women in charge of the hospital's destinies did not come without great labor and economy on their part, and the institution always had to look at both sides of the family shilling, for at the end of the tenth year, in 1886, the treasurer's report shows a balance on hand of 45 cents.

In 1908 the new surgery, as it is called, was erected and the second phase of the hospital's existence was made manifest and offered another milestone of record of the results of patience, economy and industry, even while combined with altruism and philanthropy.

So many women have given their best thought and time and energy to the welfare of Fabiola Hospital that it is difficult to single out any one of them. However, the names of four stand out: Mrs. Kirkham, whose thought gave birth to the enterprise; Mrs. John Yule, who for twenty-four years guided the destiny of the board and to whose untiring efforts, more than to the efforts of any other one, must be credited the erection of the first or main building of the present plant; Mrs. Remi Chabot, who directed the activities of the institution from 1908 until 1916; and Mrs. J. P. H. Dunn, who succeeded her mother in 1916 and under whose able leadership the hospital has prospered and grown in size and in quality until now the institution is opening one of the most modern maternity hospitals in the West.

A good modern hospital must have well-equipped clinical laboratories, X-ray laboratories, operating rooms, adequate nursing service and good kitchens in charge of trained dietitians, and all of these we now have. We can hardly compare the little rooms at Nineteenth and Market streets with the present plant, but for that reason all the more must we bare our heads to show the respect due to those women and to the professional staff which made the first beginning possible.

The hospital situation has changed greatly in the intervening years. The Alameda County Hospital, under the trained leadership of a noted hospital authority and with a highly competent professional staff, is no longer the poor house of an older day, and, while still housed in the old building at its old site, is now a splendid institution and before long will be housed in the new Highland Hospital, which will be second to none in the West. Dr. Samuel Merritt devoted much of his fortune to the admirable institution which bears his name and the mercy of his bounty will be exercised as long as this city lasts. The Sisters of Providence have come to Oakland and met another phase of the city's needs in the effective way that their training and opportunities permit them. Both of these and the smaller excellent hospitals about the bay are rendering much free service to the needy sick.

The Oakland Homeopathic Hospital and Dispensary Association may well be proud to acknowledge the Fabiola Hospital of the present day that, without special endowment, without outside support of great moment, thrives under the direction of a devoted board who seek no monetary reward and who, out of the earnings of the institution, have been able year after year to render more than a thousand dollars a month of free service to the needy overtaken by illness.

The torch lighted in 1876, marking the way for untold numbers to health and well-being, is still burning and is carried high to keep bright the traditions of the pioneers of Fabiola.

CONTRA COSTA COUNTY

Contra Costa County Medical Society (reported by L. St. John Hely, secretary)—The annual meeting of the society was held at Hotel Oakland, November 21. A banquet was served, followed by a theater party at the Orpheum, for the following members and guests: Dr. and Mrs. C. L. Abbott, G. M. Bumgarner, H. L. Carpenter, P. C. Campbell, C. R. Leech, E. B. Fitzpatrick and C. R. Blake; Dr. J. T.

Breneman and daughter; L. St. John Hely, Hall Vestal and F. L. Horne, and Miss Agnes Driscoll of the Cottage Hospital.

The following officers were elected for 1924: President, Hall Vestal; vice-president, G. M. Bumgarner; secretary-treasurer, L. St. John Hely.

The subject of group insurance was discussed.

FRESNO COUNTY

Fresno County Medical Society (reported by John D. Morgan, secretary)—The regular meeting of the Fresno County Medical Society was held at the General Hospital of Fresno County on December 4. Forty members were present.

Leo Eloesser of San Francisco spoke on "Surgical Treatment of Septic Condition of the Chest."

James H. Bryant, of Hume, has been elected to membership. Thomas M. Hayden of Fresno was elected to honorary membership. The following resolution was adopted:

"Whereas, After thirty-five years of practice of medicine and surgery in the city and county of Fresno. Thomas M. Hayden has retired from active practice and,

"Whereas, During the entire existence of the Fresno County Medical Society, Thomas M. Hayden has been an active member and an untiring worker in the interests of ethical medicine, now therefore be it

"Resolved, That as a token of esteem and honor held for Thomas M. Hayden by the members of Fresno County Medical Society he is herewith elected to honorary membership in the society; be it further

"Resolved, That a copy of this resolution be spread on the minutes of the society and a copy sent to Thomas M. Hayden with the best wishes of the society."

KERN COUNTY

Kern County Medical Society (reported by P. J. Cuneo, secretary)—Vice-President Moore, in the absence of President Sabichi, presided at the meeting of the society held November 15 in Bakersfield, at the Kern County Hospital. The following members answered to the roll call:

Bacon, Goodall, Gundry, Compton, Rogers, Morris, McNamara, Smith, Hamlin, McKee, Moore, Cuneo, Veon.

Miley B. Wesson of San Francisco was the guest of the society and gave a talk, illustrated by many lantern slides, on "The Kidney and Ureter," which was followed by extended discussion led by Gundry, Moore and McNamara. Hamlin, Morris and McKee were appointed a committee to arrange for the annual banquet, to be held at Stockdale on December 20. It was voted to have the ladies present and follow the meeting by a dance. The January meeting will be held at Taft. Veon, Bacon and Smith are to have charge of the February session.

M. F. Frandy, late of Maricopa, was given a transfer to the Santa Barbara County Society, as he is now a resident of Guadalupe. Kern county regrets to lose Frandy as a member but wishes him all success in his new location.

Leland Ellis has been at Santa Barbara for the last six weeks in attendance upon his mother, Dr. Kathyln Ellis, who has been very ill.

N. Portoghese is now located at San Diego.

E. A. Schapor, who holds membership in our society, although he resides in San Francisco, paid us a visit recently.

C. W. Kellogg, retired, has returned from a several months' absence at Moro Beach.

New Kern County General Hospital—The new hospital being erected at Bakersfield is now about half complete, and the board of supervisors have awarded a bid of $111,000 for the new Home for the Aged, which is to be a unit of the General Hospital plant, erection to be started at once.

In the past year it has been the policy to isolate all patients with communicable diseases in the General Hospital, and it has been found highly advantageous, as it has reduced contagiousness 50 per cent.

LOS ANGELES COUNTY

Murphy Memorial Hospital, Whittier—Work has started on the addition to the Murphy Memorial Hospital, and under the personal supervision of Colonel Simon J. Murphy it will proceed until the new wing is ready to turn over to the city for furnishing. This new gift by Colonel Murphy will cost considerably over $100,000 and will add forty beds to the capacity of the hospital, or a total of ninety. The new wing is being built on the southeast end of the main building and will be four stories in height. Colonel Murphy is quoted in the press as saying: "Our slogan shall continue to be, 'Everything for the patient.' I have been well satisfied with the attitude of the people of Whittier in regard to my wishes to make the standard of this memorial hospital as high as possible, and I believe the hospital staff has been a most decided help in realizing this ambition. For these reasons I am more than happy to be able to again help in giving to Whittier one of the best hospitals on the coast."

Hollywood Hospital—On November 11 members of the staff, officers and employes and the friends of the hospital in general inspected the new plant, after they had been entertained at a ham-and-egg breakfast at the institution. The hospital will have 150 beds, a nurses' home and a laundry.

Seaside Hospital, Long Beach—This excellent hospital is owned and operated by physicians. The earnings of the hospital above 6 per cent are utilized in giving service to those unable to pay. A year ago arrangement was made with the public welfare department of the city by which the hospital would operate an outpatient department for the poor. The hospital furnishes space, equipment and staff and hospital personnel. The welfare department supplies a social service investigator and worker and pays the cost of the medicines and other extras. Three hundred and eighty-five thousand were treated during the year; there were 1202 examinations, 408 special treatments, 102 operations, and 44 patients were fitted with glasses. The public health nurse and social worker connected with the department made 941 home visits to patients.

MERCED COUNTY

Merced County Medical Society (reported by Brett Davis, secretary)—Monthly meeting held in Merced, November 8, with the following present: W. C. Cotton, J. L. Mudd, D. W. Zirker, Brett Davis, C. W. Kohl, E. R. Fountain, Frank W. Yokum, W. E. Lilley, A. S. Parker.

H. A. L. Ryfkogel of San Francisco presented the subject, "The Acute Abdominal Symptoms," first giving the physiology of the gastro-intestinal tract, then the acute conditions of appendicitis, perforation of gastric or duodenal ulcer, biliary and renal colic and acute pancreatitis, differentiating them and stressing the importance of not giving an opiate before a diagnosis is made and not giving laxatives, food or drink while symptoms are acute.

Brett Davis has resigned as city health officer of Merced, and A. S. Parker has been appointed in his place.

There has been a small epidemic of scarlet fever in Merced during October and November.

Merced Hospital, Merced—This newly constructed and equipped hospital was formally opened on November 20. The hospital was financed by a sale of stock under the plan proposed by the League for the Conservation of Public Health, whereby any earnings above 6 per cent must be utilized in rendering service to people unable to pay. The hospital has thirty beds and cost $60,000. After its completion the trustees leased the hospital to Miss Iva E. Trumbell for a period of five years.

ORANGE COUNTY

Santa Ana Valley Hospital Association—Plans are under way to raise an increased amount of funds for financing the new Santa Ana Valley Hospital. Approximately $125,000 is already on hand, but an effort will be made by a committee of seventy-five to sell another $150,000 worth of stock.

PLACER COUNTY

Placer County Medical Society (reported by Robert A. Peers, secretary)—The Placer County Medical Society held its annual meeting in the Masonic Hall, Auburn, December 1. The following members were elected as officers for the year 1924: President, H. N. Miner; vice-president, J. A. Russell; secretary-treasurer, Robert A. Peers; associate secretary, Charles J. Durand; delegate, Sidney J. Talbot; alternate, Harry M. Kanner.

Case reports were made by G. H. Fay, J. G. Mackay, H. M. Kanner, L. B. Barnes, W. L. Whittington, Robert A. Peers.

Owing to the fact that this was the annual meeting, no literary program was presented.

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—The society met December 6 at the San Bernardino County Hospital, with thirty members present, forty-seven absent, and five guests. R. S. Gibbs opened the program with a paper on "Some Special Conditions of Pregnancy"; discussion was opened by W. D. Lenker. Clifford McKee of Los Angeles gave a paper on "A Study of the Uterine Scar following Cesarean Section," and discussion was led by H. W. Mills. Norman Williams of Los Angeles took as his subject, "Cervical Repair on Ninth Day Post-partum"; discussion opened by C. G. Hilliard.

The following new members were welcomed into the society: Walter F. Pritchard (by transfer from Napa County), A. N. Kerr and V. L. Minehart of Arrowhead Springs, and Lenore D. Campbell of Loma Linda.

SAN DIEGO COUNTY

San Diego County Medical Society (reported by Robert Pollock)—In few communities are the relations between the organized medical profession and that of dentistry more closely and harmoniously affiliated than in San Diego. On Tuesday evening, December 11, the members of these two professions, with their wives, enjoyed together an excellent dinner at the San Diego Hotel, after which the following social program was presented : Three-minute speeches by J. E. Jennison, M. D., retiring president of the medical society, and W. E. Walsh, D. D. S., retiring president of the dental society; reading of the elections of the day, the polls having closed at 5 p. m.; brief talks by the newly elected presidents, Andrew J. Thornton, M. D., and F. G. Titus, D.D.S.

The program up to this point was interspersed with vocal numbers by the Orpheus Male Quartet, which were thoroughly enjoyed, and culminated in the address of the evening on the "Meaning of Citizenship," by John P. Buckley, D. D. S., of Los Angeles, ex-president of the American Dental Association. Afterward dancing was enjoyed by those present until a late hour.

Complete returns of the day's election follow:

Medical Society—President, A. J. Thornton; vice-president, Mott H. Arnold; secretary, George B. Worthington; treasurer, C. O. Tanner; councilors, F. H. Carter, M. C. Harding, H. A. Thompson; certified milk commission, W. W. Crawford, R. J. Pickard, R. G. Sharp, H. A. Thompson, A. B. Wessels; delegates, T. O. Burger, W. W. Crawford, Robert Pollock, George B. Worthington; alternates, M. C. Harding, J. C. E. Nielsen, L. H. Redelings, Martha Welpton.

Medical Library Directors—E. A. Blondin, M. M. Doria, W. H. Geistweit, Jr., M. C. Harding, D. R. Higbee, R. A. Lush, R. J. Pickard, Robert Pollock, L. H. Redelings, Harvey Stallard, W. E. Walsh, George B. Worthington; secretary-treasurer, C. O. Tanner, M. D.

U. S. Naval Hospital, San Diego—Plans have been completed for a $500,000 addition to the Naval Hospital. This splendid hospital is well located in Balboa Park and is one of the newest and best constructed and best managed of modern hospitals.

SAN FRANCISCO COUNTY

San Francisco County Medical Society (reported by J. H. Woolsey, secretary)—During the month of November the following meetings were held

Tuesday, November 6—Committee on Medicine—Pediatrics—(1) An unusual case of suppurative myositis, Samuel Hanson; (2) An epidemic due to streptococcus infrequens, Edith Boyd; (3) Management of meningococcus meningitis, E. C. Fleischner.

Tuesday, November 13—General Meeting—Nomination of officers for 1924. The Question of Pregnancy in: (1) Nephritis, Alice F. Maxwell; (2) Cardiac disease, Adelaide Brown; (3) Pulmonary tuberculosis, G. H. Evans.

Tuesday, November 20—Committee on Surgery—(1) Some problems in ano-rectal surgery, A. J. Zobel; (2) Citrate blood transfusion and report of 250 cases, E. L. Bruck and LeRoy Brooks; (3) Demonstration of apparatus for reduction of fractures of femur, James Eaves and Paul Campiche.

Tuesday, November 27—Committee on Eye, Ear, Nose and Throat—(1) Demonstration of cases, instruments and methods; (2) A few notes on Halle's clinic with especial reference to his endonasal surgery, Robert D. Cohn; (3) Present aspect of postgraduate and clinic work in Vienna, Warren D. Horner.

William W. Wymore Appointed to the Board of Health—Mayor James Rolph, Jr., has again demonstrated his wisdom by appointing a well-known member of the San Francisco medical fraternity upon the board of health of the City and County of San Francisco. Doctor Wymore graduated from Cooper Medical College in 1895 and during all his professional life he has been engaged in the active practice of his profession in San Francisco. He was a captain in the medical corps of the U. S. Army during the World War. The vacancy which Doctor Wymore is to fill is caused by the completion of fourteen years' service in that position by Dr. George B. Somers.

It may be predicted with confidence that safe, sane, conservative, legitimate medicine and public health will continue to make progress along the right lines with men like Wymore controlling the activities of the City and County Board of Health.

Saint Luke's Hospital Clinical Club—At the regular meeting of the Saint Luke's Hospital Clinical Club of December 4, E. S. Kilgore discussed cardiac neuroses. A. C. Gibson spoke on pan sinusitis and suggestions for treatment at the meeting held December 18.

St. Joseph's Hospital—On December 12 St. Joseph's Hospital staff held its monthly meeting with a varied program. R. M. H. Berndt, T. James and William Quinn presented case histories of patients with post-operative myocarditis, broncho-pneumonia and embolism.

Ethan Smith spoke on hospital notes made on a six months' vacation, including observations in Victoria, Vancouver and Winnipeg, Canada, and in Michigan and Ohio.

W. T. Cummins, director of the clinical laboratories, reviewed the work of his department, showing an increase in different lines, from 75 per cent to 500 per cent. He described new colored sheets for future reports, L. Crowe, director of the X-ray department, gave a resume of his work, and suggestions for future progress. H. Unsinger outlined

the augmented requirements for the library and Newman read the financial account.

On January 9, the "Modern Treatment of Lymphangitis" will be presented by Harry C. Coe, and "Surgical Treatments in Syphilis" by Howard W. Fleming.

University of California Medical Society (reported by William J. Kerr, secretary)—The regular monthly meeting of the University of California Medical Society, held in Toland Hall, University Hospital, on Thursday, November 22, 1923, was attended by more than one hundred members and guests.

J. H. Woolsey of the Department of Surgery presented a case of jejunal ulcer which had followed gastro-enterostomy in a patient suffering from ulcer of the duodenum. The frequency of the condition and symptoms which suggest the possibility of such an ulcer were discussed. Specimens of similar ulcers were shown as well as ulcers at the region of a gastro-enterostomy which apparently resulted from the use of silk as a suture material. A. E. Rockey of Portland was present and discussed the presentation.

Herbert M. Evans of the Department of Anatomy spoke of the vitamin known as vitamin X which he and his co-workers have been able to isolate from plants and food materials. He showed the effect on rats of removing this substance from the diet—the fertility of the animal was seriously interfered with. When the foods containing this substance were added to the diet of these same rats, fertility was re-established.

While Dr. Evans did not feel that this vitamin was much of a factor in the ordinary diet, yet it was of some interest in showing the effects of diet on fertility.

The next meeting of the society will be held Thursday, January 24, 1924. Karl F. Meyer will speak on "Medical and Non-Medical Experiences in Europe During the Past Year," and Drs. Rusk and Woolf will present something of pathological interest.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by Alex C. Soper, Jr., secretary)—The regular meeting was held Monday, December 10 at the Cottage Hospital, President Means in the chair. Present: fifteen members, two guests, and three internes.

President Means gave a report on his conference with the City Council in the matter of public health questions, and their cordial reception of the aims of the society. Matter also discussed by Freidell, Bagby and O. C. Jones of Lompoc.

George F. Farman of Los Angeles gave a paper on "Some types of chronic recurrent pyelitis and their treatment," which was discussed by Wills, Freidell, Pierce and Sansum.

It was moved by Pierce, seconded by Hotchkiss, that a vote of thanks be extended to Farman for his excellent paper. Passed unanimously.

It was moved by Bagby, seconded by Schurmeier, that the annual banquet in January be held at the Hotel Samarkand. Passed unanimously.

SISKIYOU COUNTY

Siskiyou County Medical Society (reported by C. C. Dickinson, secretary)—At the last regular meeting of the Siskiyou County Medical Society, held in Yreka, November 12, 1923, the following officers were elected for the ensuing year: President, C. W. Nutting, Weed; vice-president, F. B. Lucas, Hilt; secretary-treasurer, C. C. Dickinson, McCloud.

SONOMA COUNTY

Sonoma County Medical Society (reported by N. Juell, secretary)—On December 13 the society met at Petaluma with twelve members present, twenty-five absent; four visitors. E. W. Cleary of San Francisco delivered an address on "Fractures," with illustrations.

Fifty dollars was voted to be sent to aid suffering German medical men. G. S. Holeman was transferred to Centerville, Alameda county. G. W. Mallory, a charter member of this society, was re-elected to membership.

The following officers were elected for 1924: President, Alfred A. Thurlow, Santa Rosa; vice-president, A. M. Thomson, Sonoma; secretary, N. Juell, Santa Rosa; treasurer, R. M. Bonar, Santa Rosa; censors, F. O. Pryor, Santa Rosa, J. H. McLeod, Santa Rosa, J. W. Cline, Santa Rosa; delegates, H. L. Rogers, Petaluma; alternate, F. O. Pryor, Santa Rosa.

The meeting was followed by a banquet.

STANISLAUS COUNTY

Stanislaus County Medical Society (reported by R. E. Maxwell, secretary)—The Oakdale members of the society entertained the members of the society and their ladies at a turkey dinner, which was served by the culinary department of the Oakdale high school. The following members were present: C. J. Bemis, C. E. Benson, J. A. Cooper, F. R. DeLappe, E. V. Falk, C. E. Finney, E. F. Hagadorn, F. R. McKibbon, President E. R. McPheeters, J. W. Morgan, secretary pro tem, C. E. Pearson, F. J. Peters, E. F. Reamer, B. F. Surryhne, and J. A. Young.

H. G. Mehrtens of San Francisco read a paper on "Neuro-Syphilis, with Technique of Swift-Ellis Treatment." The subject was exceptionally well handled.

E. G. Allen was admitted to membership in the society.

A committee on insurance was appointed, following talks on the subject by representatives of the Medical Protective and Aetna companies.

A vote of appreciation and thanks was given the Oakdale school board for the use of the school for the meeting.

Roentgen-Ray Intoxication—S. L. Warren, San Francisco, and G. H. Whipple, Rochester, N. Y. (Journal A. M. A., November 17, 1923), state that evidence from animal experiments and scattered clinical observations is convincing that the human intestinal mucosa is peculiarly sensitive to the hard and short-wave length Roentgen rays. A similar condition obtains in the common laboratory mammals. It is probable that the intestinal epthelium is at least as sensitive as the skin epithelium, and it may be more so when its increased distance from the Roentgen-ray target and the intervening body tissues are considered. Erythema doses or larger doses given over the abdomen or intestinal areas may cause injury to this sensitive intestinal epithelium. The authors urge particular care should be used when "cross-fire" is used over areas including intestinal coils, as the loops may be seriously injured. Local Roentgen-ray injury to intestinal coils may not give rise to severe clinical intoxication, but may cause ulcers that are no less chronic and dangerous than are the familiar Roentgen-ray skin "burns." It is very desirable that all cases in which erythema or larger doses are given over the abdomen be very carefully studied and reported so that our knowledge as to the danger limits may be comprehensive. Until such time, we must use the data obtained from controlled animal experiments. Such experiments indicate that the intestinal epithelium is quite sensitive to hard irradiation. These facts should receive careful consideration by the radiologist who contemplates radiotherapy of abdominal areas (for example, pelvic tumors).

THE FUNCTION AND PROPER FIELD OF ACTIVITY OF THE PUBLIC HEALTH OFFICER

In promoting the betterment of public health, Leverett D. Bristol, Olean, N. Y. (Journal A. M. A., Nov. 24, 1923), says the private practitioner and the public health official must co-operate to bring about desired results. While special functions and fields of activities of health officers and private practitioners may differ, their objects and aims are the same—to promote positive health for all members of society and to relieve the more unfortunate persons of disease and suffering. The local board of health is the oldest and the most responsible public health unit. As its chosen executive officer, the local health officer should be the public health leader and educator of his community. In those States having laws permitting the employment of county health officers or general district health officers for counties, such health officers possess all the powers and duties conferred on local health officers within their particular jurisdictions.

There are two forms of State health organizations, one in which the power and authority is vested in a State board of health, consisting of several part-time officials, which employs a secretary or executive officer usually on a full-time basis. Some of the more progressive States, have reorganized State health work in such a way that the chief power is vested in a commissioner who has the assistance of an advisory council. The outstanding need in entire future health programs is that which has to do with rural public health and sanitation, and its adequate development throughout the State. In general, it may be said that, while there has been a gradual decline in the death rate in the cities, the death rate in country communities has remained fairly stationary.

In addition to carrying on educational work, State health authorities may have other important functions and fields of activity, such as: (1) investigation and research of various kinds; (2) epidemiologic and laboratory diagnostic service; (3) standardization of methods and forms; (4) fixing of professional standards for the qualifications of health officers; (5) supervision of schools or courses of instruction for health officers; (6) popular publicity work; (7) the control of communicable diseases or nuisances affecting more than one community or district; (8) the recording of vital statistics; (9) the inspection and control of foods and drugs; (10) the examination and control of public water supplies and sewage disposal plants; (11) supervision over the manufacture of antitoxins and vaccines; (12) supervision over hospitals and sanatoriums for tuberculosis; (13) supervision over maternity, infancy and child hygiene work, and (14) supervision over public health nursing service.

The most essential requirement for the ultimate success of public health administration, local, State and Federal, is a sympathetic co-operation between the private practitioners of medicine and surgery and the public health authorities. The private practitioner of medicine is potentially the most important unit in public health work. If the private practitioner has failed in the past to take his proper place and to assume his true function in preventive medicine, it is because of the fact that he has thought too much of his individual rights and prerogatives and too little of his obligations and responsibilities to the public. His chief obligations are.

1. Legal obligations, including: (a) The prompt and accurate reporting of births, (b) The prompt and accurate reporting of deaths, (c) The prompt and accurate reporting of all diseases required to be reported. 2. Professional or moral obligations, including: (a) Early and accurate diagnosis, (b) Prompt and efficient treatment, (c) Education of his patient as to the patient's future needs, and as to the patient's own relation to the health of the community, (d) Co-operation with the constituted health authorities.

What is needed is not "State medicine," but organized medicine; medicine which is organized in such a way that, while it remains largely in the hand of private practitioners, it will reach rich and poor, city folk and country folk, children and adults, not only after disease has gained a foothold, but before disease has become apparent, and while the individual is yet well and strong. The practitioner of the future must work and think more in terms of physiology and less in terms of pathology.

In the medical schools of the past and present, the departments of pathology have been and still are the outstanding and most popular departments, while those of preventive medicine have had to fight for existence. In the medical schools of the future, the departments of pathology must naturally fade into insignificance compared to the growing departments of physiology, hygiene and preventive medicine. Let the curriculum makers give less time to the "dead house" and cirrhotic livers and more time to the houses of the living and the principles of hygiene.

SAFE MILK

There is less public discussion about "safe" milk than there was a few years ago. Recognition of the importance of milk as a food and of the fact that it has to be carried long distances to market has established the principle that milk sanitation is a necessity. The procedures involved have at length become fairly well "standardized." Foremost are:

1. Prevention of all possible contamination by those handling the milk on the farm and in the dairy and by proper care of the cow. The utmost refinement of this plan is observed in the production of certified milk or its equivalent, produced and cared for under exceptionally sanitary conditions, and constantly supervised and inspected by a medical milk commission.

2. Pasteurization by one of a variety of commercial methods. Its use has greatly increased in recent years. The general tendency is toward the pasteurization of all market milk except the certified milk, and in some large cities it is compulsory.

Tuberculosis is the commonest disease with which cows are affected, and therefore demands particularly careful consideration in connection with milk, although the other possibilities of milk-borne infectious agencies are not by any means negligible. It is pertinent to inquire from time to time, therefore, whether commercial pasteurization conducted, as it must be, on a large scale, actually destroys tubercle bacilli.

A careful investigation in a representative American city has shown the presence of these microorganisms by actual inoculation tests in specimens of the raw milk of average quality delivered to city dealers. It was also demonstrated that pasteurization by the holding process between 142 and 148 F. for thirty minutes destroys the tubercle bacillus in the milk. The commercial process of rendering the milk safe can readily be made efficient; it should never be allowed to fail wherever dependence is placed on pasteurization.—Journal A. M. A., Nov. 24, 1923.

A New Procedure for Performing Litholapaxy—Albert E. Goldstein, Baltimore, and J. Fletcher Lutz, Glenn Rock, Pa., (Journal A. M. A., December 8, 1923), are of the opinion that in an uncomplicated case of vesical calculus lithotrity or litholapaxy is the operation of choice. They have devised a method by which the operation is made a safe and rapid procedure, and at the same time visualized without the aid of the cystoscope. This is performed by combining litholapaxy with fluoroscopy in an air medium. The operation is always under the control of the eye, making it a rapid and safe procedure. Accidents and burns are negligible.

YOUR STATE JOURNAL

The journal of your State society is your own publication and the official organ of your own society, writes F. C. W. in the A. M. A. Bulletin of October, 1923. As such it deserves your active support. If it is not so good as you think it should be, you can help to make it better. The State journal serves for the publication of scientific papers presented at the meetings of the State association and of county district medical societies, for recording and commenting on professional and organizational activities, for maintaining contact between component societies and their members throughout the State and for keeping its readers informed about the comings and goings and the fortunes, good or bad, of their fellows in the State; and it serves also as a forum for the discussion of professional problems of the times.

You can lend real support and constructive assistance to your State journal in many ways. A few suggestions as to how your personal assistance may be extended are here offered:

1. See that what you write contains more than just a grouping of quotations and trite observations. Make it reflect your personal experiences and results. Strive to make your every-day work produce something that will be helpful to your fellows in their professional labors and try to impart to them the worthwhile things that you have learned in the pursuit of your professional duties.
2. Read the editorials in your journal, and if you have personal opinions that are not selfish, tell the editor about them. Discuss with him and with your fellow-members the problems of the day in your community and State, and record your judgment as to the best solution of these problems.
3. Urge the officers of your county medical society to report the meetings of the society and the activities of the profession in the county to the journal. If these officers are overburdened, offer them your aid in the preparation and transmission of such reports.
4. Let your friends in the profession throughout the State know what the physicians in your community are doing. Send news notes and items of social interest to the editor of the State journal. Your professional friends are interested in you, and the State journal can promote and maintain friendly associations throughout the State if you will help do it. Your friends want to know when you are married, when you become a proud father, when your community honors you, when good fortune shines on you, and, yes, when you are dead. If you are not heard from, they may think you dead.
5. Your annual dues and the dues of your fellow-members in the State medical association do not produce nearly enough money to pay the cost of your State journal. The editor and his associates are constantly busy making up the difference, by securing advertising contracts. These can be secured, but they cannot be continued in force unless the other persons interested in them, the advertisers, receive returns on their investment in your journal. Those products advertised in the State journal are dependable, because none but reputable concerns are permitted to advertise. When you buy what is advertised in your State journal, you buy standard products.
6. Read your State journal from cover to cover. Probably this should have been our first suggestion. At any rate, it is desired to impress you with its importance. The reaction will come which will bring about improvement in a poor journal, if any such there be, and will make a good journal better if the members of the State association will read it. Even in the poorest, there will always be found something helpful.

No matter how busy you are, your State journal and The Journal of the American Medical Association should be read at the first opportunity after they are received. The busier you are, the more you need to read them. The physician who does not read these journals is the man who does not progress—in fact, he is the man that retrogresses.

It is hoped that, in thus calling the attention of the readers of the Bulletin to the State medical journal, an expression of renewed interest in their State medical publications will be evoked from our Fellows. As this interest manifests itself, we will witness the development of a greater solidarity and greater unity of purpose, and of effort in medical organization and in scientific progress.

The Treatment of Neurosyphilis—The problem of the treatment of neurosyphilis according to H. C. Solomon, Boston (Journal A. M. A., Nov. 24, 1923), is to destroy the spirochetes that are present in the nervous system. The nervous tissue is walled off from the general body structures, and this leads to a relative impermeability of drugs placed in the general circulation. However, some penetration takes place, the amount apparently varying in different individuals. There is a group of neurosyphilitic cases that react well to mild systemic treatment. Others require more intensive systemic treatment. There are many, however, that are not improved to any extent by systemic treatment with arsphenamin, mercury or iodid. Some of these cases do well, however, when medicaments are given directly into the cerebrospinal fluid or when spinal drainage is used. Theoretically and practically, it seems advisable to place the medicament as near to the site of pathologic change as possible, utilizing the lumbar subarachnoid space, the region of the cisterna magna and the ventricles as conditions indicate.

No definite rules can be laid down as to which type of treatment will produce the best results in a given case. A classification based on the reaction to treatment does not coincide with the older ideas of tertiary syphilis of the nervous system as contrasted with parasyphilis, because some cases of tabes and paresis react quite well to relatively mild systemic treatment, whereas some cases of the meningovascular group do poorly on the same type of therapy. It is more difficult on the whole, to get satisfactory results in cases of tabes and general paralysis than in the meningovascular type, and the former usually require quite intensive treatment, making use of the cerebrospinal fluid pathway. There still remains a group of cases that cannot be satisfactorily modified by treatment with arsphenamin, mercury, the iodids and blood serum. The immunity of the patient plays a large role in the results obtained, and various procedures that may increase the immunity responses have a place in the treatment of neurosyphilis. Of great importance are all hygienic procedures that improve the general condition of the patient. Some favorable reports have been made from inducing febrile reactions by inoculations with malaria and relapsing fever. The hope for the future rests either in the method of inducing greater immunity on the part of the patient or in developing drugs with greater power of permeation into the nervous tissue.

The Treatment of Urethral Stricture by Excision—The history of urethral stricture as it is recorded in medical literature is reviewed by Granville MacGowan, Los Angeles (Journal A. M. A., December 1, 1923), and the technic of its repair is discussed in detail. In the author's operation, the intention is to restore the tube by approximating its cut ends in their entire circumference, and this, he says, is best achieved not by the laying of a circular stitch, such as was done by Mayo Robson with success after the excision of an annular stricture where the loss of structure was not more than one-fourth inch, and as was the practic of König, but by slitting the urethra and spongy body both anteriorly and posteriorly into three strips, or ribbands, one posterior and two lateral, using great care not to mangle the tissues and to have clean incisions. MacGowan reports no failures from the use of this method.

Utah State Medical Association

University of Utah Medical School Inspected—A committee appointed by the Utah State Medical Association has made a thorough inspection of the University of Utah medical school. This committee, composed of leading doctors of the State, was created last June at the suggestion of President George Thomas, of the university, and Ralph O. Porter, dean of the medical school. It is to inquire into the work given at the medical school, thereby permitting constructive suggestions and criticism, and to actively co-operate in making the first two years of the university medical course equal to similar work at any medical school in the United States.

Although the committee has not yet made an official report, it was evident from the remarks of the individual doctors that they were well pleased and in some instances very much surprised at the quality of work required of medical students.

Dr. Porter declares that lack of active co-operation between the medical school and the medical profession of Utah has in the past hindered the proper development of the school, but judging from the interest now shown by the doctors, that difficulty has largely been overcome.

During the past year many changes have been made in the school. The faculty has been materially strengthened, and much needed equipment added. Classes are limited to twenty-five students, and the selection is made purely on the basis of scholarship.

Members of the committee were: J. W. Morrell of Ogden, president of the Utah State Medical Association; J. C. Landenberger of Salt Lake, former president of the association; Sol Kahn, president-elect of the association; Francis A. Goeltz, president of the Salt Lake County Medical Society; Robert Hampton, Salt Lake; E. F. Root, Salt Lake; H. P. Kirtley, Salt Lake; Clarence Snow, Salt Lake. They were accompanied on their tour of inspection by Dean Porter and President Thomas.

New Members of Utah State Medical Association—A. A. Anderson, Templeton Bldg., Salt Lake City; P. M. Chase, McCornick Bldg., Salt Lake City; R. G. Frazier, Bingham Canyon; B. L. Kesler, Bountiful; Paul Richards, Bingham Canyon; George E. Robison, Boston Bldg., Salt Lake City; G. W. Rutledge, Kaysville; Henry Rite, Sugar House; John W. Sudgen, Judge Bldg., Salt Lake City; F. R. Slopanskey, Boston Bldg., Salt Lake City; George A. Anderson, Springville; B. C. Linbaugh, Pleasant Grove; L. C. Potter, Provo; L. D. Stewart, Payson; A. G. Stoddard, Spanish Fork.

Salt Lake County Medical Society (reported by F. F. Hatch, secretary)—The last regular meeting of the Salt Lake County Medical Society for the year 1923 was held on December 10.

The secretary F. F. Hatch, read his report which was accepted with the following corrections:: That Roy Groesbeck ends his service as censor of the society with this meeting; that the late A. S. Bower's death be noted in the secretary's report with the additional information that the society's regrets were submitted to the family at that time; that the delegates now in office remain on the rolls until new ones are elected in June, 1924.

The treasurer's report by V. J. Clark was read and ordered filed.

Report of the Library Committee was given by Chairman W. R. Tyndale. In speaking concerning this committee, S. C. Baldwin reported that the transactions of the American Orthoepedic Association could be had for the asking. It was moved, seconded and passed that Baldwin's recommendation be added to the report and the report filed.

The Medical Legal Committee, with E. F. Root as chairman, gave a verbal report, which was accepted and a motion was made accepting it, which was carried.

The Liability Insurance Committee reported, B. W. Black, chairman, that this or a similar committee be held over as they have been in office only two weeks, and should complete the work started. Moved, seconded and carried that the report be accepted and the committee continued.

The Committee on Public Health and Legislation was reported on by John Z. Brown, the chairman, orally, which report was accepted by the society.

The amendment to the By-Laws, as stated fully in the last meeting's minutes, was accepted and carried unanimously, making the fiscal year of the society begin January 1 with dues payable then, and making members delinquent on February 1. This means delinquent members would have to pay $12 dues—an additional $2 for reinstatement, the regular dues of the society being $10.

Motion was made appointing an Auditing Committee. Seconded and carried and the chair appointed A. A. Kerr, chairman, L. N. Ossman and Edward LeCompte as this committee.

There was a discussion of the Baby Clinic by Thomas Clark, who made a motion to appoint a committee to study the Baby Clinic in the City Board of Health's Department and consult with Christopherson and Commissioner Barnes in regard to its continuance. This motion was amended by M. M. Nielson, that the committee investigate all hospitals treating charity cases. The amendment was accepted in the original motion and was carried unanimously.

The officers for the year 1924 were elected as follows: A. A. Kerr, president; John Z. Brown, vice-president; M. M. Critchlow, secretary; Joe Jack, treasurer; F. A. Goeltz, censor.

Utah County Medical Society (reported by Fred R. Taylor, secretary)—At the last regular meeting of the Utah County Medical Society, G. Gill Richards of Salt Lake gave a very interesting and comprehensive paper on the Insulin Treatment of Diabetes. His paper was supplemented with case reports and an exhibition of some of the common diabetic foods.

The following new members were admitted to membership in the society—J. W. Bergstrom, Cedar City; George C. Nelson, Loa: George H. Mott, Santaquin; Thomas D. Rees, Nephi. Plans were also completed for the handling of the Utah County Free Clinic.

Weber County Medical Society (L. R. Draper, secretary)—The annual banquet and election of officers of the Weber County Medical Society was held at the Weber Club, Ogden, Utah, Tuesday evening, December 18. In place of the usual program of after-dinner speakers, a short vaudeville performance was given, which was enjoyed by all members and visiting physicians.

E. G. Hughes councilor of Provo; A. A. Kerr, president of the Salt Lake Medical Society, and Samuel Baldwin of Salt Lake were guests at the meeting.

Preliminary arrangements were made for a closer co-operation between the Weber County Medical Society, the Salt Lake County Society and the Utah County Society.

The following officers were elected for the ensuing year: President, W. A. Whitlock, Layton, Utah; vice-president, F. K. Bartlett, Ogden; secretary and treasurer, L. R. Draper, Ogden.

Nevada State Medical Association

ABSTRACTS FROM NEVADA MEDICAL BULLETIN

(Editor, Horace J. Brown, 14 Thoma-Bigelow Building, Reno, Nevada)

November 15—It may seem a little early to begin talking about the 1924 meeting but your incoming officers are so anxious to please you in the matter of the time and place for holding it that they feel that it is not too soon to begin asking your wishes about it. We want to so arrange it that the greatest possible number can attend, and we would like to have an expression from every member. Eight of our members favored us with papers at the last meeting and we hope to have twelve next year. On a recent visit to the editorial office of the California Journal, they requested the names of our members, with their specialties designated, so that they can ask us to write discussions of papers to be published by them. Our members will be asked to discuss the papers read at our recent meeting. Each of our members will receive a copy of the December issue, complimentary, and the January issue will go to all that have paid dues in advance at the new rate of $7 per year. The new arrangement of membership and the California Journal for $7 seems to be quite popular, as we have had five new applications for membership recently. Here-to-fore county secretaries have sent $3 for each member to the State Association but for 1924 they should send $5, and we hope they will remit promptly, when they collect the dues, so that the secretary can send the names of those paid in advance to the California Journal.

December 1—The California Medical Journal is undoubtedly one of the best State journals and we should be able to get lots of good ideas out of it during the coming year. Each issue will have a page set aside for our use and we can fill all, or any part of it with news and announcements of especial interest to Nevada. Dr. George L. Servoss, 150 N. Virginia street, Reno, will be the Associate Editor for this State and he will appreciate it very much if all those that have news items, or other interesting matter, will send same to him. We mentioned in a previous issue that professional cards will be accepted for the advertising columns, at the rate of $30 per year or $20 for six months. There are several of our members that will probably wish to take advantage of this offer, and they can either write to Dr. Musgrave or to our secretary. We had the opportunity to ask three members from various points in the State as to where the 1924 meeting should be held and they are unanimous in naming Bowers Mansion. They all seem to have had quite an enjoyable time out there and want to go back again. We would like to hear from every member on this subject, and also as to the time for holding the meeting, as we want to set the time and place as early as possible in the New Year. We have the promise of two papers as a starter for the program and hope to hear from several other prospective essayists in the near future. Don't forget that you must have your dues paid in advance if you expect to receive the California Journal and if your conscience hurts you about 1923 dues you can relieve it by sending a check for $12 to the secretary. Please don't delay as the retiring secretary would like to turn over a clean set of books to his successor.

Nevada News Items

M. R. Walker, Reno, has been appointed assistant surgeon for the Southern Pacific Co., for the Reno district.

Anna B. DeChene, Reno, has been appointed Councilor for Nevada of the Medical Womens' National Association.

The following officers were elected for 1924 by the Washoe County Medical Society: President, Rodney H. Richardson; vice-president, L. V. Smith; secretary-treasurer, V. A. Muller; councilors, G. L. Servoss and C. W. West.

C. W. West, retiring president of the Washoe County Medical Society, entertained the members of that body at his home, following the monthly meeting on December 4.

Five applicants appeared before the Board of Medical Examiners on November 5, four of whom passed and one failed.

F. F. Owens, Ely, College of Physicians and Surgeons, New York, 1896, was found dead in his office on November 23. He was 51 years of age.

W. F. Boylan, Bridgeport, California, Eclectic Medical Institute, Cincinnati, 1891, died November 26, after a few days' illness from heart disease. He was 55 years old.

The following new members have been admitted to the association since the annual meeting: R. S. Tillotson, East Ely; W. H. Frolich, East Ely; J. H. Hastings, Pioche; George Pearn, Jarbridge, and George R. Magee, Yerington.

D. A. Smith, Mina, has been appointed county physician of Mineral county. J. W. Davis has resigned.

J. B. Wilson has removed from Lovelock and will locate at some point on the coast, probably at Los Angeles.

New Experiments on Rejuvenation—The Journal has commented on the experiments of Steinach and others in the rejuvenation of animals presumed to follow ligation of the vas. Recently Macht and Teagarden of Johns Hopkins University have perpormed similar operations on six rats, all more than a year old and showing definite signs of senescence. These were compared with two other animals used as controls. Fourteen additional rats were studied by special methods involving the use of animals operated on and adequate controls. The details of the method leave no doubt as to the scientific character of the experiments. After ligation, a number of the rats showed distinct improvement in general appearance and behavior. They were more active, and several developed a new coat of fur. These changes persisted only for several weeks, however, and the animals gradually relapsed into their usual senile state. Also distinct improvement in muscular co-ordination and muscular efficiency of the animals was noted, but this was temporary, lasting only a few weeks. It is the belief of the observers that all the changes noted seemed to have been the results of the operation; they assert, nevertheless, that this cannot be said positively without numerous additional experiments. This work would seem to confirm the impression now prevailing that the various rejuvenation experiments constitute at best only a temporary stimulus, and that the inevitable result is relapse, if not, perhaps, a shortening of life because of additional burdens thrown on a senescent organization.—Journal A. M. A., Nov. 24, 1923.

Expect to be called a standpatter, but don't be a standpatter. Expect to be called a demagogue, but don't be a demagogue. Don't hesitate to be as revolutionary as science. Don't hesitate to be as reactionary as the multiplication table. Don't expect to build up the weak by pulling down the strong. Don't hurry to legislate. Give administration a chance to catch up with legislation.—President Calvin Coolidge's political creed.

BOOK REVIEWS

Non-Surgical Drainage of the Gall-Tract. A treatise concerned with the diagnosis and treatment of certain diseases of the biliary and allied systems, in their relation to gastro-enterology and general clinical medicine. By B. B. Vincent Lyon, M. D. 640 pages. Illustrated. Philadelphia and New York: Lea & Febiger. 1923. Price, $10.

Although this volume of 623 pages is entitled the non-surgical drainage of the gall-tract, the author states in his preface that he has two major purposes, the first to present to the medical profession in more complete form the diagnostic and therapeutic value of non-surgical drainage of the biliary system, etc., and the second to present the author's plan of a systematic and practical method of studying the gastro-intestinal tract as a whole. He then proceeds at great length and in great detail to accomplish his major purpose, with here and there a pause for the development of some minor purpose, such as a six or seven-page discussion of Giardia infection.

Approximately 150 pages are devoted to the diagnostic and therapeutic uses of non-surgical drainage of the gall-tract, with an additional 123 pages of illustrative case histories.

There can be no question but that this procedure has a definite place in the study and treatment of biliary tract disease, but it remains for the future to determine its exact value. From the diagnostic standpoint, the procedure requires extreme care and attention to detail, as emphasized by the author, but even then I fear the findings, especially the bacteriologic, may be misleading.

The remainder of the book is devoted to chapters on the embryology, anatomy, histology, and physiology of the biliary system and to various chapters dealing with methods of study and treatment of gastro-intestinal condition in general and biliary-tract conditions in particular.

The whole subject matter is well presented, but I believe would have been of greater service if the author had kept strictly to the first of his major purposes, reserving the second for a separate volume.

W. W. B.

A Manual of Proctology. By T. Chittenden Hill. 279 Pages. Illustrated. Philadelphia and New York; Lea & Febiger. 1923. Price $3.25.

A short practical compendium, containing considerable information and considerable misinformation. Some of its statements are founded on hearsay evidence accepted by the author with too little inquiry. However, the book tells what to do and how to do it in a simple and readable way, so that it will probably find a large audience. L. E.

Alcohol and Prohibition, In Their Relation to Civilization and the Art of Living. By Victor G. Vecki, M. D. Philadelhpia and London: J. B. Lippincott Company.

This book ought to have a wide circulation; certainly every physician ought to read it, and other citizens will find much in it to think about. Not all physicians will agree with everything that Vecki says, but they certainly will give him credit for an honest expression of opinions, presented in an interesting and attractive manner. W. E. M.

The Tonsils—Faucial, lingual, and pharyngeal. With some account of the posterior and lateral pharyngeal nodules. By Harry A. Barnes, M. D. Second edition, 217 pages. Illustrated. St. Louis: C. V. Mosby Co. 1923. Price $5.

This is a well-edited, readable book. The chapters on histology and pathology are excellent and much the strongest. The chapters on surgery are not of the same high standard and all will not agree with the author's views on the relative merits of local and general anesthesia, methods of inducing local anesthesia, position of patient during operation, and methods of controlling post-operative hemorrhage.

A Primer for Diabetic Patients. A brief outline of diabetic treatment including directions for the use of insulin, sample menus, recipes, and food tables. By Russel M. Wilder, M. D., Mary A. Foley, Dietician, and Daisy Ellithorpe, Dietician. Second edition, 119 pages. Philadelphia: W. B. Saunders Co. 1923.

An excellent little manual. It tells the patient exactly what he should know. He has a homely way of putting information that is peculiar to the Mayos. It is equally well suited to a diabetic college professor or a diabetic Minnesota farmer.

L. E.

BOOKS RECEIVED

Alcohol and Prohibition in their Relation to Civilization and the Art of Living. By Victor G. Vecki, M. D., San Francisco. Philadelphia and London: J. B. Lippincott Co.

Collected Reprints, from the George Williams Hooper Foundation for Medical Research. The Department of Medical Research of the University of California Medical School, San Francisco. Volume VII, 1922-1923.

Hygiene and Public Health. By Louis C. Parkes, M. D., Consulting Sanitary Adviser to H. M. Office of Works, Fellow of the Royal Sanitary Institute, and Henry R. Kenwood, C. M. G., M. B., Chadwick Professor of Hygiene in the University of London. Seventh edition with illustrations. Philadelphia: P. Blakiston's Son & Co., 1923.

Mental Disorders, an Introduction to the Study of. By Francis M. Barnes, Jr., M. D., Associate Professor of Nervous and Mental Diseases in the St. Louis University Medical School, etc. Second Edition. St. Louis: C. V. Mosby Co., 1923.

Diagnostic Methods. A guide for history taking, making of routine physician examinations and the usual laboratory tests necessary for students in clinical pathology, hospital internes and practicing physicians. By Herbert Thomas Brooks, M. D., Professor of Clinical Medicine, College of Medical Evangelists, Los Angeles, formerly Professor of Pathology, College of Medicine, University of Tennessee. Fourth edition, with fifty-two illustrations. St. Louis: C. V. Mosby Co., 1923.

Modern Aspects of the Circulation in Health and Disease. By Carl J. Wiggers, M. D., Professor of Physiology in the School of Medicine of Western Reserve University, Cleveland Ohio. Second edition, thoroughly revised. Illustrated with 204 engravings. Lea & Febiger, Philadelphia and New York, 1923.

A Treatise on Orthopaedic Surgery. By Royal Whitman, M. D., Surgeon to the Hospital for Ruptured and Crippled; Consulting Orthopaedic Surgeon to the Hospital of St. John's Guild, etc., seventh edition thoroughly revised. Illustrated with 877 engravings. Lea & Febiger, Philadelphia and New York, 1923.

Local Anaesthesia Methods and Results in Abdominal Surgery. By Hans Finsterer, Surgeon-in-Chief, Vienna Hospital of the Brothers of Charity,

Authorized English version by Joseph P. F. Burke, M. D., Attending Surgeon, Buffalo Hospital of the Sisters of Charity and Buffalo City Hospital. Forty-two illustrations. New York: Rebman Co.

The Medical Department of the United States Army in the World War, Volume V. Military Hospitals in the United States. Prepared under the direction of Maj. Gen. M. W. Ireland, M. D., Surgeon General of the Army, by Lieut. Col. Frank W. Weed, M. C., U. S. Army. Washington: Government Printing Office, 1923.

A Critical Examination of Psycho-Analysis. By A. Wohlgemuth, D. Sc. (Lond.) New York: The Macmillan Co., 1923.

Diseases of the Skin. By Richard L. Sutton, M. D., Professor of Diseases of the Skin, University of Kansas School of Medicine; former chairman of Dermatological Section of the American Medical Association; Assistant Surgeon, U. S. Navy, retired. With 1069 illustrations and 11 colored plates. Fifth edition, revised and enlarged. C. V. Mosby Co., St. Louis, 1923.

Nutrition and Clinical Dietetics. By Herbert S. Carter, M. D., Assistant Clinical Professor of Medicine, Columbia University, Consulting Physician to Presbyterian Hospital, Lincoln Hospital, Skin and Cancer Hospital, New York; Paul E. Howe, Ph. D., Associate, Rockefeller Institute for Medical Research; Howard H. Mason, M. D., Associate in Diseases of Children, Columbia University, New York, Visiting Physician, Children's Service, Presbyterian Hospital, New York. Third edition, thoroughly revised. Lea & Febiger, Philadelphia and New York, 1923.

A Manual of Proctology. By T. Chittenden Hill, M. D., Instructor in Proctology, Harvard Graduate School of Medicine, surgeon to Rectal department, Boston Dispensary. Illustrated with 84 engravings. Lea & Febiger, Philadelphia and New York, 1923.

The Treatment of Diabetes Mellitus, with observations based upon three thousand cases. By Elliott P. Joslin, M. D., Clinical Professor of Medicine, Harvard Medical School· Consulting Physician, Boston City Hospital. Third edition, enlarged, revised and rewritten. Illustrated. Lea & Febiger, Philadelphia and New York, 1923.

Diseases of the Skin. By Frank Crozer Knowles, M. D., Professor of Dermatology, Jefferson Medical College; Dermatologist to the Philadelphia General, The Presbyterian, The Children's and The Babies' Hospitals. Second edition, thoroughly revised. With 229 illustrations and 14 plates. Lea and Febiger, Philadelphia and New York, 1923.

Kurzes Lehrbuch der Chemie in Natur und Wirtschaft, von Prof. Carl Oppenheimer, Dr. phil. et. med., Berlin. nebst einer Einführung in die Allgemeine Chemie, von Prof. Johann Matula in Wien. Georg Thieme, Verlag, Leipsig, 1923.

Uber Hysterie, von Dr. Ernst Kretschmer, Privatdozent für Psychiatrie in Tübingen. Leipsig, 1923. Verlag von Georg Thieme.

Medizinische Psychologie, Ein Leitfaden für Studium und Praxis, von Dr. Ernst Kretschmer. Zweite Auflage. Mit 22 Abbildungen. Leipsig, 1922. Georg Thieme, Verlag.

Diagnostische Technik für die ärztliche Praxis, ein Handbuch fur Ärzte und Studierende. Herausgegeben von Professor Dr. Julius Schwalbe Geh. San.-Rat Mit 380 Abbildungen. Leipzig, 1923, Verlag von Georg Thieme.

HOSPITAL EXTENSION WORK

The following schedule of operative and dry clinics in the teaching schools and accredited hospitals of California will be found of service to graduate physicians in general practice who desire to avail themselves of the opportunity for observation and study:

Stanford University Hospital, San Francisco
(Operative Clinics)

Practical work in clinics and laboratories open to physicians during July, August, and September.

Surgery — Tuesday, 8 a. m. to 12 m.; 1:30 p. m. Thursday, 8:30 a. m. to 12 m.; 1:30 p. m. Saturday, 8:30 a. m. to 12 m.; 1:30 p. m.

Genito-Urinary — Monday, 8:30 a. m. to 12 m.; Friday, 8:30 a. m. to 12 m.

Gynecology — Tuesday, 1:30 p. m.; Wednesday, 8:30 a. m.; Friday, 1:30 p. m.

Nose and Throat—Monday, 1:30 p. m.; Wednesday, 1:30 p. m.

Orthopedic (Class)—Monday, 2 p. m.; Friday, 10 a. m. to 12 m.

Eye—Wednesday, 1:30 p. m.

Stanford University Medical School, San Francisco
(Medical Clinics)

General Medicine—Wednesday, 11:30 a. m.

Obstetrics and Gynecology—Saturday, 11:30 a. m.

Clinico-Pathological Demonstrations — Monday, 11:30 a. m.

Colloquia at San Francisco Hospital

(Programs posted in Lane Medical Library and County Medical Society Library.)

Medical—Friday, 10 a. m.

Surgical—Thursday, 9 a. m.

University of California Hospital, San Francisco

Medicine—Ward rounds, daily, 10 a. m. to 12 m.; general staff rounds, Wednesday, 10 a. m. to 12 m.; amphitheater clinics, Saturday, 10 a. m. to 11 a. m.; clinical pathological conference, Saturday, 11 a. m. to 12m.; out-patient clinics, daily; examination of apparently healthy adults, Thursday, 10 a.m. to 4 p.m.

Surgery—Operative, phone supervisor operating-room; ward rounds, Thursday, 10:30 a. m. to 12 m.; amphitheater clinics, Saturday, 9 a. m. to 10 a. m.; clinical pathological conference, Saturday, 11 a. m. to 12 m.; out-patient clinics, daily.

Pediatrics — Ward rounds, daily, 9 a. m. to 10 a. m.; general staff rounds, Friday, 9:30 a. m. to 11:30 a. m.; out-patient clinics, daily, mornings; asthma clinics, Monday, Wednesday and Friday afternoons; examination of apparently well babies, Wednesday, 2 p. m. to 4 p. m.

Obstetrics and Gynecology—Operative, phone supervisor operating-room; ward rounds, Monday, 9 a. m. to 10 a. m.; Friday, 9 a. m. to 10 a. m.

College of Medical Evangelists, Los Angeles
(Clinics at Los Angeles General Hospital)

Surgery—Monday, 8:30 a. m. to 9:45 a. m.; Tuesday, 8:30 a. m. to 9:45 a. m.; Friday, 8:30 a. m. to 11:15 a. m.

Medicine — Monday, 8:30 a. m. to 11:15 a. m.; Tuesday, 8:30 a. m. to 9:45 a. m.; Wednesday, 8:30 a. m. to 9:45 a. m.; Thursday, 8:30 a. m. to 12:30 m.

Conference—Friday, 8:30 a. m. to 9:45 a. m.

Pediatrics — Monday, 8:30 a. m. to 9:45 a. m.; Tuesday, 8:30 a. m. to 9:45 a. m.; Wednesday, 8:30 a. m. to 9:45 a. m.; Thursday, 8:30 a. m. to 11:15 a. m.

Obstetrics — Monday, 9:45 a. m. to 11:15 a. m.; Friday, 9:45 a. m. to 11:15 a. m.

Nervous and Mental—Tuesday, 8:30 a. m. to 11:15 a. m.

Tuberculosis—Friday, 9:45 a. m. to 11:15 a. m.

(Clinics at White Memorial Hospital, Los Angeles)

Surgery:	
Clinics	Monday, 8 a. m. to 12 m.
Clinical lecture	Monday, 11:30 a. m. to 12:30 p. m.
Tonsillectomy	Sunday, 8 a. m. to 12 m.
	Tuesday, 8 a. m. to 12 m.

University of California, Los Angeles

The Los Angeles Medical Department of the Uni-

versity of California extends the courtesy of its clinics, which begin daily at 12 noon, for a period of three days. Physicians desiring such courtesy are given, on request, cards of admission by the superintendent of the dispensary.

Accredited Hospitals

The following accredited hospitals receive visiting physicians at operations, and furnish telephonic schedules of the day's work upon request:

Livermore—The Livermore Sanitarium.

Los Angeles—California Lutheran Hospital, Children's Hospital, Los Angeles County Hospital, St. Vincent's Hospital.

Oakland—Samuel Merritt Hospital.

San Diego—St. Joseph's Hospital.

San Francisco—Children's Hospital, French Hospital, Mary's Help Hospital, Mount Zion Hospital, St. Luke's Hospital, Southern Pacific General Hospital.

San Leandro—Alameda County Hospital.

MORE ABOUT THE FAMILY PHYSICIAN

In a consideration of the general practitioner it will be necessary to discuss the opportunities which he enjoys, and the problems and difficulties which beset him. In their work, not all general practitioners are resourceful and sure of themselves. This fault is due in some instances to inadequate early training, but in a majority of men it is due to laziness and failure to take advantage of the opportunities afforded all physicians. From the time of his graduation until he retires from work, the whole professional life of the physician affords opportunities to study morbid processes as evidenced by anatomic changes and altered function and so to manage and treat the patient that partial or complete restoration occurs—dependent, in part, on the nature of the malady. The physician who makes all possible use of his daily clinical opportunities learns something new and useful every remaining day of his professional life.

Membership in and active participation in the work of the county medical society is of great educational benefit to the physician. It affords personal contact with fellow-practitioners in the courteous discussion of medical subjects and professional problems, promotes mutual respect and good-will, and is a potent factor conducive to increased self-respect and self-reliance on the one hand, and to a decrease in the size of the hat, if imaginary megalocephaly makes one a nuisance to his fellows.

With due regard for the value and need of all the splendid ultrascientific laboratory and instrumental methods of physical and functional diagnosis in investigatory medical work, they are needed in the routine clinical care of not to exceed 20 per cent of all the patients of any urban or rural community. Unfortunately, many lay people have been made to believe and apparently a large number of physicians think that the routine application of the ultra-scientific methods of diagnosis is necessary in the majority of cases. The fact is that the diagnosis can be made in fully 80 per cent of all cases by a resourceful general practitioner who will efficiently use his brain, special senses, hands and an always available simple and inexpensive laboratory and instrumental equipment.

A majority of practitioners do not make written records of their patients: these are absolutely essential to accuracy in diagnosis and efficiency in practice. To obtain an efficient history and make a record require time. Many practitioners have told me they could not afford the time to do this. My own experience justifies the statement that this is a mistake. Accurately written records, brief though they be, properly filed to be available for future reference, are time-savers of the future weeks, months, and years.

The conscientious practitioner will make a careful, general physical examination of practically all patients who seek his services. An occasional patient with a slight ailment, and especially those with slight injuries or lesions requiring surgical treatment, are exceptions. But with many patients the present complaint is often an expression of an older morbid process which has been disregarded by the patient or overlooked by the physician. Daily practice in technic and judgment is the program which every physician must follow to become a skilled diagnostician. The practitioner can gain much by observing others at work in organized clinics or by taking post-graduate courses in diagnosis, when these are available; but the efficiency of the practitioner in diagnosis is mainly dependent on his own industry and determination to make the most of his own clinical opportunities.

There is a growing custom in urban practice for general practitioners to have the routine laboratory examinations, such as urinalysis, blood estimations and other simple tests made and the results interpreted for them at the numerous available commercial laboratories. In my opinion, this is a great fault in practice; it would be quite as rational for the practitioner to depend on available organized clinics for the physical examinations and diagnosis of patients.

But whether one is a practitioner in the city or in the country, the economic conditions peculiar to each can be greatly improved by one's own efforts. The fundamental principle which each practitioner must adopt to overcome his economic embarrassment is to improve himself professionally. To accomplish this, I believe he must steadily follow the methods of clinical practice and other self-educational opportunities which I have outlined. I sincerely believe that, if he will do this, he will attract to himself a large number of patients, will receive more adequate financial reward, and will find real enjoyment in his work.

Many years ago an observing philosopher said: "The pathway to the door of the qualified man, desirous of giving honest, efficient service to the public, is worn smooth by the passage of many feet."

I believe that the preservation of the general practitioner, as the most important factor in the field of practice, is dependent, chiefly on himself. He must keep abreast of the advance of modern medical knowledge and practice, chiefly by his own efforts. If he strives to improve and help himself he will be successful; will justify his importance in the medical field, and will attract the ill and injured to his door because of his professional individual superiority as compared with men in narrower fields of practice, alone or in public or private groups.

The American family home has been and must continue to be the very foundation of this nation. Bolshevistic socialism, anarchy, and public discord cannot exist in a nation of family homes. The integrity and perpetuation of this nation is dependent chiefly on the maintenance of family life; and the continuance of the family home demands the preservation of the family physician, the general practitioner.—Frank Billings, M. D., Journal A. M. A.

The future of human civilization depends primarily upon the rearing of its children. These children will require more and more education to fit into this gradually enlarging scheme, but above all they will need health education so that they can gain personal comfort, release from suffering, and a longer period of productive life after the necessary prolonged periods required for adequate mental training. It will take at least another generation before a majority of us in any land can even think biologically. We cannot hope to control many eugenic factors, so that our efforts must be largely directed to changing the environment of the human animal.—Ray Lyman Wilbur, M. D.

WHY DOCTORS BUY WORTHLESS AND FRAUDULENT SECURITIES

By SAMUEL O. RICE
(Educational Director, Investment Bankers Association of America.)

Physicians who number bondmen, investment bankers, among their patients frequently complain that bondmen squander their health.

"The heads of three bondhouses," my family doctor said to me the other day, "are patients of mine, they and several subordinate officers of other houses, and I'll be hanged if they aren't more careless with their health than is all the rest of my practice put together. They'll work like demons for months at a time and then try to make up for the loss of daily exercise and common-sense routine by trying to crowd a year's recreation into a few weeks. They'll eat, and drink, too, a lot of stuff that's bad enough at home, but is doubly damaging when they take frequent business trips, with irregular hours, heterogeneous food, and the unavoidable strain of an exacting business. They are the worst spendthrifts of health that I know among intelligent men."

"At least they are not as bad as doctors," I replied to my friend's amazement. "When they need medical service you've got to admit they don't go to quacks for it. They go to the reputable profession and to recognized specialists, don't they?"

"What has that got to do with it?" the doctor asked. "Physicians can't avoid irregular hours, but they're not—"

"The argument is," I interrupted, "on the use of common sense, isn't it? You say that bondmen don't use common sense about health. But as lax as they are in that, they are not as lavish in squandering health as physicians are in squandering money in so-called investments. Bondmen at least exercise common sense enough to realize that it requires a doctor to exercise medical judgment for them. How many physicians realize that it requires a 'doctor' of investments to select investment securities dependably? Ever hear of an investment banker being swindled by a quack practitioner? How often are physicians swindled by quack investment schemes?

"There are just two reasons why doctors, as a class, are notable for buying worthless securities. One of them is their failure to realize that, in seeking good, sound investments, you have to do exactly the same thing you do in seeking health—consult an honest, competent practitioner."

"What's the other reason why we buy worthless securities?" my friend asked with a smile. "Because doctors are not business men?"

"That's the reason usually given, but I don't believe there's anything to it. The second reason is too much optimism."

"There isn't one of you who doesn't believe that next year's practice is going to be a whole lot more remunerative than this year's. Your first years of practice, when you started with nothing and gradually built up your income, taught you that. It's firmly fixed, perhaps subconsciously, in every doctor's mind. It's a life thought-habit of the profession, besides being a somewhat common human trait."

"Well, if things are going to be better next year, I'll just take a few hundred dollars of the stock of this patent electrical device or in that new serum outfit, you argue. Thousands of little oil and mining companies have been organized in the last few years among little groups of friends in every town, city and hamlet in the United States, and have blown up after losing the money put into them. I'll wager that in every such little venture 90 per cent of them have had one or more physicians as stockholders. As a profession, you are so confoundedly optimistic you let your optimism run away with your better judgment, and you accumulate a lot of nondescript interests in a number of things you know nothing about and that have little or no value when your widow tries to realize on them."

"Yes, I guess some of that is possibly true," my friend admitted.

"True, of course it's true. Six months ago I had a little ready money and I asked you to send me your bill. I telephoned you twice. I got that bill last week, six months after I had put my little ready money into some sound investments selected by an investment specialist and not by inexperienced friends or an easy-talking promoter. Now, when I'm shy of cash, you optimistically send me a bill. I'll bet you $4 you are going to buy a new car. You are careless about collections, partly because it is in the code of your profession not to be mean and grasping. I honor you for that, but your eternal optimism is also a part cause. Oh, you say, I'll get more money next month; if not from Jones, from Smith. And you base your investments on the same kind of careless optimism."

"I'm serious in this, Roy. You wouldn't have a bit of sympathy for me if I disregarded the common sense that the medical profession has patiently drummed into the public for years, the fact that the public must consult reputable, competent medical advisors. You'd have a silent contempt for me if I let some quack or gaudy fake practice in my family, or if I answered a cure-all medical advertisement.

"The so-called intelligent public has learned its lesson in medicine, that of consulting reputable practitioners. It is just as important that the medical public learn the same lesson as applied to investing their money. You nor no other physician can judge an investment security dependably, if you continue attending to your legitimate vocation. Even if you had time to do it, very frequently you haven't the facilities to determine the worth of a security. Investment banking is such a highly specialized calling that I doubt if any man has the ability to perform the investment banker's work without adequate training in the work.

"Physicians should be the first persons in the world to recognize this fact, but, strange to say, many of them do not. As a consequence, they are notably heavy losers in bad investments And the cure for this bad investment condition is the same as in a human pathological condition—consult the reputable specialist who is competent to treat the case."

LECTURE FOUNDATION IN PREVENTIVE DENTISTRY

The inaugural lectures under the Carnegie Grant will be given in Los Angeles on the evenings of January 3 and 4, at the College of Dentistry, University of Southern California, and will be open to the professions only. In San Francisco, the professional lecture will be given on January 7, at the College of Dentistry, University of California, at 3 p. m., and the public lecture in the Italian room, St. Francis Hotel, on the same day, at 8:15 p. m. The public lecture will be repeated in Wheeler Auditorium on the Berkeley campus, on Tuesday evening, December 8, at 8:15 p. m.

The title of the professional lecture will be "Progress and Outlook for the Prevention of Dental Disease." The title of the public lecture will be "Dentistry and Health."

This course of lectures will be delivered by Arthur D. Black, Dean of Northwestern University Dental School, Chicago, Ill. Black is widely known, internationally as well as nationally, and is a leader in this great movement in America.

Our civilization cannot survive materially unless it be redeemed spiritually. It can be saved only by becoming permeated with the spirit of Christ and being made free and happy by the practices which spring out of that spirit. Only thus can discontent be driven out and all the shadows lifted from the road ahead.—Woodrow Wilson.

MEDICAL ECONOMICS

Why not let our advertisers help you?

New Canyon Sanatorium Annex—This issue of the Journal contains a page advertisement for the new Canyon Sanatorium Annex for the treatment of of tuberculosis, at a rate of $15 a week for patients unable to pay the regular charges. Increasing facilities for the treatment of tuberculosis in sanatoriums at rates that can be afforded by people of ordinary incomes will do much in the campaign against this insidious disease. Doctor Ralph B. Scheier, medical director, states that the present unit is only a beginning and that others will be added as the demand warrants, until there is accommodation for 100 patients. Continuing in his discussion of this project, the medical director says:

"Cases of selected type only will be admitted to the annex. A rate of $15 per week will be charged. This rate includes medical attention, nursing supervision, bed and board. In order to make possible a rate which is less than the cost of maintenance a plan has been instituted by which the deficit will be met by the profit which accrues from Canyon Sanatorium. In bringing this venture before you we feel that a big sociological problem is being solved, and trust that you will give this project the editorial comment which it deserves.

"This project has been made possible through the support of the medical profession. Seven years ago Canyon Sanatorium started with five beds. It might be interesting for you to know that our success has in a large measure been made possible by bringing Canyon Sanatorium to the attention of the medical profession by advertising the sanatorium in the California State Journal of Medicine."

Medical and Scientific Reference Books—We are pleased to call attention to an advertisement in this issue of the Journal showing the establishment in San Francisco of a firm interested exclusively in promoting the sale of medical and scientific literature. Large Eastern cities have for many years had numbers of stores of this kind. San Francisco has needed a movement of this kind for a long time, and it is a pleasure to see that Mr. Stacey has taken a step in the right direction.

The Radiodor—Attention of physicians and hospitals is called to the advertisement of the Radiodor now being carried in the Journal. This electric vaporizer was shown at the conference of the hospitals of California held in San Francisco recently and at the American Medical Association annual session, and is being used by many hospitals and physicians. The Journal would be glad to have comment on the use of this instrument from physicians and hospitals.

The More Practical Functional Tests of the Liver—Max Einhorn, New York (Journal A. M. A., Nov. 3, 1923), reviews the various tests proposed for estimating liver function such as the general activity of the liver, which can be demonstrated by the color reaction which is produced by the liver in the bile after the entrance of various substances into its circulation. The permeability of the liver can be studied by the method devised by Abel and Rowntree and later on improved by Aaron, Beck and Schneider, by injecting tetrachlorphenolphthalein. The faculty of the liver of utilizing the biliary pigment, when the latter in returning from the intestine by the portal system, has reached the former organ, is best ascertained by testing the urine for urobilinogen. The albumose-storing power of the liver is determined by Widal's test based on the well-known fact that after the ingestion of food there is usually an increase of leukocytes present in the blood. This test Einhorn says does not at present appear to us that it will prove of much assistance. The storing faculty of the liver for sugars and fats is best investigated by the sugar tolerance tests and by the lipase content of the blood. The presence of galactose can be elicited by Nylander's test, or by the usual Fehling or Benedict test for sugar. The fat-storing ability of the liver may be tested by examining the blood for its lipase content. While all these functional tests give hints as to the workings of the liver or its failure to work, these alone will never enable one to make a diagnosis of any special disease of this organ.

The Blight of Standardization—In discussing this subject, President Eliot said: "A new blight is afflicting education and industries in the United States. . . . Its name is standardization. . . . It is obvious standardization has become a dangerous adversary of progress in both education and industry. The ideal in education is to develop the utmost possible variety of individual attainment and group attainment; just as the true goal of democracy is the free development of the utmost variety of capacity in the individual citizen. . . . The true educational goal is the utmost development of the individual's capacity or power, not in childhood and adolescence alone, but all through life. Fixed standards in labor, in study, in modes of family life or of community life, are downright enemies of progress for the body, mind, and soul of man."

DEATHS

Barber, David Cassat. Died at Blythe, December 2, 1923, age 61. Graduate of Miami Medical College, Cincinati, 1886. Licensed in California, 1886. He was a member of the Los Angeles County Medical Association, the California Medical Association and a fellow of the American Medical Association.

Callanan, Joseph Ignatius. Died at San Francisco, November 20, 1923, age 34. Graduate of the Stanford University School of Medicine, San Francisco, 1916. He was a member of the San Francisco County Medical Society, the California Medical Association and a fellow of the American Medical Association.

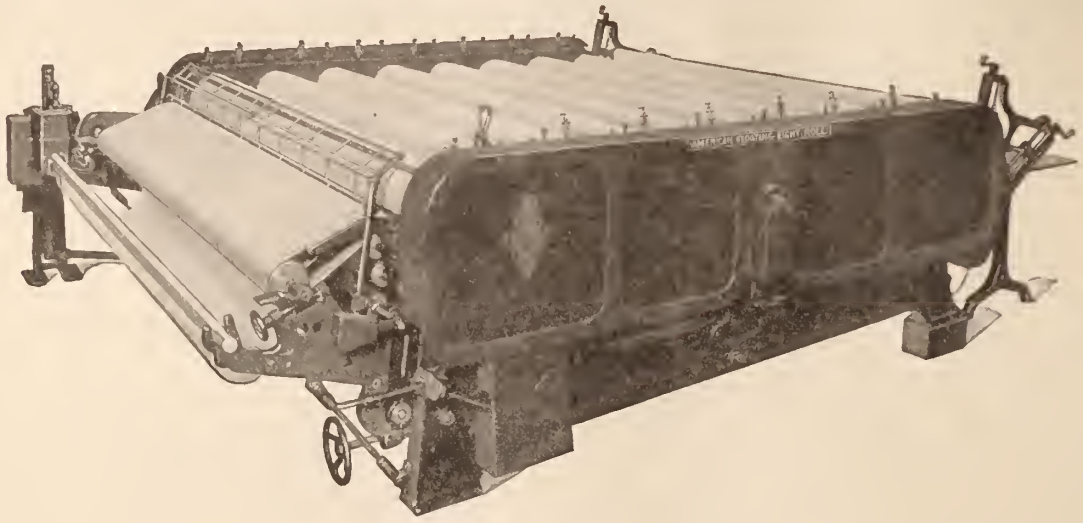
Edwards, Samuel G. Died at Los Angeles, November 11, 1923, age 55. Graduate of the Medical College of Ohio, Cincinnati, 1893. Licensed in California, 1900. He was a member of the Los Angeles County Medical Association, the California Medical Association and a fellow of the American Medical Association.

Fehlen, August. Died at San Francisco, November 13, 1923, age 63. Graduate of Cooper Medical College, San Francisco, 1894. He was a member of the San Francisco County Medical Society, the California Medical Association and the American Medical Association.

Friedman, William Lloyd. Died at Oakland, December 1, 1923, age 51. Graduate of the Baltimore Medical College, 1897. Licensed in California, 1898. He was a member of the Alameda County Medical Society, the California Medical Association and a fellow of the American Medical Association.

Owens, Frederick Francis. Died at Ely, Nevada, November 23, 1923, age 51. Graduate of Columbia University College of Physicians and Surgeons, New York, 1896. Licensed in Nevada, 1901. He was a member of the Nevada State Medical Association and the American Medical Association.

Thomas, Clifton A. Died at Albany, Oregon, October 10, 1923. Graduate of the Kansas City Medical College, Missouri, 1905. He was formerly a member of the San Francisco County Medical Society, the California Medical Association and the American Medical Association.



It Is Cutting Ironing Costs in California

The American Floating Roll Ironer—*a machine that irons body clothes as well as flat work*

SEVERAL California institutions are effecting really notable reductions in ironing costs through the use of a new laundry machine which irons body clothes as well as flat work, with flat-work ironer speed and economy.

This machine is The American "Floating Roll" Ironer, which is pictured above. Among well known institutions on the Pacific Coast which use and endorse it are:

The Napa State Hospital, Imola: a 6-Roll.
Preston School of Industry, Iona: a 4-Roll.
St. Vincent School, Santa Barbara: a 2-Roll.
House of the Good Shepherd, Seattle: a 6-Roll.

You will find that a "Floating Roll" ironer in your laundry will give you much more work at a far lower cost, and at the same time it will make the question of laundry labor less of a problem.

Full particulars gladly will be sent on request.

The American Laundry Machinery Company

Norwood Station, Cincinnati, Ohio

Los Angeles San Francisco Seattle

Back to the Parent—If we have one burning faith among us it is that children belong in homes of their own with other children and the companionship of their parents. The failure of society in general is measured chiefly by inability to save the parents and so permit them to live that they can provide homes worthy of the name, where health will come as a matter of course rather than as an accidental blessing. It is a part of the philosophy, the tradition, the instinct, the religion of all of us that we owe the child not only shelter and food and clothing, affection, an education and training for work, but protection and guidance in health. Organization of services for children en masse, and provision through private and public institutions and agencies for health teaching and supervision will not carry the load which must be placed directly where it belongs—upon the family household.—Haven Emerson, The Survey.

CALIFORNIA STATE JOURNAL OF MEDICINE

1924 Meeting of the California Medical Association

THE 1924 MEETING of the California Medical Association will be held May 12-15, at the Biltmore Hotel, Los Angeles. The program is rapidly nearing completion and promises to be an unusually good one. All members who desire to take part in any phase of the program should communicate promptly with the secretaries of their sections, listed in the back of this and every number of the Journal. In accordance with the announcement made in the January number of the Journal, the program will be closed February 15, and papers cannot be accepted after that date.

· FEBRUARY · 1924 ·
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SUPERINTENDENT OF PUBLICATIONS - - - - - - - W. H. BARRY

February Contents

Contributors, subscribers and readers will find Important Information on Page 42 of Advertising Section

LAS ENCINAS

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Fracture through the body of scapula with overriding.

ANNOUNCEMENT

In response to the oft-repeated suggestion from our friends, we are glad to announce the opening of our X-Ray Department which is operated in conjunction with our Clinical Laboratory.

All technical features of this department are in charge of A. S. Dominguez, Ph. D., who has had many years' experience in this work in continental clinics and several local hospitals. Our equipment comprises a powerful transformer such as designed for the Bellevue Hospital, New York, with complete facilities to do all roentgenological procedures, such as radiography of bones and joints, gastro-intestinal and pulmonary studies by fluoroscopy and roentgenograms, sinus work and treatment of surface conditions, as skin carcinoma, acne sycosis, etc.

Our experienced staff will give special attention to the interpretation of findings and their application in diagnosis and treatment, thus assuring you a valuable and dependable service.

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It will be our aim to give the profession the same dependable radiological service that they now receive from our clinical laboratory, both in promptness and efficiency.

We invite consultation and correspondence.

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Pacific Wassermann Laboratories

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ZERA E. BOLIN, M. D., MEDICAL DIRECTOR

Importance of Complete Examination of the Cerebrospinal Fluid—The most important single sign of cord compression, and by all odds the most reliable, in the opinion of William Jason Mixter, Boston (Journal A. M. A., December 29, 1923), is that evidence which is obtained from the cerebrospinal fluid. At the Massachusetts General Hospital every patient suspected of cord tumor is prepared for puncture of the cisterna magna, as well as for lumbar puncture, and lumbar puncture is performed. Pressure readings are made, pulse and respiratory oscillations are noted, and the patient is directed to cough and to draw a deep breath. Next, the jugular veins are compressed, and finally a small amount (usually 5 cc.) of fluid is withdrawn. Notes are taken on the behavior of the fluid in the manometer during all these procedures. A portion of the fluid withdrawn is tested with alcohol for excess of protein. If the information obtained in these various ways gives definite evidence of block, puncture of the cisterna magna is not done. If there is absolutely no evidence of block, either chemical or dynamic, puncture of the cisterna magna is not done. If, however, there is the suspicion of block, either chemical or dynamic, the cisterna magna is punctured, combined readings are made, and fluid is drawn from both needles for quantitative examination of protein and for Wassermann examination and study of the cells. If tumor of the cauda equina is suspected, two lumbar punctures, one usually between the twelfth dorsal and first lumbar vertebrae and the other between the fourth and fifth lumbar vertebrae are performed. Occasionally, sacral puncture with injection of physiologic sodium chlorid solution into the epidural space, with observation of dynamic changes in the lower manometer, is also deemed advisable.

Colfax Hospital for the Tuberculous

Convalescents with normal temperature taking the cure. A November Morning.

SITUATED in the foothills of the Sierra Nevada Mountains at Colfax, California, one hundred forty-four miles east of San Francisco on the Ogden route of the Southern Pacific Railway. Operated in conjunction with the Cottage Colony of the Colfax School for the Tuberculous and intended for the accommodation of those patients who are unable to bring attendants and live in the Colony. Patients are given daily medical supervision and enjoy the advantages of all approved modern methods of treatment. Terms reasonable. For further particulars apply to

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Colfax, California

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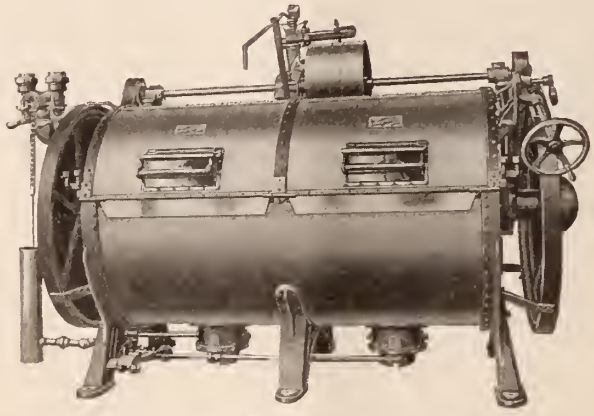

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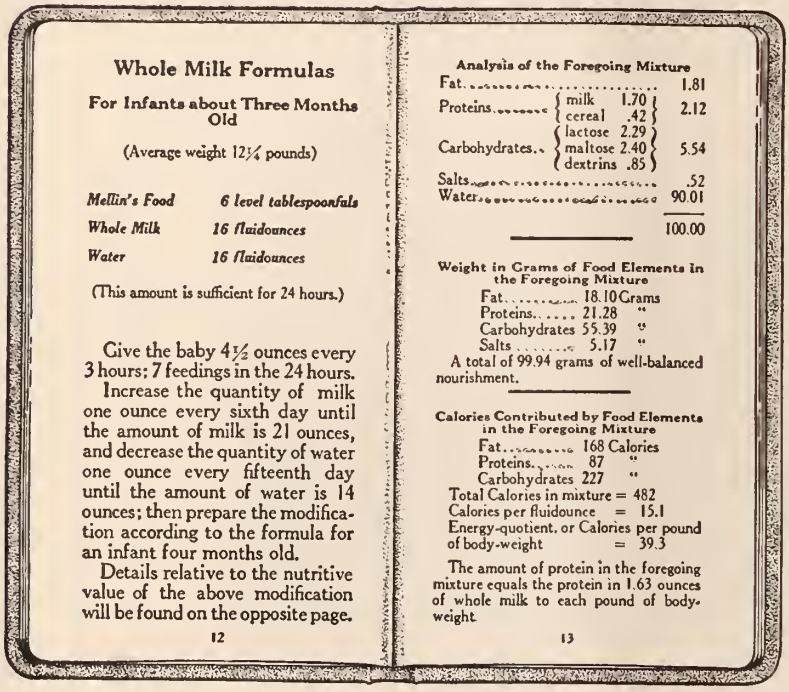
"Formulas for Infant Feeding"

New Edition



Whole Milk Formulas

For Infants about Three Months Old

(Average weight 12¼ pounds)

Mellin's Food	*6 level tablespoonfuls*
Whole Milk	*16 fluidounces*
Water	*16 fluidounces*

(This amount is sufficient for 24 hours.)

Give the baby 4½ ounces every 3 hours; 7 feedings in the 24 hours.

Increase the quantity of milk one ounce every sixth day until the amount of milk is 21 ounces, and decrease the quantity of water one ounce every fifteenth day until the amount of water is 14 ounces; then prepare the modification according to the formula for an infant four months old.

Details relative to the nutritive value of the above modification will be found on the opposite page.

12

Analysis of the Foregoing Mixture

Fat			1.81
Proteins	milk	1.70	2.12
	cereal	.42	
Carbohydrates	lactose	2.29	5.54
	maltose	2.40	
	dextrins	.85	
Salts			.52
Water			90.01
			100.00

Weight in Grams of Food Elements in the Foregoing Mixture

Fat	18.10 Grams
Proteins	21.28 "
Carbohydrates	55.39 "
Salts	5.17 "

A total of 99.94 grams of well-balanced nourishment.

Calories Contributed by Food Elements in the Foregoing Mixture

Fat	168 Calories
Proteins	87 "
Carbohydrates	227 "
Total Calories in mixture	= 482
Calories per fluidounce	= 15.1
Energy-quotient, or Calories per pound of body-weight	= 39.3

The amount of protein in the foregoing mixture equals the protein in 1.63 ounces of whole milk to each pound of body-weight.

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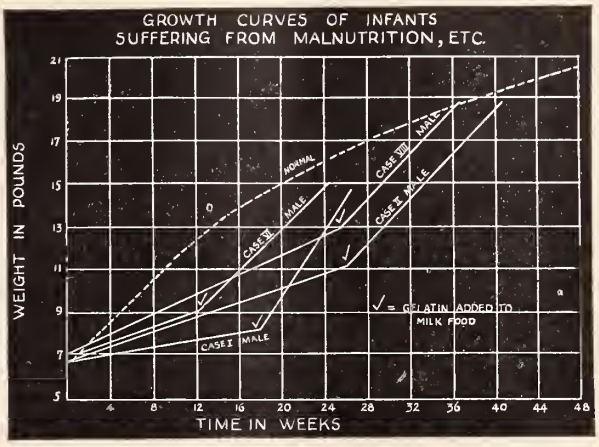

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ORIGINAL ARTICLES

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THE PRINCIPLE AND TECHNIC OF DRAINAGE IN THE SURGERY OF THE GALL-BLADDER AND THE BILE TRACT *

By ANDREW STEWART LOBINGIER, M. D.,
Los Angeles

Our present understanding of the relationship between infection of the gall-bladder and infection of the liver and its ducts, due to a better interpretation of their related pathology, will in future greatly modify the surgery of the gall-bladder.

For many years there has been a feeling among clinical observers that the surgery being done for conditions commonly found in the gall-bladder was only partially meeting the requirements in the case; that gall-stones were largely an incident in cholecystitis and that the infection and tissue changes found in the wall of the gall-bladder would be found in greater degree and significance in the liver itself. It did not seem reasonable that inflammatory changes could be present in the wall of the gall-bladder without the hepatic ducts sharing in these inflammatory changes. Riedel, as far back as 1888, described a tongue-like process of the right lobe of the liver, which since then has been known as Riedel's lobe. It was associated with cholecystitis and was thought to be due to an enlargement of the liver. Naunyn, in 1892, quotes Charcot as noting the enlargement of the liver in gall-stones. Langenbach was of the opinion that this enlargement of the liver was only present with obstruction of the choledochus, but Fink believed that in every case of infection of the biliary tract, the liver would be found to be enlarged. Mayo-Robson found the liver enlarged in the later stages of infective cholangitis and believed this condition might be complicated with diffuse hepatitis and cholecystitis. Quincke considers an enlarged liver a common attendant of cholelithiasis, and Grube and Graff found hepatitis almost invariably associated with cholecystitis and gall-stones.

All of these clinical observations were made of the living pathology by men of the widest experience in diseases of the liver and gall tract. The significance of these observations has been so suggestive that many of us have been able to confirm these opinions in our own experience. But there has remained a confused state of mind as to the channels through which infection was conveyed and precisely what changes occurred in the histology of the liver when it became infected. Twenty-five years ago Cushing conducted a series of experiments to discover the channel through which infection occurred in the gall-bladder in enteric fever. Since that time a large amount of experimental work has been directed toward determining whether the infection was by extension along the mucous lining of the intestine upward into the gall-ducts and gall-bladder or was from clumps of bacteria being swept through the veins or lymph channels from a distant focus of infection into the wall of the gall-bladder and interlobular spaces of the liver. J. Koch found in the submucous reticulum of the gall-bladder of a man who died of typhoid clumps of bacilli, which stained like the Eberth bacillus and which he concluded was the bacillus typhosus. No bacteria were found in the lumen of the gall-bladder, and Koch concluded that the cholecystitis of enteric fever was due to haematogenous infection, and this embolus was deposited in the submucous area of the gall-bladder. Chiarolanza partly confirmed Koch's conclusions. Experimental work has been done by Chiari, Letienne, Girodi, and Pawlowsky on the entrance of various bacilli to the bile tract, all of them with varying conclusions, but most of them holding the belief that this transmission is embolic. Rosenow, in 1916, conducted a series of interesting experimental studies on the transmission of streptococcus infection. The study we are particularly interested in here was on the "Etiology of Cholecystitis and Gall-Stones and Their Production by Intravenous In-

* Presented to the Section on Surgery at the Fifty-second Annual Session of the California Medical Association.

jection of Bacteria." His conclusion was that the wall of the gall-bladder was infected haematogenously. But none of these studies conclusively determined what part the liver shared in the infection of the bile tract.

In December, 1917, Evarts A. Graham reported a series of experimental studies before the Chicago Surgical Society on "Hepatitis: A Constant Accompaniment of Cholecystitis." This proved to be the beginning of a systematic study, later to be joined in collaboration by Peterman and Priest in an experimental contribution on "The Association of Hepatitis With Experimental Cholecystitis and Its Bearing on the Pathogenesis of Cholecystitis in the Human." A still later contribution by Peterman of experimental studies on "Cholecystitis and Its Complications" constitutes altogether the most conclusive evidence yet offered on this subject. We may only summarize here the conclusions of these investigators.

Graham's conclusions are as follows: "In 30 cases of biliary tract disease which have come to operation, a distinct enlargement of the liver has been present in 26, or 87 per cent. In the remaining four cases, there has been definite gross evidence of previous or existing pathological change in the liver, other than an enlargement. During the course of the operation, small pieces of liver tissue have been removed for bacteriological and microscopical study. The result of these examinations may be epitomized as follows:

1. In cases of acute or sub-acute cholecystitis there has constantly been found in the liver microscopical evidence of inflammation.

2. The hepatic inflammation is characterized by leucocytic infiltration of the interlobular or periportal sheaths; in the more severe types of inflammation, the infiltration may involve also the parenchyma at the peripheries of the lobules and be associated with more or less oedema, slight necrosis, and moderate fat infiltration.

3. Cultures from both the liver tissue and from the bile in the gall-bladder have usually revealed the same organism from each of the two different sources.

4. In chronic cholecystitis the liver microscopically often presents a picture practically identical with that of an early case of cirrhosis.

5. The inflammatory reaction appears to be chiefly a pericholangitis.

6. The gross enlargement of the liver is probably usually due to oedema. The enlarged livers in this series have always diminished markedly or returned to normal size after appropriate surgical treatment. Marked cirrhotic changes have been shown to occur in the liver, even when there has never been a stasis of bile."

The importance of these findings in relation to the pathogenesis of cirrhosis of the liver in general is discussed.

From the standpoint of the diagnosis of obscure or doubtful cases of biliary tract disease, the presence of an enlarged liver is of the greatest importance.

Inspired by the study by Sudler of the lymphatic distribution to the gall-bladder, Peterman shows that, not only is the infection of the gall-bladder haematogenous through the portal system in which the liver coincidentally shares, but that this infection may occur through the lymph vessels as well, and that we may have a lymphogenous as well as a haematogenous origin of cholecystitis and cholangitis. As a prelude to his own experimental studies, he cites a voluminous bibliography covering more than 30 years of clinical and experimental observation on the infection of the gall-bladder, bile-ducts, and liver. In this latest contribution he divides the study into six parts: "Part 1 consists of a review of the literature on experimental cholecystitis; in Part 2 is submitted the experimentation directly concerned with establishment of experimental cholecystitis and its relation to hepatitis; Part 3 contains a consideration of cholecystitis in its relation to appendicitis; Part 4 consists of a review of pancreatitis and its relation to cholecystitis, with a report of investigation; in Part 5 a survey of clinical cases is offered, and Part 6 is a general discussion."

A resume of the literature on experimental cholecystitis shows:

"1. Intravenous injection of organisms if in sufficient amount is always followed by the appearance of these organisms in the bile. The organisms are probably carried to the liver in the blood stream, excreted in the bile and carried at the same time, among other places, into the wall of the gall-bladder by the blood stream and lymphatics.

2. The intravenous injection of virulent organisms in sufficient amount produces a cholecystitis in a high percentage of cases.

3. The organisms after intravenous injection may be demonstrated in the bile one-half to two minutes after injection, and may be found in the gall-bladder after the blood has become sterile.

4. Simple injection of organisms, even in large amounts into the lumen of a normal gall-bladder, does not usually produce a cholecystitis.

5. Injection of virulent organisms into the lumen of a gall-bladder in sufficient amounts after ligation of the cystic duct and vessels regularly produces a cholecystitis.

6. Although cholecystitis may be due to a haematogenous infection, it is not infrequently lymphogenous in origin.

Cholecystitis is constantly accompanied by hepatitis. The character of the lesion in the liver is determined to a certain extent by the origin and course of the disease in the gall-bladder."

We cannot include all the divisions of Peterman's last contribution in this review, but the Part 3 which discusses appendicitis and peptic ulcer associated with cholecystitis is of especial interest to us in this discussion.

For many years the clinical relationship between appendicitis, cholecystitis and gastric and duodenal ulcer has been noted by surgeons.

"In 1901, Adrian asserted his belief that appendicitis was a haematogenous infection. In the 1904 Mount Sinai Hospital Report in seven cases of ulcer operated, three showed foci of infection in the area drained by the portal vein. Ochsner re-

ported, in 1906, four cases of pyloric ulcer, two of which were associated with infection of the bile tract, two with appendicitis, one case having both lesions. There were 13 cases of bile tract infection, of which four had pyloric ulcer and seven appendicitis. Deaver in 1907 reported 36 cases of ulcer, 15 of which gave a history of typhoid, bile tract infection, dysentery or appendicitis."

"In 1908 Moynihan reported 205 cases of ulcer, 16 of which required surgery in the bile tract. The appendix was not examined. In his work on Duodenal Ulcer, he reported 62 cases of ulcer, 25 of which had chronic appendicitis, one required biliary drainage, and a later study showed in 14 cases of ulcer 12 chronically inflamed appendices, the other two patients were too ill to permit detailed study. Moynihan, in 322 ulcers operated upon in 1910-11, found 111 chronically inflamed appendices, and asserted it as his belief the appendix should be removed in 90 per cent of the cases of diseases of the bile tract and of peptic ulcer."

Peterman gives voluminous citations of the clinical reports and studies of numbers of other observers, including McCarthy and McGrath, Augustana Hospital report 1910-1911, Pilcher, Mitchell, and Rosenow, all of which show the close relationship between infection in the vermiform appendix and the bile tract, as well as ulcer of the stomach and duodenum, and quotes Deaver as presenting the modern and generally accepted dictum "that in case of gall-bladder infection whether there are calculi or not, operation should include removal of the appendix and the examination of other abdominal viscera for associated disease." After consideration of the close relationship through the lymphatic system between infective conditions in the appendix and bile tract with the pancreas, Peterman concludes that these infections, secondarily, of the pancreas are most commonly (30-Med. Record, p. 47, 1919) brought about through the lymph channels.

He concludes with the clinical and laboratory study of 130 cases of disease in the human gall-bladder in the surgical service of Barnes Hospital. These cases were unselected, and his "object in reviewing them and the sections was to study in detail the pathological findings in gall-bladder disease and its complications. . . . Thirty-three cases were critically analyzed and studied in greater detail, which included study of the gall-bladder wall and sections of the liver removed at operation. In seven other cases which came to autopsy, the liver was studied microscopically. . . . "

Cholelithiasis (with or without complications) as a pre-operative diagnosis was made 92 times, and stones were found in 79 cases. Cholecystitis, exclusive of stones, was diagnosed in 30 instances. . . . Twenty gall-bladders were reported not markedly abnormal. All, however, showed pathological changes on section. The liver was found involved in 82 cases. . . . "In 82 cases of liver involvement, 69 were enlarged or oedematous, 5 showed adhesions alone, and 8 were atrophic or scarred." . . . "The chief interest in the study of these cases was the frequency and the nature of hepatic involvement. . . . In a complete study of 33 cases the liver was found involved in every case. . . . In the acute cases there was a pericholangitis, at times a general hepatitis with infiltration of polymorphonuclear leucocytes in the interlobular spaces especially around the bile-ducts. . . . In the chronic cases there was observed an increase in connective tissue elements in the periportal or interlobular spaces with a moderate infiltration of mononuclear leucocytes."

This author's conclusion is that "cholecystitis probably begins in most instances as an infection within the wall of the gall-bladder, and doubtless is secondary to a hepatitis. This infection may be acquired from the appendix, intestines (typhoid, dysentery), or it may be secondary to any infectious focus within the body. The infection may then spread easily by the lymph stream to the wall of the gall-bladder and the complications then follow."

He quotes Mallory's studies of the liver in typhoid, and adds "the frequency of cholecystitis with and following typhoid is thus readily explained." So that with this overwhelming assembling of clinical and experimental evidence based upon exact microscopical study, one feels that this group of careful and conservative investigators is fully justified in the final conclusion that "the emphasis so commonly placed on the appearances and changes in the mucosa of the gall-bladder would seem to be misdirected."

It is obvious that these recent comprehensive clinical and experimental studies in the pathogenesis of infection of the liver and bile tract lead to one conclusion. This conclusion brings into sharp relief the fact that we have been dealing surgically with only a small part of the infected bile tract when we have removed the gall-bladder or stones from the gall-bladder and ducts. The greater, and in very many instances, the more important infected areas—the liver and the hepatic ducts—have received little or no attention. We are compelled then, by the logic of these findings, to take a new view of the pathology of the organs in the right hypochondrium and to consider surgical procedures which shall be more adequate in reaching this infection and overcoming it.

The pathology by which we have been governed in the choice of cholecystectomy or cholecystostomy has been found to have a far wider significance, and we shall discover in the principle of drainage the basic method of treatment.

John B. Murphy more than 20 years ago urged on a reluctant profession the merits of this treatment. In that day the bile itself was regarded as the principal carrier of the infection, and Murphy drained the bile through the gall-bladder from the hepatic ducts until repeated cultures showed it to be sterile. With the knowledge definitely determined that infection is haematogenous or lymphogenous primarily to the liver, and secondarily to the gall-bladder, ducts and bile, the principle of treatment by drainage is just as definitely determined for us. This does not mean that pericholecystitis with adhesions, cysticus and necrotic oedema shall not always require cholecystectomy. There is

no other procedure to be considered in those conditions; but in cholecystitis with or without stone, in cholangitis and hepatitis, in splanchnic paresis and a failing myocardium, which are the usual concomitants of this infection, some form of prolonged drainage, with a judicious use of chologogues, will very likely be the treatment of the future. Kehr has suggested drainage of the liver by placing a small tube in the common hepatic duct. It is by no means easy to do without leakage, and a tube retained sufficiently long to accomplish the desired result will almost invariably cause an ulcer and later a stricture in the duct. We have found in our experience, and recommend as more practicable and free from any reasonable objection, the removal of the major portion of the gall-bladder, leaving sufficient of its neck to tie in securely a small firm-walled drain in the cystic duct, maintaining this drain in place for a period of at least 20 days.

It may be necessary to continue the drainage for six weeks or two months, the governing factors being the chronic congestion and enlargement of the liver and the character and degree of bacterial infection of the bile. We would urge careful attention to the technical details of the method of drainage which, for the first time, we here recommend. The cystic artery should be ligated separately.

The gall-bladder is dissected away from the liver, clamped off, and cut an inch and a half from the common duct. If the mucosa strips easily, it is better to remove it down to the cystic duct. The drainage tube should be tied in with two purse-string ligatures of twenty-day chromic catgut, the end of the drain being one-half inch short of the common duct. The raw edge of the amputated neck may be covered in with omentum or the serous coat turned in as in cholecystostomy.

If the gall-bladder is acutely septic, a temporary Penrose drain, to be withdrawn after a few days, should be placed under the liver above the right kidney. If this technic is followed carefully there should never be leakage of bile or infection of the peritoneum.

This operation may be done rapidly and securely and is adapted to practically every form of infection of the gall tract. It disposes, without further argument, of the tiresome discussion of cholecystostomy and cholecystectomy, for it compasses the principle of both of these procedures. It *is* a cholecystectomy and it accomplishes all and more than the usual cholecystostomy does in drainage of the common and hepatic ducts. And best of all, it drains and reduces the infection in the liver and pancreas, the *raison d'etre* for practically all gall-bladder surgery. We commend this operation, therefore, with sincere conviction, because it is founded upon sound pathology and because we cannot escape the conclusion which the majority of clinical and experimental observers working in this field now confirm: that our hope of accomplishment in the future treatment of infection of the liver, pancreas, and bile tract, must lie in the rational application of *drainage*.

Merritt Building.

TUMORS OF THE TESTICLE*

WITH SPECIAL REFERENCE TO DIAGNOSIS AND TREATMENT

By FRANK HINMAN, M. D.; ADOLPH A. KUTZMANN, M. D., and THOS. E. GIBSON, M. D.
(From the Department of Urology, University of California Medical School.)

The difference between the two operations of simple castration and castration with radical resection of the preaortic lymph zones for malignant tumors of the testicle is so great that reasons for ever attempting the latter must be fundamentally sound. The principle that any surgical attack of cancer anywhere in the body must be whole-hearted or not at all is of universal belief, and justification of such a radical principle has arisen through the hard-earned improvements in the results of the treatment of cancer in general. A life saved now and then from an otherwise hopeless and miserable end encourages the patient and surgeon to take great risks. The advent of the Roentgen ray and radium therapy somewhat undermines this surgical principle, but medical men should carefully consider facts and conclusions. A careful and truthful scrutiny of results by all methods is essential, and a comparison from time to time of such reviews establishes the best and soundest methods of treatment.

The physician or surgeon is seldom called on to make a diagnosis or to treat malignant tumors of the testicle. Nevertheless, even in those exceptional instances, the extreme malignancy of this type of tumor and the inadequacy of simple castration should be fully appreciated by all. The surgical ease of castration and ignorance of end-results but poorly excuses the neglect of more efficient methods, even though they are beset by more difficulties. This paper is but a brief summary of a recent and complete analysis of results obtained by castration, radio-therapy and the radical operation,[1] and there follows from this familiarity with the literature and personal experience with these cases, certain fundamental inferences of diagnosis and of selection and classification of cases which may be useful. The diagnosis is not simple, mistakes are costly and surgical exploration should be unhesitatingly resorted to in all cases of doubt. The loss of a few months in making a diagnosis too often means the loss of a life. Once the diagnosis is firmly established, a recognition of individual conditions is essential, in some cases radical operation is clearly contra-indicated, while in other cases it may be directly indicated. The interest of the patient warrants a conservative presentation of the facts and an intelligent recognition of them by the general practitioner as well as the specialist.

DIAGNOSIS

The diagnosis of testicular tumors is chiefly a matter of exclusion. They present no pathognomonic signs or symptoms. Syphilis, hydrocele and tuberculosis present the chief problems of differentiation.

* Read before the San Francisco County Medical Society, May 29, 1923.

1 Hinman, Gibson and Kutzmann: The Radical Operation for Teratoma Testis. Surg. Gyn. and Obs., Oct., 1923.

Figure 1—Photograph showing typical mixed tumor or teratoma of the testicle measuring 6x4.5 cm. Note variegated cystic structure characteristic of teratoma. No normal testicular substance remains.

Gumma simulates tumor more often and closely than any other condition, and it is well never to forget that generalized lues and testicular malignancy may coexist. A positive Wassermann or antiluetic therapy should not be cause for too long delay. It is preferable to remove a gumma, as has been done, than to delay in the removal of a malignant tumor.

Hydrocele and hematocele occasionally present great difficulties in differentiation. The pathognomonic signs of transillumination and fluctuation may fail in hematocele, while certain teratomata in which cartilage and mucoid material preponderate may transmit light and be fluctuant. Trauma as the important factor in hematocele may have been absent, and its significance relative to tumor is about as great anyway. Hydrocele in conjunction may completely mask the presence of tumor, and yet, on the other hand, simple hydrocele may present hard indurated areas due to organization and absorption. Of considerable help often is puncture drainage of the tunica vaginalis, which then permits more accurate palpation of the testicle. There is at present in our pathological museum a specimen of gumma of the testicle associated with hydrocele of the tunica vaginalis and a large cyst of the epididymis, all of which exemplifies some of the diagnostic difficulties that may be encountered.

Tuberculosis more rarely presents difficulties and then only in those rare instances of massive epididymo-orchitis, in which the mass may equal in size that of a large testicular tumor. The radical operation has been performed by mistake on such a tumor mass, even in co-operation with an expert pathologist.

Clinically, we consider all tumors of the testicle as malignant. They have been placed essentially in two groups: The Teratoma (Fig. 1) and Seminoma (Fig. 2). Their pathological morphology has been entered into elsewhere.[2] In Figure 3 will be seen the relative incidence of each type of tumor to age. Clinically, it is practically impossible to differentiate the type of tumor.

In view of the difficulties in diagnosis, the extreme malignancy of these growths and the simplicity of an exploratory examination, the interest of the patient demands that every testicular enlargement which is in any way suspicious, should be immediately inspected surgically and when necessary, its exact nature determined by microscopical study. Delay in these cases proves fatal.

TREATMENT

The treatment of benign tumors of the testicle may be briefly dismissed with a simple castration. The occurrence of benign tumors of the testicle is so rare, however, that it is essential to consider them all as malignant until proved otherwise. Our present knowledge of diagnosis, clinical course and

2 Hinman, Gibson and Kutzmann: The Radical Operation for Teratoma Testis. Surg. Gyn. and Obs., Oct., 1923.

Figure 2—Photograph showing cross-section of typical seminoma of the testicle measuring 5x7 cm. Note characteristic solid, opaque, uniform structure. The right half of the specimen shows a narrow remnant of normal testicular substance (a) which has not yet been replaced by tumor.

prognosis of malignant tumors of the testicle emphasizes that an early and accurate diagnosis of every testicular enlargement is essential. In every case of reasonable doubt there should be no hesitation in exposing the tumor to surgical inspection and whenever necessary performing castration and subjecting the tissue to immediate microscopic examination by an expert pathologist. Hematocele and massive tuberculosis require surgery so that the only possible sacrifice by adopting this policy is that of an occasional gumma of the testicle. Too many malignant growths are apt to be neglected through the uncertainty of diagnosis. Repeated tappings and prolonged observation should be discarded in view of the simplicity of exploration.

The prognosis of tumors of the testicle is a poor one. We will briefly sketch through the present forms of treatment—castration, radio-therapy (radium and Roentgen ray) and the radical operation—and their results.

Castration even with an early diagnosis is a dismal failure. There is sufficient statistical data to show the procedure of simple castration is quite inadequate. It is obvious that this procedure in order to cure must antedate metastatic extension. This it has done only in about 15 to 20 per cent of cases, and the ultimate mortality of 80 per cent after this surgical procedure certainly is appalling. It is at once apparent that castration is very inadequate and must be supplemented by radio-therapy or more radical surgery if any betterment in results is to be achieved.

Radiation in itself has given anything but encouraging results, as evidenced by the work of Barringer and Dean in New York. They do report, however, one remarkable case in which there were large abdominal metastases, and the patient living and well three years and five months since having been first seen.

The Roentgen ray has also been used. Orbaan's (Holland) is the only available systematic study. Here we find reported nine cases, six of which are dead and the remaining are living with metastases. Of interest here also is a case of the senior author. Large retroperitoneal masses which were not palpable through a thick muscular abdominal wall were discovered upon retroperitoneal exposure. The patient received nine Roentgen ray treatments which have kept them stationary. He was seen recently by one of us and was found to be active and working, with no evidence of metastases and to have gained 30 pounds in weight since his operation 23 months ago. While the reports of radio-therapy are too few to prove or disprove its value, nevertheless, its use as a palliative measure in conjunction with surgery as curative seems justified by the few brilliant results recorded.

The poor results following castration have stimu-

lated surgeons in this country and elsewhere to apply the well-recognized and fundamental principle in the treatment of malignancy, namely, the removal of the growth with its draining lymphatic area; in this case it is the testicular tumor and the retroperitoneal iliac and preaortic lymph glands. An analysis of the findings and results of this extensive procedure appears elsewhere.[3] We believe that a period of four years or more has elapsed in a sufficient number of cases to prove its merits, the results over castration having been improved by 100 per cent.

It is, therefore, seen that, as soon as the diagnosis is once established, one of two lines of procedure should be instituted; either a palliative course of treatment by castration supplemented by radium or Roentgen ray therapy in cases with palpable abdominal masses or an wholehearted attack of the problem by removing the primary growth with radical resection of the draining lymphatic area.

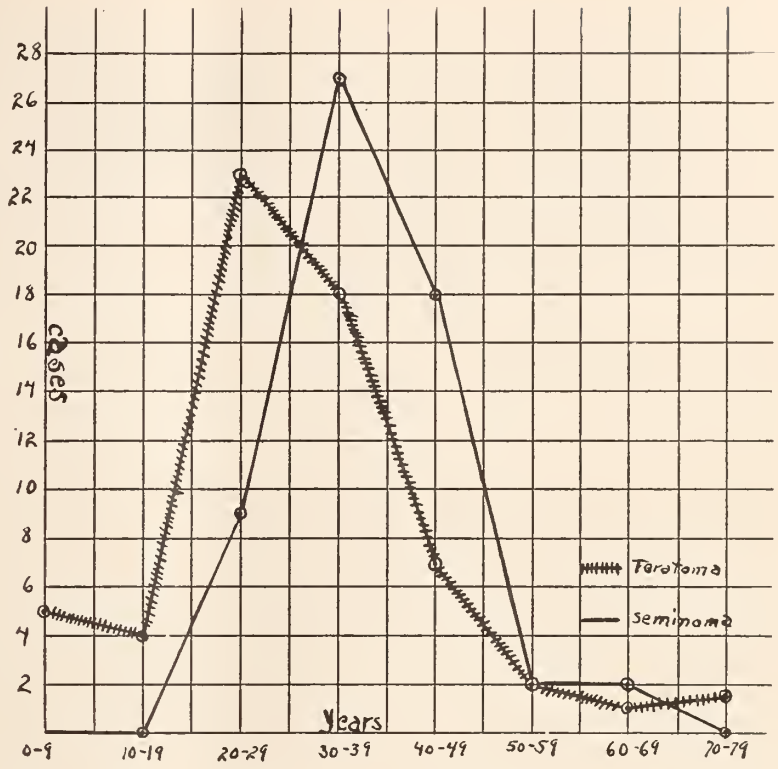


Figure 3—Chart (from Chevassu) showing age incidence of seminoma and teratoma. Note that there are five teratomas under the age of 5 years; no seminomas under the age of 20 years, and only one under 27 years.

A certain number of cases coming for treatment will have clinical evidence of abdominal metastases. The radical operation should not be attempted in these cases because experience has proven them inoperable. Radium packs and Roentgen ray therapy as used by Barringer or Orbaan should be attempted with the hope of checking the malignancy and prolonging the patient's life. In all other cases showing no clinical evidence of metastases, the treatment should at once be radical.

Unfortunately, some of these cases will have inoperable retroperitoneal masses revealed at operation. Such cases will then have to be treated palliatively with radium and Roentgen ray. Radiation of the open wound at the operation table is a commendable procedure in these cases, as well as in those in whom the radical resection has been successful. The group for radical surgery will become larger as diagnosis becomes earlier and more accurate.

A small number of cases might be cured by simple castration, provided metastases have as yet not taken place, but because of the impossibility of recognizing them clinically, they should, in the interest of the majority, be unhesitatingly exposed to the risk of radical surgery. The immediate mortality is less than 10 per cent, and will undoubtedly diminish as more knowledge and experience of the operation is obtained.

[3] Hinman, Gibson and Kutzmann: The Radical Operation for Teratoma Testis, Surg. Gyn. Obs., Oct., 1923.

SUMMARY

1. Tumors of the testicle affect all ages, but are most common between 20 and 50 years. The seminome occurs rarely in children, while the teratoma is the more frequent. Duration of these tumors is variable due to the frequency of periods of latency and quiescence in their development. The duration of the growth or its clinical characteristics furnish no index as to whether or not metastases have occurred.

2. Diagnosis is chiefly a matter of exclusion. Hydrocele, massive tuberculous epididymo-orchitis, and gumma offer the chief difficulties in differentiation.

3. From the pathological standpoint, malignant tumors of the testicle are clinically best divided into two groups—seminomas and teratomas.

4. Simple castration cures but 15 to 20 per cent of malignant tumors of the testicle. From statistics on castration (Chevassu) the teratoma gave a less favorable prognosis.

5. The inefficacy of simple castration has led to the development of the radical operation—complete resection of the primary growth and its draining lymph area. The radical operation at present has already improved the results by 100 per cent—(15 to 30 per cent).

6. Radio-therapy appears to be a valuable therapeutic and palliative adjunct in the treatment of malignant tumors of the testicle.

GOITER IN THE GREAT BASIN

By GEORGE W. MIDDLETON, M. D.
(From The Intermountain Clinic, Deseret Bank Building, Salt Lake City, Utah

From the standpoint of incidence of goiter, Utah and the contiguous States show a great variation in their widespread, sparsely settled territory. Thus, in the Virgin Valley of Southern Utah, it is so common that fully 75 per cent of the women have some form of thyroid enlargement, and because of the isolation of that part of the State some of these women have enormous goiters, which they carry to their graves untreated.

In the Salt Lake Valley, on the contrary, although goiter is present, it is a relatively uncommon condition.

In geological times, a considerable area of the Great Basin was occupied by an immense inland sea. At first this was a fresh water body larger than Lake Michigan, with an outlet into Snake river probably as large as the Niagara river. But as aridity of climate developed, the outlet was cut off, and the great lake became saline. The Great Salt Lake is the remnant of that once mighty inland sea.

Considering the distribution of goiter as a world problem, it does seem that the proximity of saline waters confers comparative immunity. As one follows the narrowing periphery of the great prehistoric body of water which once occupied these mountain valleys, the incidence of goiter gets less and less the nearer you approach the vanishing point, which is the Great Salt Lake. This is no doubt due to the fact that salt, as it occurs in nature, nearly always carries a certain percentage of iodine, and the saline content of soil, and of vegetables that grow from soil, increases as you approach their most recent deposit.

Whatever the cause of goiter, whether iodine deficiency or the presence of iodine reducing bacteria, Utah furnishes abundant evidence that it is associated with drinking water.

I know personally of two families, in parts rather widely separated, in each of which two girls had reached their later teens without developing goiter, but in each of which goiter rapidly developed when they changed their abode only a few miles and went into a goiter district for the purpose of attending school.

In St. George, a town of Southern Utah, with a population of approximately 3000, goiter was quite unusual for more than half a century from the time of its founding, until a water system was installed and the Cottonwood water diverted from the Pine Valley Mountains. Since the advent of this new water supply many women are developing goiter, and what was for a long time an immune district has now become an endemic goiter region.

In an incomplete survey of Iron County, Dr. M. J. Mcfarlane reports that approximately 44 per cent of school children in the grades have goiter, and Dr. O. Sundwall reports that goiter is very prevalent in Sanpete County. The capriciousness of the geographical distribution of goiter is indicated by a report from Dr. Curtis, who found 6 per cent in school children of Payson and 67 per cent in school children of Santaquin, two towns only six miles apart.

Unfortunately, no comprehensive data of goiter incidence is available, though such information is being obtained by various agencies.

Of our own 213 cases embraced in this report, there is a distinct tendency to incidence in certain distinct valleys, though the majority of the counties in the State are represented, and a number have come from adjoining States.

These observations are isolated and not controlled, but suggest that in this Rocky Mountain region the next few years may develop facts of importance in the knowledge of goiter.

Although this sparsely settled intermountain country does not furnish materials for large goiter clinics, as the Great Lakes country does, we have our due proportion, and our experience shows that the same principles as to causation, variety, percentage of toxicity, and results of greatment obtain with us as with other people.

During the last two and a half years we have seen and treated 213 cases of the various types of goiter, not including hypothyroidism or the inflammatory conditions. Of these, 75 were of the toxic variety and 138 of the non-toxic type. Of these cases, 111 were treated surgically, 128 operations, including ligations, being performed on them. The remainder, largely of the colloid type, were not operated.

SURGICAL MORTALITY

Upon these 111 cases, 111 thyroidectomies and 17 ligations were performed. There were no deaths from ligation, and two deaths, or 1.8 per cent, from the thyroidectomies.

Sixty-nine per cent of these cases were toxic, and many of them extremely toxic. Of the two deaths, one was a case of simple goiter developing tracheal collapse some hours after the operation. Apparent symptomatic improvement detered us from doing the tracheotomy which might have saved her life. The other fatal case was a severely toxic one which failed to respond in the least to weeks of rest and medical treatment. As she was going from bad to worse, the operation was done as a last resort.

In this series there were two cases so toxic we dared not operate them. One of these cases refused to submit to a long period of preoperative treatment, and died later after operation at the hands of another surgeon. The other died in the hospital without operation, showing marked gastro-intestinal symptoms, with jaundice and cardiac failure.

RESULTS OF SURGICAL TREATMENT

Of these 111 operated cases, we have been able to secure reports from 70 cases at intervals after operation varying from two months to two and a half years. In the big majority of the cases the results were striking and the patients most grateful. Nothing more dramatic has occurred in our experience than the physical and mental change that comes over the subject of hyperthyroidism in the few weeks following a successful thyroidectomy. One sees the woman who was an emaciated nervous wreck, with palpitating heart and trembling hands, transformed into a normal person,

with vitality restored and the joy of living reflected from her countenance.

The replies from these 78 patients may be summarized as follows:

	No. of Cases
Cured of goiter—health entirely restored	38
Greatly benefited	18
Benefited	13
Benefited, but some return of goiter	1
Died after operation	2
Unable to secure report	22
Not improved	3
Too recent to report	11

Gain of weight was striking in the successful cases, averaging 20 pounds; one gained 60 pounds.

Of the three cases that claimed no improvement, one, although gaining in weight, complained of menorrhagia and suffered from focal infection in tonsils and sinuses, and the other two had complicating conditions which marred the picture.

A few of the cases reporting moderate or marked improvement from thyroid surgery were still not in perfect health. It is our impression that focal infection, which in the borderline thyroid cases may make the thyroid diagnosis doubtful, may persist after a successful thyroidectomy and prevent a perfect return to health. No post-operative goiter case presenting signs of focal infection should be allowed to get entirely away from observation until the bacterial focus has been cared for.

PREOPERATIVE PREPARATION

We have come to feel that the most important factors in preparation for operation are a period of rest in bed and fluids to the limit of the absorbing power of the patient. We give calcium carbonate for the possible prevention of post-operative tetany. More recently, following the lead of Plummer, we have been giving Lugol's solution, but the period of its use has been too short to arrive at any conclusions as to its value. Except in those cases showing objective cardiac failure, preoperative digitalization has seemed of little value. In one case with non-paroxysmal auricular fibrillation quinidine was used to restore normal rhythm before operation.

SURGICAL TECHNIQUE

In the very toxic cases we attach considerable importance to the form of deception first announced by Crile, of taking the patient to the operating-room under the anesthetic, without letting her know that she is to be operated. We have tried operating in the patient's room, but have concluded that, unless one is doing enough of the very hazardous cases to develop good team work with the force on the floors, it is better to take the little extra time and transport the patient to the operating-room.

Following the lead of Crile, we have used the method of giving the amount of nitrous oxide gas and oxygen to produce analgesia, and supplementing with ½ of 1 per cent novocain used locally. The patient is thus carried through the operation without loss of consciousness, except possibly for a brief period of time when each separate lobe is being elevated.

We have nearly always divided the neck muscles transversely, and believe we get the best exposure in that manner.

We are convinced that safety in operating on the thyroid depends upon a few fundamental things: First, careful selection and preoperative preparation of the patient; second, thorough comprehension of the anatomy, and third, good team work on the part of the operating force.

In the "Wild West" we used to speak of men who were "quick on the trigger." Only that type of mentality which is quick on the trigger should attempt goiter surgery.

We have had our full share of the hemorrhagic type of goiter, and I know of no condition that can make a greater demand upon the alertness and resourcefulness of a surgeon. To have tissues crumble at every touch, and well out blood in an avalanche from every conceivable point, is a spectacle to try the stoutest heart. We have only two suggestions to make to the surgeon confronted with such a predicament; first, the almost reckless disregard of consequences in dislocating the lobe from its bed, and second, after dividing the isthmus, to mattress through from side to side each separate bloc of tissue before separating it from its posterior attachment.

We believe that the frequent observation of blood pressure and the general condition of the patient, by a competent observer, throughout the operation, has enabled us to stop in time several operations where life was threatened by shock or hemorrhage; in these cases gauze-packing was applied, and the operation not completed until the next day.

We feel sure that this procedure has materially lessened our mortality.

As we look over our own results, we do not seem to have gotten such striking improvement from preliminary ligation as one is led to expect from a perusal of the literature. In fact, considering the added complication of adhesions, and the delay and expense to the patient, I am convinced that primary thyroidectomy would have been better in a number of our cases. Of course, some of them are so bad that one turns to anything that will break the brunt of a difficult shock-producing operation. But we shall do more primary thyroidectomies in the future.

POST-OPERATIVE COMPLICATIONS AND TREATMENT

Post-operative hemorrhage has been infrequent, but occasionally serious enough to lead us to have all suspected cases typed for transfusion prior to operation. Hyperpyrexia has occurred in only two cases; here the application of chopped ice and copious intravenous fluid infusion seemed of great value. Tetany in greater or less degree occurred in three or four cases. Calcium seemed to control the symptoms at once, and there was no serious consequence. Paroxysmal auricular fibrillation has been not infrequent. Quinidine has been of value in its treatment. In one case an apparently permanent fibrillation occurred after operation; normal rhythm was restored by quinidine, and is maintained six months after operation.

Perhaps the most interesting condition after

operation is that described of late as hypoglycemia. In five cases this clinical picture developed. The urines showed the presence of much acetone and diacetic acid. Unfortunately, at this time we had not begun to make blood sugar or carbon dioxide determinations, but the relief from intravenous glucose, as in the Johns Hopkins cases, was very striking.

NON-OPERATIVE TREATMENT

In a few cases of toxic goiter we have tried X-ray treatment, but without much effect. The medical treatment of the non-toxic (colloid) type in young people by means of iodine has been very gratifying, in a few cases surprisingly large goiters melting away. But we learned that we were too impatient for quick results, and that cases apparently not improved at first would show great improvement if seen a few months later.

We are much interested in the preventive work done by Marine and Kimball, and adopted more recently by the Swiss Government. Heber J. Sears, of the Department of Hygiene and Preventive Medicine of the University of Utah, is going into a survey of three of our most involved counties, and a detailed effort will be put forth to adopt Marine's plan of prevention.

T. B. Beatty, chairman of the State Board of Health, is bringing an expert from the Rockefeller Institute to make a survey, and take into consideration a campaign for the application of preventive measures.

Maccarison has said that 5 per cent of children born of goitrous mothers will be cretin imbeciles. We are recommending all pregnant women to take the same small preventive quantity of iodine that we are giving school children, in the belief that in this way some cases of imbecility may be avoided, and the unborn child may be started on its course with a properly functioning thyroid.

We are fully aware of the fact that in these sparsely settled districts we cannot speak with the authority that comes from the study of large numbers of cases, but so far as our experience goes we are essentially in accord with the deductions drawn from the larger studies. We are zealous advocates of the surgical treatment of all forms of toxic goiter, and of all those which will likely become toxic, or which otherwise are pathological. We are also enthusiastic over the preventive treatment and of the medical treatment of goiters which are not surgical, especially in children and young adults.

Left Superior Cervical Sympathectomy Under Local Anesthesia in Angina Pectoris—In the case reported on by Jay Harvey Bacon, Peoria, Ill. (Journal A. M. A., December 22, 1923), there has been effected a complete relief from all severe symptoms. The results have justified the means used in this case, and Bacon regards the operation as a justifiable procedure in those severe cases of angina pectoris that do not respond to rest and diet and the administration of nitrites. The incision over the anterior border of the sternocleidomastoid muscle gives a quick easy approach, and it may be safely attempted under local anesthesia when the condition of the patient will not justify the use of a general anesthesia.

SPONTANEOUS PERIRENAL HAEMATOMA

CASE REPORT WITH COMMENT

By LEON JOSEPH ROTH, M. D., Los Angeles

J. B., male, age 48, cement worker by trade, entered St. Vincent's Hospital, Los Angeles, December 29, 1922, complaining of severe back pains and recurrent presence of blood in the urine. He was thin and cachectic and so weak he could barely walk.

Temperature, 98.6; pulse, 110; respirations, 22; blood pressure, S-112 D-100; blood count, reds 3690000; whites, 18285-14628. Hemoglobin, 60-65.

Past History — Usual diseases of childhood, typhoid fever and rheumatism. The arthritis is now becoming more noticeable in the elbow-joints. About ten weeks ago he was given serum treatment for rheumatism, which caused some digestive disturbances and vomiting. Patient denies venereal diseases. Cervical lymphatics (presumably tuberculous) have been removed. Fracture of the skull, 1919, is reported by the patient. Apart from these conditions he has been in fairly good health and has been doing light work. Although previously constipated, he has had diarrhea for the past few days. Appetite poor due to alleged stomach disorders. Sleeps poorly. Does not drink, smoke, or use drugs.

Chief Complaint—Dull and continuous pain in small of back on both sides for past three weeks. Pain does not radiate, usually appearing toward evening, persisting through the night and disappearing about daybreak. No associated nausea or vomiting, although has had emesis independently of pain. He does not know when blood first appeared in the urine. He says urine has been clear at times, and at other times there is a recurrent "total" haematuria. Denies any trauma whatsoever. There is no dysuria. Nocturia, previously absent, has persisted since beginning of back pains. Apart from this no further definite information is obtainable. The more or less constant complaint is of very severe pain in the lumbar and left hypochondriac regions.

Physical Findings — Pupils dilated, slightly irregular, but react readily to light and accommodation. All teeth out; scars on both sides of neck from previous adenophathies, and one large anterior cervical lymphatic present. Chest symmetrical, good expansion; resonant throughout; no rales, No enlargement of the heart. Sounds loud and regular; slightly roughened first sound at apex, not transmitted; aortic second sound markedly accentuated, probably due to arteriosclerosis. There is decided muscular resistance and tenderness in the epigastric region and left hypochondrium; soreness along the spines of lumbar vertebra. The knee-jerks, tricipitals, bicipitals, and achilles are absent. Babiniski reaction not present; Wassermann reaction negative. A working diagnosis of malignant kidney was made.

Progress Record—The patient was kept under observation to note the persistence of haematuria and pain and secure the temperature record. On

January 1, 1923, pathological disturbances in the kidneys are still apparent and complications were suspected. However, the patient was too weak for special urological examination.

January 4 — Relative diminution of resonance over left chest was noted; heart displaced slightly to the left, with a systolic murmur best heard in pulmonary valve area. The abdomen was quite rigid throughout; nothing can be made out on palpation except vague tenderness. On this date the knee-jerks were not obtainable. The patient was very ill. There is marked weakness and a certain amount of dyspnoea; holds himself very rigidly and complains of pain in lower spine and in thighs when moved.

January 5—There was a severe attack of pain in the left hypochondriac region running through to the back. This pain resembled a kidney colic. The temperature dropped to 95; in shock; perspiring freely; morphine required.

January 6—There was a second attack of pain in left kidney region, but not so severe as the first attack. There was a marked rigidity, in left hypochondrium and in the back at same plane, with tenderness both superficial and deep. The left lung shows numerous rales throughout and an increase in the area of dullness. The heart murmur has increased in intensity and is rough in quality.

January 9—The patient had another attack of acute pain in the left hypochondriac region. It is possible for first time to palpate indefinitely a mass in left side of the abdomen, but no borders can be made out.

January 10. — Fluoroscopic examination of the G. I. tract was negative.

January 11—The mass in the left side of the abdomen can now be more definitely appreciated. It extends from the margin of ribs above and deep in to below iliac crest and over almost to the midline of the abdomen. It cannot be moved and is tender to deep pressure.

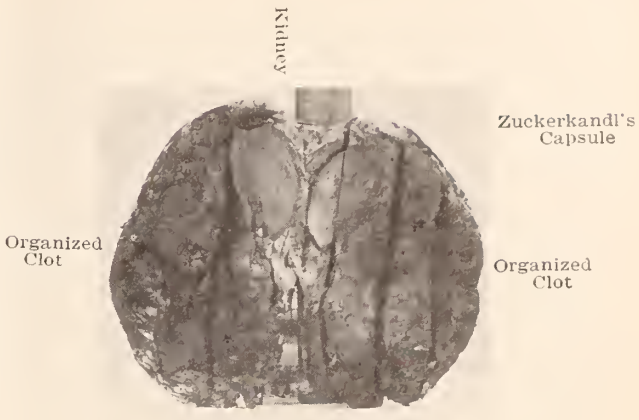
January 13—The patient's general condition is slightly better with less pain.

January 15 — Slight general improvement continued. Diagnosis has not been possible on account of fear of collapse if cystoscopy were attempted. There was a leucocytosis and a rise in temperature to 100. The patient suffered from two severe attacks of acute pain in the left side of the abdomen during the night. It required two injections of morphine to relieve the pain. During the morning of January 16, the patient suddenly began to fail. The pulse became thready, respiration shallow, and death occurred within the hour.

NECROPSY BY DR. C. W. BONYNGE

No other gross pathology noted apart from large flat left kidney, which is completely surrounded by partly fresh and partly old laminated clots; all contained within Zuckerkandl's capsule and replacing perirenal fat.

The kidney structure shows absence of definite pyramids and has appearance of fibrous nephritis. The entire mass is about the size of an infant's head. There are loose clots and fluid blood in left iliac fossa caused by leakage through bottom of capsule. No evidence of pathological lesions that would indicate origin of hemorrhage.



Perirenal Haematoma.

COMMENT

Taking into consideration all of the findings in this case, supplemented by failure, after careful search, to detect any pathological lesion responsible for the hemorrhage, it seems proper and reasonable to classify it as a spontaneous perinephritic haematoma.

Essentially a lesion of some variety existed, but in the limited number of reported cases, as in this, the predisposing factor escaped observation. There was no evidence of lithiasis, neoplasm, tuberculosis, aneurism, suprarenal disease or haemophilia. A nephritis of fibrous type was present.

A venturesome explanation might be the rupture of a small sclerotic artery. The right kidney was normal.

A correct diagnosis during the early stage of the disease was practically impossible, and at the time when this might have been made the patient's condition was so grave as to forbid an examination.

927 Pacific Mutual Building.

DISCUSSION

W. W. Cross, M. D. (Fresno)—Upon examining kidneys, which have been the source of hemorrhage into the urinary tract, it is often impossible to find the source at any particular portion of the kidney substance examined. This is true in kidneys with decided gross pathology. In those that have for years been the seat of disease, in which colon infection is usually present, the process having a range of involvement from a portion of one kidney to the entire organ or to an involvement of both sides may be present. In such kidneys copious hemorrhage may be an initial symptom leading to a study which uncovers a marked chronic disease. Observation made during the study of such cases reveals distortion of the kidney pelvis, frequently attended with changes in the ureter. The cortical area is always reduced in size, cysts are frequent, while connective tissue production varies. In many instances an acute nephritis has been grafted upon the process immediately before the specimen is obtained.

The description of the gross specimen in this case is not sufficient for one to draw a very decided opinion. Some help should be derived from a study of sections made for microscopical examination. The fact recorded in the necropsy that the capsule had an opening through which fluid blood had leaked is suggestive as a possible explanation for perirenal hemorrhage. The pyramids in the specimen have

to a decided extent lost their form, demonstrating an old process. Whether perirenal hemorrhage has been observed or described in such cases matters not, for it is quite within the realm of possibility for such hemorrhage to come to the surface of the kidney. The trauma that would be necessary to bring such a condition to pass as described need not be severe. Statements on the part of the patient regarding injury are frequently misleading. Diseased kidneys in which the producing activity of the connective tissue elements have not been stimulated to a great extent are easily wounded and require a slight amount of injury to produce hemorrhage. Blocking of the ureter following slight trauma could easily force blood from a hemorrhage through the parenchyma of such a diseased kidney. That the hemorrhage in this case is one from a kidney which has been the seat of disease for many years is conclusive.

Charles P. Mathé, M. D. (Phelan Building, San Francisco)—In the case presented in this report one notes the history of backache, pain and resistance in the left hypochondriac and lumbar regions associated with recurrent attacks of hematuria of three weeks' duration. Following an attack of shock in which the pulse became accelerated and the temperature diminished rapidly, a growing tumor was noted to appear in the left hypochondrium, increasing to such a size that it filled the space between the ribs and the iliac crest and extended to the midline. The rapid increase in size of the tumor might suggest a fairly large renal hemorrhage in which the blood became encapsulated within Gerota's fatty capsule.

The case illustrated two points: (1) The consensus of opinion of the inadvisability of making complete urological studies on extremely debilitated patients, and (2) the question of early surgical intervention in the case of severe renal hemorrhage.

Some surgeons advise against surgical intervention to control renal hemorrhage in extremely debilitated cases. Others maintain that the occasional beneficial result in these cases is worth the chance. In 1921 Bugbee reports an operation on a case of carcinoma of the left kidney associated with a large calculus which had severe hematuria. The pulse was 130 and of poor force and volume, and the hemoglobin 30 per cent. However, the hemorrhage was controlled and the patient's life prolonged by nephrectomy. However, as the patient has nothing to lose and much to gain, it may be well to attempt a quick, clean nephrectomy in these cases in order to control exsanguination.

Pathological examination of the kidney revealed a definite pathological lesion, fibrous nephritis which had existed a sufficient length of time to cause a distortion in the arrangement of the pyramids. This lesion could cause a small microscopical hemorrhage of the kidney parenchyma which forced its way through a poorly developed kidney capsule. The determination of the rupture of a small sclerotic artery or an area of hemorrhage in a chronic nephritic kidney can often only be made by a thorough microscopical examination of the kidney. Because of the presence of blood in the urine the hemorrhage probably passed through the renal parenchyma and perforated the pelvis.

Doctor Roth (closing)—The description of this tumor is intended as a contribution to the sparse literature on the subject. The gross specimen is unquestionably a pure perirenal haematoma of long standing. I think the leakage into the left iliac fossa was due to an acute hemorrhage which ruptured the attenuated proper capsule of the kidney or broke through the anatomical opening of Zuckerkandl's capsule. The pelvis could not have been ruptured because haematuria was not constant and not always coincident with the external bleeding.

It is regrettable that the photograph was not seen by Cross and Mathé. Cross justly states that the description is not sufficient to permit of drawing a decided opinion, and Mathé brings up the vital point regarding intervention, and no doubt feels in such cases that whatever is done is wrong. I think that, apart from the laboratory findings regarding hemoglobin, etc., the physical appearance and condition of the patient is of great value in making a decision as to whether or not to explore.

How One Rural Community Maintains an Efficient and Economic Laboratory Service—Pomona, Calif., has a population of 15,000 and Pomona Valley another 10,000, who are attended by about 30 educated physicians. This territory is served by the Pomona Valley hospital, located at Pomona. This hospital has a normal capacity of 40 beds and a daily average of about 25 patients. The hospital is dependent absolutely upon the fees collected from patients for its maintenance. There is no staff, and patients are accepted only in charge of their own physician, who must be a licensed doctor of medicine, graduated from an acceptable medical university. The hospital assumes no dictation in the treatment of any of its patients, except that they must be treated by an educated physician. The hospital does not provide any laboratory service nor an anesthetist. These latter problems are handled as follows:

By a mutual agreement, each physician pays into the laboratory a fixed sum each month, in return for which he may send in all the laboratory work he wishes. Each physician makes such charge to the patient for this service as he deems proper and looks after the collection of the same. Whenever the record of his work at the laboratory shows that he is not paying a sufficient monthly stipend, this is increased by mutual agreement, according to the records for perhaps six months previous. In the same way the doctors have mutually agreed to engage the pathologist for all their anesthetics, for which the pathologist must make his own charges and collections. As a matter of courtesy, we usually see to it that these bills are the first to be paid by the patient.

The pathologist equips and maintains the laboratory, and the hospital rents him the necessary rooms at a minimum charge. All the ordinary tests are made in the laboratory and an affiliation with one or more of the large city laboratories enables our pathologist to engage their services in occasional instances where unusual and intricate procedures may be necessary.

This plan has worked so successfully and harmoniously for the past ten years that we should be very reluctant to give it up under any circumstances. —Joseph K. Swindt, M. D., Better Health.

One Year of Common Colds and Associated Infections—In discussing this subject the Metropolitan Life Insurance Co., in its Statistical Bulletin of November, 1923, gives the following figures: The amount of absenteeism in large business and industrial establishments due to minor illnesses is seldom appreciated until the facts are thoroughly reviewed. The common "colds" are among the chief sources of lost time. In a group of about 6700 clerical employes of the Metropolitan Life Insurance Co. at the Home Office, during the 52 weeks ending July 28, 1923, 2824 "colds" which involved disability for work were reported to the Medical Division, which cares for the health of the clerical staff. These disabling affections occurred at a rate of 420.7 per 1000 employes for the year. The average days of disability for this illness per person on the payroll for the year was .9, and the average days per case were 2.2. In all, there were 6233 days lost in the year from these conditions, which included head colds or coryza, acute bronchitis and tracheitis. Other associated conditions were excluded because of the impossibility of determining in how many cases they were associated with common colds.

INCIDENCE OF INTESTINAL PARASITES

By MARSHALL C. CHENEY, San Francisco
(From University of California Medical School.)

Attention has been drawn recently to the prevalence in temperate climates of amebic dysentery, as well as less disabling parasitic infections of the intestine. In order to ascertain the incidence of these infections in San Francisco and the Bay region, it was decided to examine the stools of 1000 cases of all sorts, both medical and surgical, following the technic of Kofoid and Swezy. During the two years (May 1921, 1923) in which this series was being collected and analyzed, preliminary reports were given out from time to time (Medical Clinics of North America, September, 1922, and June, 1923). In this paper the entire number will be considered.

Table 1. Pathogenic Parasites in 1000 Medical and Surgical Cases

E. Histolytica—	
Acute dysentery	13
Chronic or carrier	36
Giardia	34
Chilomastix	35
Trichomonas	17
Balantidium coli	1
Craigia	3
Spirochaetosis	3
Hookworm	11
Ascaris	6
Strongyloides	3
Oxyuris	2
Total cases	164

Per cent, 16.4.

Taking all the parasites to which even the slightest pathogenicity has been assigned, it is seen (Table 1) that there were 164 cases. This gives an incidence of 16.4 per cent, but a somewhat lower figure would be more nearly correct, because some of the patients were referred for examination on account of suspected parasitic disease of the intestine, and so did not come in the "ordinary run" of a general practice.

Table 2. Non-Pathogenic Parasites in 1000 Medical and Surgical Cases

E. coli	65
E. nana	28
E. councilmania	13
Trichiuris	10
Blastocystis	innumerable

Harmless parasites of the intestines are encountered even more frequently than the pathogenic varieties (Table 2). These must be recognized, because resemblance to pathogens may lead to an incorrect diagnosis, followed by useless or even harmful treatment. We have included E. councilmania infections among the non-pathogenic varieties, even though there is some evidence that the parasite occasionally produces an ulcerative colitis. It is very difficult to differentiate this ameba accurately from E. coli, and usually no symptoms can be definitely ascribed to its presence in the intestine. Trichiuris in large numbers may produce symptoms, but as ordinarily encountered nothing can be attributed to the worm. Blastocystis is present in at least 50 per cent of the specimens examined. It is of little or no importance, except that it may be confused with amebae or even flagellates, or may mask the presence and hinder the detection of really pathogenic parasites.

Table 3. Mixed Parasitic Infections in 1000 Medical and Surgical Cases

Combinations of amebae, flagellates, and worms, all pathogenic	8
Combinations of pathogenic and non-pathogenic	19

Mixed infections are fairly common (Table 3). When more than one pathogenic parasite is present in the intestine, it may be difficult to assign the agent of the symptoms. When non-pathogenic parasites are present, together with one or more harmful varieties, the real source of the symptoms may be entirely overlooked, unless very careful stool examinations are made. In general, however, the parasite that was responsible for the symptoms, or at least its cysts or ova, was found in enormous numbers in the stool.

Table 4. Stools of Non-Parasitic Cases

	Normal	Abnormal
Gall-bladder disease	32	0
Peptic ulcer	28	0
Chronic appendicitis	11	0
Acute appendicitis	2	0
Colitis	9	0
Visceroptosis	10	0
Pernicious anemia	6	0
Pelvic disease	7	0
Arthritis, all forms	14	0
Epilepsy	11	0
Carcinoma of stomach	1	4
Carcinoma of colon	3	3
Pellagra	3	1
Cholangitis	2	0
Cirrhosis of liver	2	0

With the exception of flagellate disease in children, all the patients with so-called pathogenic protozoa or helminths in the intestine had symptoms referable to the parasite. Those infected with non-pathogenic parasites had no such symptoms and their stools were normal, unless there was a non-parasitic lesion of the gastro-intestinal tract. Patients with well-defined disease not due to protozoa or worms at times had symptomatology suggesting intestinal parasites, but their stools were generally normal (Table 4), except in ulcerative conditions of the colon, or with bleeding lesions higher up.

Table 5. Results of Blood, Urine, and Wassermann Tests in 100 Cases

	Negative	Positive
Blood Wassermann test	95	5
Urine (routine tests)	85	15
Blood (routine wc, reds, hgb, smear)	85	15

To see whether routine examination of the stool gave results commensurate with the findings in routine blood and urine examinations, the percentage of "positives" in the last hundred cases of all sorts entering the office for diagnosis was plotted (Table 5). It is evident that abnormalities are not found any more frequently in blood and urine than in the stool. This is an argument for routine examination of the stool. The more complicated tests should be left to special technicians and com-

mercial laboratories, as in blood and urine examination.

CONCLUSION

Disabling disease of the intestine (amebic dysentery) and minor diseases due to pathogenic protozoa and helminths are fairly common (10 to 15 per cent of all cases in general practice). Routine stool examination is the sole means of absolute diagnosis of these infections, and requires no more time than the ordinary routine blood and urine tests.

210 Post Street.

DISCUSSION

Alfred C. Reed (350 Post Street, San Francisco)—It is a pleasure to know that the human protozoa are receiving careful study in California, and that their importance is being recognized. Such a report as this is striking confirmation of the belief that we have been overlooking an important clinical field. The protozoa are difficult to recognize and do not produce characteristic symptoms. I am inclined to differ with Cheney in one particular, rather in his statement than in what I believe to be his intent. This is in regard to the pathogenicity of the flagellates and amebas of the human intestines. We hardly are familiar enough with these organisms yet, and study of them is too difficult to permit us to assume a final knowledge of their clinical and pathologic results. It seems to me safer to consider that all the protozoa, at least potentially, may be harmful though in a varying degree, of course, and often in proportion to the mass of infection. The judgment as to whether treatment should be instituted requires nice study in each patient. As Cheney says, it is often useless and may be harmful. In our series at Stanford and in private cases, we have found a majority of E. histolytica patients complaining of constipation and not of diarrhea. Nor is a history of dysentery or even of diarrhea obtainable in all patients who harbor histolytica. Protozoal infestation can no longer be regarded as a purely tropical affection. An incidence such as indicated in the paper under discussion demands attention. This is the situation in California. We very much need careful studies correlating the presence of protozoa with pathology and especially with clinical symptoms of disturbed physiology. Intestinal protozoa can injure the body in various ways other than that reflected by a diarrhea or dysentery. It is probably with these less obvious methods of damage that we have chiefly to deal clinically in California and temperate climates.

John V. Barrows, M. D. (Chapman Building, Los Angeles)—This paper is of particular interest and importance, because it considers intestinal protozoa of all kinds. It is of great value, because it studies these organisms in their relationship to disease generally.

A brief discussion permits only fragmentary remarks which I shall direct chiefly to the tables compiled. The incidence of 16.4 per cent is only slightly lower than given in my article before the society in 1921. However, I find the chilomastix by far the most predominating organism in my series of 750 protozoan infested cases.

The classification of non-pathogenic parasites is a subject of considerable disagreement among clinicians and protozoologists. It would be very difficult to prove that the parasites enumerated in Table 2 are "non-pathogenic." I think Musgrave rightly said, "They are a heap in bad company."

Table No. 4 is certainly based on inadequate analyses. In recent years I have seen no cases of colitis, pernicious anemia, or chronic arthritis in which I could call the stools normal. I desire to add that most cases of chronic appendicitis, epilepsy and such skin manifestations as pellagra on the average have very abnormal stools.

Table No. 5 stresses very nicely the need of routine stool analysis. I believe I am able to add that these infections, when marked by a fair degree of toxemia, show a helpful diagnostic blood picture. The haemoglobin and red cell count are low. The total leucocytes are depressed in number to a fair degree of leucopocnia, unless there is some intercurrent infection. The polynuclear cells are definitely decreased. The total mononuclear percentage is decidedly increased. A typical picture approximately runs: Hb. 70 per cent; wbc. 6000; rbc. 3,400,000; polynuclears, 50 to 55 per cent; monos, 45 to 50 per cent.

Cheney is to be congratulated on having given to the medical profession a very valuable piece of work.

M. C. Terry, M. D. (921 Consolidated Building, Los Angeles)—Cheney's interesting paper, and particularly his Table No. 1, showing 16 per cent of intestinal parasitism in the ordinary run of unselected cases in a general practice, has led us to go over our files to see what per cent of the requests on our laboratory are for stool examinations. We find it has been 2½ per cent in the last two years.

Our percentage of positive findings is higher than in Cheney's table, as would be expected; the last 100 cases, not counting cultures and other special requests, and not counting repeated examinations in the same case, have shown 30 per cent of protozoan or helminthic infection.

For comparison we collected the last 500 Wassermann tests, exclusive of those from hospital and group practice where the test is made routinely, and we found that these made up 37 per cent of our work. These 500 Wassermann tests gave us 20.7 per cent of positive results (three plus and four plus), while 135 Wassermann tests done routinely from a general practice, during the same period, gave us 5.2 per cent of positives.

Herbert Gunn, M. D. (350 Post Street, San Francisco)—Cheney's very interesting paper, the result of an enormous amount of work hardly appreciable by one who has not made this sort of examinations himself, emphasizes two very important and generally unrecognized facts; first, the prevalence of various parasites in the intestinal tract and, second, the value of routine stool examinations as compared with routine blood and urine examinations.

The term "amebic dysentery," as generally used to cover all amebic infections of the intestinal tract, is a misnomer and should be discarded, as it implies the presence of an intestinal flux which generally is not present.

One not infrequently hears the excuse given for failure to examine a stool that the patient gave no history of having had a diarrhea or dysentery.

Intestinal amebiasis, a name given it by Musgrave many years ago, is far more correct. This may be supplemented by the terms, with dysentery, acute, chronic, carrier, etc.

The classification of the flagellates with the pathogenic parasites I do not believe is warranted with the evidence we have at hand at present. In my own experience, which covers a considerable number of these infections, there has been an entire lack of symptoms referable to the flagellates.

Cheney wisely remarks that one must be able to differentiate between the pathogenic and non-pathogenic parasites, in order to avoid useless or even harmful treatment.

I would add that parasites which have not been fairly definitely shown to be pathogenic and which produce practically no symptoms, unless they can be eradicated by simple treatment, should not be generally treated. I have seen several patients who have been decidedly harmed by prolonged attempts at removal of flagellates.

Cheney states that the patients with pathogenic parasites had symptoms referable to the parasites, also that patients with well-defined diseases not due to protozoa or worms at times had symptomatology suggesting intestinal parasites, etc. It seems to me

that this should be supplemented by the statement that not infrequently parasitic infections produce symptoms which are mistaken for various other complaints, for example—chronic appendicitis, cholangitis, peptic ulcer, gall-bladder disease, colitis, pernicious anemia, malaria, intestinal tuberculosis, etc. I have seen a number of cases of amebiasis mistaken for chronic appendicitis and several such errors where hookworm and ascaris were the causes.

Doctor Cheney (closing)—There is little doubt of the pathogenicity of E. histolytica, Balantidium coli, and the hookworm. These cases alone, amounting to 6.1 per cent of the series, are sufficient reason for making a routine stool examination, which is the sole means of absolute diagnosis of these diseases. The routine test need not consist of anything more than a five-minute examination of a wet smear.

As we have no certain cure for flagellate infections, with the possible exception of Giardiasis, it is difficult to say whether they are pathogenic or not. There is no way to contrast the condition before and after the eradication of the parasite.

The Doctor and the Press—Now that medical publicity and the place the physician may occupy in it is receiving so much attention, it is interesting to see the reactions of newspaper editors. In discussing this subject Richard J. Finnegan, editor of the Chicago Journal, says: "The history of medicine in the United States is one of the most glorious contributions to modern civilization. Rome was great in lawyers and orators, but weak in doctors. It used to be the boast of pompous Romans that the Roman empire lived for 600 years without a recognized medical profession—but look where the Roman empire is today.

America would not be what it is at this hour without American medicine. This great profession has created and perfected itself, without undue interference or direction from legislatures, trotting to the beck and call of lay minorities that do not appreciate the devotion to the high calling, the self-abnegation and the fine sense of ethics, honor and public welfare that have marked the careers of American physicians and surgeons. . . .

The secret of the success of American medicine has been its freedom of initiative for the individual and the bounty of reward allotted to pre-eminent accomplishment resulting from years of study and labor.

I need not tell you that in recent years the world-wide tendency to government paternalism is beginning to assert itself against your citadel. You could tell me more instances than I could assemble to prove that statement. You could cite the example of Russia, England, Germany and other countries where medicine and surgery have been commercialized and governmentalized, to the detriment not only of the profession, but of the people and the countries. . . .

If the newspapers printed all the publicity puff that comes to them, from a third to a half of their space would be used to accommodate free advertising masquerading as news. Some of it is printed, of course, but the ordinary reader has no conception of the amount of time consumed in the newspaper office in eliminating the press agent's handout.

There is a frenzy for publicity. It touches not only business, but reaches into the homes of the high and the lowly. . . .

The American frenzy to appear in print can be pictured in no better phrase than 'a violent appetite' to bask in the spotlight. To get a picture or a speech in the paper seems to be life's sole ambition to some people. In fact, psychologists and police declare that certain of Chicago's most common crimes committed by girls and boys are inspired by a certain bug that they pick up in the swirl of this moving picture age. They have a violent appetite for notoriety."

POSSIBILITY OF REMOTE EFFECTS IN HEAD INJURIES—A CASE REPORT *

By CHARLES E. MORDOFF, M. D., Fresno

It is the unusual and obscure, in injuries, which keeps the interest of the physician in industry alive to the possibilities in industrial surgery. The case here reported has been of the utmost interest to those who have been actively engaged in treatment, and deserves the attention of all industrial physicians.

Frank H., a robust, very well nourished and developed man, age 48, a blacksmith and miner by occupation, was injured March 16, 1921. He was engaged in straightening a length of drill-steel, using a compressed-air hammer. The steel broke in a flaw, and a piece about a foot long struck him in the face, across the bridge of the nose, and over the right eye. He was "knocked out" for a few minutes, and suffered severe headache following the injury. He went immediately to the first-aid station and was given emergency treatment. The following day he reported to the first-aid nurse that he felt some better, but still suffered from headache. He continued at work suffering continuous headache, which he attributed to the noise of the machine. After three days, headache persisting, he drew his time and left the job without again visiting the first-aid station and without the knowledge of the first-aid nurse.

After leaving the work, he drifted about the State, seeking to obtain light employment, suffering continuous headache, until the latter part of May, when he had to leave a job near Fresno, and, his money having given out, he applied for admission to the Fresno County Hospital. He was found there about July 1, by the legal department of the company for which he had worked at the time of injury, and the medical department was notified.

When visited at the hospital, he was found to be suffering intense pain, especially in the right frontal and temporal regions, with a feeling, as he described it, "as if it would sometimes tear the top of my head off." This pain extended entirely around the right orbit. There was intense photophobia of both eyes, but more especially noticeable in the right. Conjunctival inflammation was very marked. This condition had obtained for several weeks, and treatment had been directed toward the correction of "herpes of a branch of the fifth nerve."

He was at once removed to another hospital and placed under the care of Dr. D. H. Trowbridge, where under active treatment the eye condition rapidly improved, and he was discharged from treatment about September 15, 1921.

At the beginning of this treatment, general physical examination revealed nothing. Wassermanns were negative, as were all other laboratory tests. Special examination: Vision, R. 20/200; L. 20/20. X-rays of the skull were negative for fracture. There was impairment of touch, pain and temperature sense in the distribution of the right infra and supra-orbital nerves.

After discharge, he worked for a time on a

* Presented to the Section on Industrial Medicine and Surgery at the Fifty-second Annual Meeting of the California Medical Association, San Francisco, June, 1923.

mining claim in Northern California. On October 25, 1921, he returned, complaining of diminishing vision and continuation of pain about the right eye, the right frontal and temporal regions, with a sense of numbness. In order to check up the case as to compensability, he was sent to Drs. Walker and Walker for examination of his eyes. The report of this examination showed: "Vision, R. 3/60, L. 6/60 without glasses, and with glasses, R. 5/60, L. 5/15. Ophthalmoscopic examination revels right eye, cornea slightly roughened, iris reacting well to light, vitreous very hazy and full of large dark floating bodies, with a very blurred picture of the retina and disc. The left vitreous also very cloudy and full of floaters, with one patch of choroiditis to the temporal side of the macula region. Both eyes have the appearance of having been struck by some object on the outside, which has disorganized the vitreous to a great extent."

Following this examination and one month later, he was sent to San Francisco, where he was examined by Dr. Otto Barkan, who reported as follows: "Both eyes show marked myopic astigmatism. Vision, right, —3.5 equals 1.10; left, —3.5 equals 3.10. Without correction, right, J —4; left, J —7. Correction of astigmatism improves vision with difficulty. Both cornii show old scars, and corneal astigmatism is due to injuries with foreign bodies at some previous times. There are small pigmented deposits on the posterior surface of the cornea, showing the scars must be old, presumably antedating the injury of March, 1921. Ophthalmoscopic examination shows some coarse vitreous opacities and atrophy around the disc, and increase of pigment in the macula region. In the left eye also a small sclerosed patch, one disc diameter from the macula. All these changes are due to myopia of long standing and have nothing to do with the accident. Conclusion: The reduction of vision in both eyes, right more than left, is due to cornal scars, and to myopic changes, the former playing the greater role in the right eye. As the patient claims to have seen better with the right eye before the accident, it may have been that some scarring might have been caused by same. The major part, however, I believe to antedate the injury of March. In all other respects the ocular findings, visual field, etc., are normal. The right infra-orbital nerve is somewhat tender on pressure. The pain described by the patient, however, is not caused by ocular involvement."

The results of these examinations, together with absolutely negative general physical findings, left us no nearer the solution and diagnosis of the trouble. Further consultation was decided upon, and he was entered as a patient in the University Hospital, San Francisco, under Dr. Fred H. Kruse, for the purpose of observation, examination and diagnosis. He was examined here by Drs. Kruse, Naffziger, Abel Johnson and Ruggles. General physical and laboratory findings were all negative. X-rays of the skull showed no evidence of fracture at the base, or through the mastoid or ear regions, but there was questionable evidence, in Dr. Ruggles' opinion, of a small linear fracture of the inner table over the right eye. This opinion was not concurred in by Drs. Kruse and Naffziger. A fracture so localized would not give the symptoms complained of, viz., pain about the orbit, and right frontal and temporal regions, with numbness extending over the right temple.

Dr. Naffziger, after some consideration, came to the conclusion that the nature of the pain, the distribution of the sensory disturbance, could only be accounted for by injury to the sensory root of the fifth nerve, where it lies in the petrous portion of the temporal bone, that there might be a very small fracture, not demonstrable by X-rays, or by a small clot at that point, caused by the accident.

It has not before been mentioned that specialist examination in 1921 revealed the presence of a small discharge from the right ear. Dr. Johnson's examination, at University Hospital, confirmed previous eye findings. The only demonstrable infection was found in this otitis media purulenta, which at this time existed in marked degree, with the probability that the mastoid cells were involved to some extent. The vestibular apparatus was normal, and there was no evidence of injury to the eighth nerve. Hearing was distinctly impaired on that side. It was Dr. Johnson's opinion that the pain complained of might be due to this infection, and it was decided that the best procedure would be to clean it up first.

The patient was accordingly returned to Fresno, where Dr. Trowbridge performed a radical mastoid operation January 18, 1922. The middle ear was found to be filled with a mass of granuloma tissue, with some involvement of the mastoid cells. Early in the operation the lateral sinus was exposed, but not opened. Post-operative recovery was good, with a radical clearing up of the pain which had continued for so long, in the frontal and temporal regions. Vision improved markedly, to a point where the patient could read comfortably, and he felt better in every way. After about three weeks, however, he began to complain of pain in the right occipital region. At the same time a cough appeared, accompanied by a profuse expectoration of pus, and a septic temperature, and repeated chills. Treatment was unsuccessful until an autogenous vaccine was used, when recovery was fairly rapid, so far as his septic condition was concerned. The pain continued in the occipital region, and Dr. Trowbridge became convinced that the lateral sinus must be infected, and an exploratory operation was decided upon. The sinus was exposed at the site of original operation, and found to be thoroughly organized into a degenerating clot. This was followed posteriorly, almost to the torcular herophili (about one inch). The clot was removed and the sinus packed. At the same time, the internal jugular vein was removed down to the clavicle. Convalescence was somewhat slow, although the occipital pain disappeared, and the patient was finally discharged in May, 1922.

Since then he has been working on his mining claim, intermittently, and for some time was entirely free from pain, but has never been relieved of the numbness in the distribution of the infra

and supra orbital nerves. Vision is distinctly impaired in both eyes, more in the right. Hearing is entirely lacking in the right ear, and somewhat impaired, although to no great extent in the left.

Our belief that the pain, frontal and temporal, had been due to the middle ear and mastoid involvement, because it was relieved following operation, has been shattered. During the past several months this pain has returned, relief having been obtained only during a period of about three months.

This man has been a model patient, co-operating in every way, to the fullest extent, in our efforts to afford him relief, and is distinctly not a neurotic type, so that any element of psychosis or psychoneurosis may be disregarded in the consideration of findings.

The conclusion in this case must be that the pain and sensory disturbances are due to some injury to the sensory root of the fifth nerve, and not to any middle ear or mastoid involvement; that the visual defects are due to myopic astigmatism, pre-existing, although the company has accepted liability for reduction of vision, as well as loss of hearing in the right ear. There is a question whether the otitis media, pre-existing, was lighted up by the injury.

No prognosis can be given as to whether recovery will occur, or of the factor causing the pain and sensory disturbances.

206 Edgerly Building.

DISCUSSION

D. H. Trowbridge, M. D. (Fresno, Calif.)—When Frank H. first came under my observation he was a patient at the Fresno County Hospital. I found him almost blind, suffering from a chorioretinitis with cloudy vitreous, both eyes. He complained of considerable pain, particularly in the right side of the head. Under treatment this cleared up and his vision became very much better, although he still complained of pain. At this time he was also suffering from a chronic suppuration of the right ear. This condition also cleared up, and he was discharged as practically cured.

It was impossible to state whether the injury he suffered while in the employ of the San Joaquin Light and Power Company was the cause of his trouble, but the company gave him the benefit of the doubt and settled all expense incident to his treatment.

Although he was discharged as practically cured, he still complained of pain in his head and was examined by one or two specialists in San Francisco, who were of the opinion that the pain was due to the chronic suppurating right ear, although there was no tenderness, no vertigo, nor any other signs to indicate serious involvement.

Hearing for the watch was very deficient, being 1/72 in either ear. Hearing for voice sounds was very good.

Acting on the advice of our confreres in San Francisco, we decided to do a radical mastoid operation. The operation elicited very little of interest except there was no sequestrum present, and a general sclerosed mastoid. The lateral sinus was notable for the fact that it was placed particularly near to the external auditory canal rather farther forward than usual. It was exposed, but not injured in any way during the operation. The patient made an uneventful recovery, but in about two weeks he suffered a marked chill, followed every other day by a succeeding chill until he had suffered three. This made us suspicious of a lateral sinus infection, although the chills occurring at such regular intervals suggested that the trouble might be due to malaria. Blood test was negative for malaria plasmodia; patient seemed very toxic, white blood count being 16,000; furred tongue, etc., and inasmuch as he suffered another chill we decided the trouble must be sinus thrombosis. He was taken to the operating-room and anesthetized by Dr. Mordoff. I then opened the lateral sinus and found it full of clots. This was an extremely interesting case, inasmuch as the entire lateral sinus was thrombosed and was dissected out entirely back to the anastomosis with the torcular herophili. Before removing the lateral sinus I removed the internal jugular vein, first ligating it above and below. The wound was closed and the patient made an uneventful recovery. The hearing in both ears remains about the same. I think patient still complains of some pain, so it is still a question whether or not the pain was entirely due to the chronic middle ear trouble. The right ear at this time is perfectly dry, all suppuration having ceased.

TUBERCULOSIS IN PREGNANCY

By GEORGE H. EVANS, M. D., San Francisco

There can be no question but that pregnancy in the tuberculous woman constitutes a serious complication fraught, oftentimes, with disastrous consequences to the patient. This statement has become almost axiomatic, and without careful analysis it would seem that a corollary of this would demand in all such cases prompt termination of pregnancy in the interest of the mother.

Unfortunately, the duty of the therapeutist is not so clearly defined, and while there is general acceptance of the premise, much confusion exists regarding the indications for radical treatment.

A consideration of this question presents various angles other than purely medical, for there are in each case sociologic and economic problems to be faced which qualify our decision in the given patient.

In order to better comprehend the subject, it may be well to briefly consider our attitude toward marriage in the tuberculous. The dictum of the French clinicians: If a girl, no marriage; if a wife, no pregnancy; if a mother, no suckling is, in the main, correct. Ordinarily, one must agree that the actively tuberculous woman is poorly equipped physically to undergo the stress of marital life with its attendant child-bearing. Economic factors must, however, play an important part in reaching a decision in a given case. The woman, who by reason of her social and financial status is losing the fight against the progress of her disease, will unquestionably be benefited by a marriage which will place her in a more comfortable position, with improved hygiene and living conditions, under the fostering care of her protector. Those of us who have before us, constantly, tuberculosis in the working woman need no emphasis of this fact. Our clinics abound with those whose sole hope of arrestment of their disease can only be brought about by a change in their conditions of living. Indiscriminate prohibition of marriage to tuberculous women is unjust. This, of course, does not apply to those acute or rapidly progressive, or far advanced cases, but in the latent, slightly active, or old fibroid cases where economic and social conditions are favorable, one should hesitate before refusing consent.

The danger to the child born of a tuberculous

mother must have consideration in any discussion of this subject. It is generally admitted that placental transmission of tuberculosis is so rare as to be considered negligible. Modern students of phthisiogenesis are agreed that the child is born free of tuberculous infection, and, contrary to a popular impression, usually of the same weight and vigor as those born of non-tuberculous mothers. The danger to the infant resolves itself into the preventive measures which should be taken at birth. These necessitate the immediate removal of the new-born child from the infected mother and its feeding by a wet nurse, or proper artificial feeding. Drastic though this procedure may appear, it is justified by results, for most of these infants may be safely brought up in this way. Any measure short of this exposes the infant to almost certain massive infection. The difficulty of carrying out this radical measure is freely admitted, for we have not yet reached the point where the prevention of tuberculosis in the infant is carried out with the intelligence displayed by the dairyman in protecting his calf from its diseased mother.

The non-pregnant tuberculous woman presents a problem where, fortunately, we are able to advise with directness. Experience clearly demonstrates the harmful effects of pregnancy on the tuberculous lesion. To quote from Douglass and Harris:

"There are numerous factors responsible for the aggravation of tuberculosis during pregnancy and the puerperium. Pregnancy makes increased demands on metabolism, oxygenation and innervation, on circulation and elimination. The point of least resistance, in these cases a quiescent pulmonary lesion, is put to the test and the latent tuberculous focus breaks down. The presence of the gravid uterus interferes with respiration and the aeration of the blood; the nausea and vomiting of pregnancy tend to interfere with assimilation; the prolonged muscular exertion of labor, the loss of blood and its attending exhaustion, the use of the anesthetic, auto-infection by the aspiration of infected material from an old focus in the lung into healthy portions, and the possibility of toxins being thrown into the system from the placental site are all serious factors. In addition to these factors, we have in most cases the strain of subsequent lactation, and the responsibility incident to the care of the child.

"Occasionally we see that, during the pregnant state, the tuberculous process apparently improves and the general condition of the patient is strikingly ameliorated. This is true, however, only of the fibroid type, which (it has been observed) is hardly modified at all either during gestation or after delivery. This is responsible for the traditional view held until recent times that pregnancy may sometimes arrest tuberculosis, and because of this belief writers of former generations (like Cullen) recommended marriage to tuberculous women. Grissole, however, in 1849, published an article of such force that it shook the dogma which until then had remained firm."

Our position in these cases should be uncompromising. All tuberculous women should avoid pregnancy unless the disease is in an early stage and has been arrested for at least two years. Even then it should be advised against unless the social and financial status allow of the proper care of the patient during pregnancy and the puerperium, and the carrying out of the proper preventive measures in the interest of both mother and child.

What to do with the tuberculous woman who becomes pregnant, or the pregnant woman in whom tuberculosis makes its manifestations for the first time, or the woman with arrested tuberculosis who suffers a reactivation of her old tuberculous process during the early months of pregnancy, is a problem frequently confronting the physician. Norris and Landis quote Bacon, who, in 1913, stated that 32,000 tuberculous women become pregnant annually in the United States, and that between 44,000 and 48,000 women of the child-bearing age die of tuberculosis every year.

In reviewing the literature on the subject for the last few years, one is impressed and confused by the differences in opinion as to the effects of tuberculosis on the pregnant woman, as personal experiences differ. Earlier observers taught that tuberculosis had a beneficent influence on the pregnant state, and today there are many who believe that, except in the far-advanced disease, pregnancy and child-bearing do not exert an unfavorable influence. On the other hand, there are those who demand the immediate termination of pregnancy in all cases of tuberculosis. Schauta has described three groups: The first would abort every woman that has tuberculosis; the second would abort no woman, but would give her the best of treatment and allow her pregnancy to progress; the third would treat every case individually. The latter would seem to be the plan that conservatism would suggest.

In order to determine the course to pursue in a given case, it is necessary first to determine the injurious effects of pregnancy on the tuberculous lesion. Here a careful study of the literature must impress one with the fact that pregnancy can only be looked upon as a serious complication interfering with the patient's chances of improvement in direct ratio to the activity of the tuberculous lesion. Norris and Murphy recently have compared a group of tuberculous non-pregnant women from the Henry Phipps Institute, with a group of pregnant tuberculous women, with results which are interesting. Of the non-pregnant women there was improvement in 45 per cent as compared with 18 per cent of the pregnant ones. Thirty-four and seven-tenths of the non-pregnant died, while 44 per cent of the pregnant ended fatally. This was an analysis of 104 cases. Unfortunately, for a statistical study, therapeutic abortion was only performed in seven cases.

In which cases should pregnancy be terminated as a therapeutic measure and when can pregnancy progress to completion are questions difficult to satisfactorily answer. Regret at consenting to abortion, in my personal experience, has probably been as frequent as regret at having withheld consent to a procedure which might have improved the condition of the patient, and possibly avoided a fatal

outcome. We are unable at present to differentiate between the cases which will stand the effects of the strain of pregnancy, and those which will not. Notwithstanding this, there are certain indications for interference which it may be well to emphasize.

In the early months of pregnancy, should tuberculous activity first present, the duty of the attendant is clearly to empty the uterus of its contents and place the patient under the approved modern treatment for the actively tuberculous. According to Norris, 65 to 70 per cent of such cases will be benefited, provided this treatment is *applied promtply*. European authorities, particularly Kehrer, claim a much higher percentage of improvement through early therapeutic abortion, even in the first and second stage cases.

Undoubtedly, results are largely dependent on the method of procedure. Curettage in the first six to eight weeks and later vaginal hysterotomy under gas and oxygen anesthesia are the methods of choice.

In the farther advanced cases, and in all those where pregnancy has advanced to the fourth or fifth months, operative measures will usually prove useless, and in the main harmful. This does not mean that the condition of these patients is a hopeless one. It is here that modern scientific sanatorium care is demanded. The tuberculosis sanatorium of the future must have as an essential part of its equipment a maternity department where approved care can be given the pregnant, and the proper facilities provided for delivery and safe progress through the puerperium. Aside from the hygienic rest regimen, suitable cases should be submitted to lung compression. It appears to me that here lies one of the most valuable indications for this therapeutic procedure. Undoubtedly, one of the chief reasons for the increased activation of tuberculous lesions at the time of confinement lies in the violence inflicted on the diseased lung consequent to the abrupt displacement of the diaphragm coincident with the emptying of the uterus. Pneumatic compression will go far in avoiding the sudden expansion of the lung, preventing the attendant absorption of toxic material and possibly passage of bacilli into the blood stream and lymph channels. Labor should be made as easy as possible and, in many instances, induced two weeks before term.

Aside from the danger to the child already referred to, the welfare of the mother demands that she be spared the strain attendant upon the nursing and care of the infant.

Missing the Trees in Studying the Forest—In this modern day of big things, when our eyes are so much on mass movements and governmental and social machinery, the individual has almost been lost sight of. We see the perspective, and we fail to discern the finely chiseled features of the man standing among the many. In thinking of society so much, we think too little of the individual. Individuals make society; society does not make individuals.—(W. S. Rankin, Hygeia, September, 1923.)

Life, like heat, is a mode of motion, and progress consists in discarding a good thing when you find a better.

FRAUDULENT DIPLOMAS AND STATE LICENSES

By C. B. PINKHAM, M. D.
(Secretary Board of Medical Examiners)

The medical profession of the State of California no doubt is interested, as is the profession throughout the United States, in the recent exposé of the issue of fraudulent diplomas and the granting of questionable licenses to practice by certain examining boards in the United States.

The colleges recently reported as having issued questionable diplomas are the National University of Arts and Sciences Medical Department, the St. Louis College of Physicians and Surgeons, both located at St. Louis Mo., and the Kansas City College of Medicine and Surgery, Kansas City, Mo.

It is related that there has been a wholesale traffic in high school credentials, university degrees, and medical diplomas carried on by a certain clique in Missouri reported as composed of Professor W. P. Sachs, "former examiner for the Missouri Department of Public Schools and former dean of the National University of Arts and Sciences of St. Louis"; Dr. Ralph A. Voigt, spoken of as the master-mind of the ring and reported registered as a graduate of the St. Louis College of Physicians and Surgeons, St. Louis, Mo.; Dr. Robert Adcox, retired physician and surgeon of St. Louis, and Dr. D. R. Alexander, dean of the Kansas City College of Medicine and Surgery. From this clique, a St. Louis Star reporter, Harry Thompson Brundidge, under the name of "Harry Thompson," purchased:

1. Credentials evidencing the equivalent of a high school diploma.

2. A diploma of the National University of Arts and Sciences Medical Department dated May 23, 1916 (the institution having closed in 1918).

3. A diploma of the Progressive College of Chiropractic dated Chicago, Ill., March 1, 1923.

It is further related that Dr. D. R. Alexander, dean of the Kansas City College of Medicine and Surgery, has been giving out diplomas of his school in a questionable manner, having some arrangement whereby graduates of his school successfully passed the Eclectic Board of Examiners of the State of Connecticut, the questions of examination reported as having been obtained in advance.

According to Governor Templeton of Connecticut, who checked over several examination papers written by various applicants before the Eclectic Board in his State, the answers to questions of these several applicants were exactly alike word for word, showing a preconcerted plan which has been confessed by certain successful applicants.

Past reports allege questionable procedure in the instance of the Eclectic Examining Boards in Arkansas, Florida, and Georgia.

The profession in California is interested in knowing whether any of the products of the diploma mills have gained entry into California, and it is the belief of the examining board of this State that we have not been imposed upon, for the Board of Medical Examiners of California carefully guards

against imposition by individuals who present either a fraudulent diploma or a certificate issued by any medical examining board shown to be involved in the issuance of questionable licenses.

A recent survey of the records of the Board of Medical Examiners, both as to applicants for written examination and as to applications based on licenses issued by other States, discloses that:

1. During the past ten years graduates from the St. Louis College of Physicians and Surgeons, St. Louis, Mo., have been admitted to written examination in California as follows: 1915, 1 passed (graduated 1910); 1916, 2 passed (graduated 1910 and 1915); 1923, 1 failed.

2. During the past 10 years 32 graduates of the College of Physicians and Surgeons of St. Louis, St. Louis, Mo., have been licensed on reciprocity from the following States. Of this group 29 presented diplomas dated PRIOR to 1917: Colorado, 1; Georgia, 2; Illinois, 8; Indiana, 1; Iowa, 2; Missouri, 13; Nebraska, 1; Oregon, 1; Pennsylvania, 1; Washington, 2. Total, 32.

3. No graduates from the Kansas City College of Medicine and Surgery have been admitted to a written examination in the State of California from 1914 up until December 31, 1923. However, three have been admitted during that interval on reciprocity based on certificates from Arkansas in 1917.

The Pacific Medical College of Los Angeles, whose diploma has never been recognized in California, has been mentioned in connection with the diploma mill.

Reporter Harry Thompson Brundidge, during his negotiations for a medical diploma, stated that he had received a letter from Dr. Ralph Voigt containing the following significant sentence: "I have gone to the west coast for completed stock so you can have less trouble and be better off"; that he later called on Doctor Adcox, who handed him a telegram from Voigt reading in part as follows:

"Alex agrees to issue final paper on Pacific for honorable cause two fifty."

Doctor Adcox then made the following explanation of the message:

"Ralph's telegram means that Doctor Alexander has agreed to give you a diploma based on the credits obtained for you by Ralph from the college on the Pacific Coast, but that he wants $250 for doing so." (St. Louis Star, October 18, 1923, p. 2, col. 4.)

Thompson stated that he later went to Kansas City, and met Doctor Voigt, who made the following statement during the ensuing conversation:

"I'm looking for your diploma in every mail. . . . That bird in California certainly works slow, but he's certain, and the stuff he puts out is A-1. Dr. Alexander has promised to issue another diploma to back up the California degree." (St. Louis Star, October 19, 1923, p. 3, col. 6.)

The Kansas City, Mo., Journal of October 20, 1923, published an interview with Charles A. Johnson, a student and helper at the Kansas City College of Medicine and Surgery, who relates:

"In the room I used as an employee of the college, I (Charles Johnson) heard the sale of two diplomas discussed by Doctor Alexander and pupils in the school (Kansas City College of Medicine). These diplomas were to be purchased for $300 each and were to be on the Pacific Medical College of Los Angeles, Calif., which went out of business in 1916, I understood."

It is interesting to note that United States Senator Royal Copeland, M. D., has caused to be introduced in Congress a resolution calling for an investigation, specifically as to whether or not the United States mails have been used in a scheme to defraud, i. e., by carrying on negotiations in relation to the sale of fraudulent diplomas.

As a sequel of these disclosures in the issue of fraudulent diplomas and State certificates, it is related that Connecticut has revoked some 30 licenses to practice in that State, with more to follow; that New York has undertaken a "house-cleaning"; that the authorities of Arkansas have joined, and that other States will follow.

The Board of Medical Examiners of California has but recently been brought into court to compel admission to examination of a graduate of the Kansas City College of Medicine and Surgery, whose dean, D. R. Alexander, was reported in the St. Louis Star of October 15, 1923, as arrested in connection with the fraudulent diploma expose.

135 Stockton Street.

PECULIAR MANIFESTATION OF FOCAL INFECTION. TREATMENT AND APPARENT CURE. THREE CASE HISTORIES *

By WILLIAM A. SHAW, M. D., Elko, Nevada

There are few physicians and surgeons in the State of Nevada who do not come in contact considerably with people of Spanish descent. I am presenting three cases of apparent focal infection with peculiar symptoms, all born in Spain.

Case S140—Juan Assoriguina was brought to me by several fellow countrymen who hoped that in some way I could prevent him from being taken to an insane asylum. The man presented a variety of melancholic symptoms which at times bordered on decided insanity. Physical examination was negative, except for a marked tonsillar infection with hypertrophy. There was a moderate leucocytosis. After some observation I could offer nothing except to advise tonsillectomy. This was done and the patient given ordinary eliminative treatment. He left the hospital one week after the tonsillectomy, apparently normal in his mind within a month and today is practically a normal citizen.

Case EGH594—Louis Guisasola was brought to me by a friend March 1, 1923, complaining of forgetfulness, marked melancholia and nervousness. His friend stated that he had been melancholic for several months, for the past month becoming decidedly worse and at times having a tendency to suicide. Physical examination disclosed nothing, except a marked lacunar tonsillitis, chronic hypertrophic type, and blood examination a moderate leucocytosis. After considerable observation I ad-

* Read before the Twentieth Annual Meeting of the Nevada State Medical Association, Reno, September 28 and 29, 1923.

vised tonsillectomy, and this was done April 24, 1923. The patient left the hospital the day following the tonsillectomy, was given no other treatment, but was observed for a period of several months. He is now herding sheep and is, according to report from his employer, doing well.

Case EGH665—Pedro Usatorre. This man was brought to me by his uncle, who stated that he had been out of his mind for several months and that on the morning when he was brought to me he had been found in a local barber shop with a knife in his hand, stating that he was going to kill anyone who opposed the idea that he was the chosen servant of God. This patient had a wild, staring look from his eyes, flushed cheeks, a marked follicular tonsillitis, a slight rise in temperature and a very moderate leucocytosis. He was placed in the hospital, and under eliminative treatment the temperature subsided, but he still had a marked variety of hallucinations, delusions and illusions. Two days after admittance to the hospital the tonsils were removed. He left the hospital four days later and reported daily for observation and was treated with a sedative current of electricity for several weeks. He gradually improved insofar as the nervous symptoms were concerned, until today he is practically normal.

The laboratory report from each patient was chronic amygdalitis, hypertrophic and encapsulated.

This small but interesting group of cases was emphasized more strongly in my mind on account of the fact that there seems to be a rather high percentage of insanity among the Spanish people, and particularly the sheep herders in this country.

The only deductions I can draw are that, in a climate like ours in Elko County, where tonsillitis and various throat inflammations are prevalent, these men become subject to a chronic focal infection, namely, tonsillitis, absorption from which causes symptoms of auto-intoxication and a resulting influence on the minds of these subjects, with a train of symptoms such as is outlined in these case histories. These men were all sheep herders and consequently were much alone out in the hills with their sheep. My opinion is that the condition resulting from focal infection made them feel weak and they, being alone and having considerable time to study their own feelings, and being ignorant of the cause of their inability to properly perform their work, became infected, so to speak, with the idea that they were going insane and did become temporarily so.

Oculists, Optometrists and Optical Firms—Epoch-making acts usually are not recognized as such until long after their occurrence. As a rule, their significance is appreciated only after their effect upon subsequent events has had time to manifest itself. But it is possible that we who are at present engaged in the practice of ophthalmology may be witnessing such an epoch-making act, in the position recently taken by a well-known wholesale optical house. Briefly stated, this firm has closed out all of its accounts with optometrists, and has announced that it will fill prescriptions only when they are signed by members of the medical profession. In addition, it proposes to inaugurate a campaign, by means of which the public will be educated as to the differences between oculists and optometrists, and the essential limitations of the latter.

Heretofore, oculists have always been on the defensive against the attacks of the optometrists. In common with other "get-knowledge-quick" groups of pseudo-medical practitioners, the optometrists have been waging an offensive (in both senses of the word) campaign to obtain legal recognition in the several States of the Union, and hardly a year passes without the oculists of some State being compelled to appear before its legislature to combat their activities, sometimes, unfortunately, to no avail. Whenever the oculists have appeared in an active capacity, it has been before some medical society or in some medical journal, informing their confreres of facts which they already know. They have been barred from the public press, partly from fear of appearing unethical, and partly because the public press, from motives of self-interest, or otherwise, has refused to present their side of the question. This anomalous position has long been recognized, and at the 1921 meeting of the American Academy of Ophthalmology and Oto-Laryngology, a committee on publicity and service was appointed to consider the question of the proper method of acquainting the public with necessary medical facts. This is a step in the right direction, and if it is assisted by the action of the non-medical organizations, so much the better. The present status of refraction is an evolution from the days of the itinerant spectacle vender; but the instruction of the consumer has not kept pace with the progress of those whose duty and privilege it is to supply them with correcting lenses. Anything which tends to alter this state of affairs should be welcomed.

Another phase of this firm's action is its refusal to supply lenses to optometrists. Oculists in the smaller cities, and those in the larger ones who supply their patients with lenses through the medium of wholesale optical houses have been forced to obtain such lenses, etc., from the same firms which supply optometrists. Not only is this true, but it is stated that some firms make a special, lower price to optometrists, thus introducing the element of unfair competition. Optometrists are organized for action; oculists for science. If oculists would realize what a force their united numbers could exert, by patronizing firms which cater exclusively to them, a revolution would be brought about in the attitude of other firms. They would realize that oculists would have a choice between "fair" and "unfair" firms, and many of them would undoubtedly swing into line. A decided check would be given to the activities of optometrists, for when an army is engaged in preventing the turning of its flank, it has little leisure for aggressive action. When a firm states by words and acts that it does not desire the accounts of a certain group of men, such action exerts a moral force beyond its immediate and direct results. In defending themselves from the implications produced, optometrists will hardly have time to attempt new inroads on the medical profession.—C. L., in American Journal of Ophthalmology.

A modified Rib Resection Operation for Empyema—To secure proper drainage in empyema, George Schwartz, New York (Journal A. M. A., December 15, 1923), believes that rib resection is necessary. Osteomyelitis of the rib occurs in 4 per cent of the cases, resulting in long-standing fevers, anemia and protracted convalescence, and requiring a secondary operation for a cure. The reason why necrosis of the rib occurs is that the open ends of the rib are exposed, are constantly being bathed in pus, and are involved by continuity of the infection. Heretofore, no means has been devised of sealing up these open ends to prevent contamination, thus closing up an avenue of infection that gives rise to a general sepsis. The operation is very simple and takes only a minute more than the usual procedure. It entirely removes the 4 per cent chance of a rib necrosis and reoperation, and may save months in convalescence. The bone-wax seals up the end of the open rib, and the muscle-flap gives added protection.

EDITORIALS

OUR GOVERNOR'S ANTI-QUACK ANNOUNCEMENT

If press dispatches are accurate, Governor Richardson has at last been aroused by the well-directed efforts and publicity of the League to the menace of quackery in California. We read in the press that our Governor is now going to weed out all impostors, fakes and quacks and close all "diploma mills." If this be true and truly carried out, we will review the Governor's good work gladly and lead the chorus in peals of praise.

Although we are eager to accept the anti-quack announcement at face value, facts prevent us and demand a large discount. We recall that one of Governor Richardson's administration bills, introduced at the last Legislature, would have placed the State Board of Medical Examiners, Board of Dental Examiners, State Board of Pharmacy, and Board of Veterinary Medicine under a lay director with power to issue licenses to and suspend or revoke licenses of the members of the various professions named. We remember that when the Governor's budget was the storm center of discussion, during the weary wasteful days of the last Legislature, the Health Board and the Board of Medical Examiners protested cuts made in their appropriations and stated that amounts allowed by the Governor would prevent them from carrying on their work with any degree of efficiency. We recall his veto of the anti-quack bill and the excuses offered. No one will question that the reduced activity of the State boards against unlicensed "doctors" during 1923 is in strong contrast to the Board's activity of 1922 and preceding years. It is stated on high authority that the Board's activity had to decrease because of lack of financial and other support.

Whether the Governor is now merely making a graceful "gesture" or is really changing his attitude will be determined by deeds and not by his announcements. In reference to the quackery problem, the road of duty is before the Governor plain and direct. Those entrusted with official power are false to their duty and responsibility if they license the uneducated and untrained, the mentally and morally unfit; but they are more false to duty and invade the rights of the citizens if they tolerate the unlicensed to prey upon the public.

If the Governor really intends to carry out his anti-quack announcement and protect the public, he will start right by prosecuting all those who are attempting to treat for money, diseases, injuries and deformities of the men, women and children of California in defiance of the laws of California. No sensational quiz or probe is required, for the names and addresses of many such "doctors" must be known to the Board. To find the names of a charming variety of unlicensed "doctors," who are apparently practicing in defiance of law with impunity and immunity, is not difficult.

As far as we are able to observe, such "doctors" are undaunted by the Governor's anti-quack announcement and continue to let their electric lights shine before men and their ads attract the shekels.

No matter how many gubernatorial "gestures" are made, and no matter how much partisan applause they receive, pantomimic warfare will not protect the public from "diploma mills" and the unfinished products which they are grinding out. It requires real laws and real enforcement of real laws to protect the public from misrepresentation, imposition and fraud of the many varieties of spurious healers and cultists masquerading under the title of "doctor." The loose use and abuse of the word "doctor," and the deplorable condition which enables a so-called college or "diploma mill" to be legally chartered for less money than a quack receives for one of his dangerous treatments, must be remedied by the next Legislature before any anti-quack announcement can be considered seriously.

SAFETY OF THE HYPODERMIC ADMINISTRATION OF DIGITALOID PREPARATIONS

The administration of the digitaloids subcutaneously is almost universally held to be undesirable, if not unsafe, because of the pain and the local inflammatory reaction, resulting in abscess formation. This is true especially of strophanthin; hence, the usual practice of intravenous injection of the digitaloid glucosides, or administration of the galenicals and dry digitalis by mouth. The intravenous route has its obvious objections, and the oral may be slow, irregular and inefficient. The hypodermic and intramuscular routes would offer several advantages, namely, ease of administration and promptness of absorption, especially in emergencies and in conditions precluding administration by mouth, and in such conditions as stasis of the hepatic and portal circulations. What has been hitherto thought undesirable and unsafe has been rendered practically feasible and safe by the recent work of Freud and Meyer of the Pharmacological Institute in Vienna on animals and patients.

Freud and Meyer showed that the digitaloids can be injected subcutaneously for their usual effects, and with impunity. This was accomplished by adding local anesthetics to the digitaloid solutions to be injected. Freud and Meyer used novocain (procain) and alypin in 5 per cent strengths. Firstly, they showed that dogs, which were found to be highly susceptible to experimental abscess formation from digitaloids alone, could be injected with mixtures of the same digitaloids and the anesthetics without local inflammatory reaction. The digitaloids that were tested were digitoxin, digipuratum, digalen, strophanthin, cymarin, and squills. All of these, except digitoxin, were injected subcutaneously together with procain (0.02 to 0.03 gm.) without producing pain and local inflammatory reaction. Then the Viennese pharmacologists tested the mixtures on patients with multiple sclerosis, neuritis and hemiplegias, and confirmed their results on dogs. For this purpose one side of the

body was used as control (without the anesthetic) and the other side was used for testing the digitaloid-anesthetic mixture, using pain and local inflammatory reaction as criteria. Under these conditions Freud and Meyer found that only 25 out of 138 patients injected with digitaloids together with local anesthetics (usually 5 per cent procain) showed evidences of inflammation, while 32 out of 37 controls without anesthetics showed marked inflammatory reactions. Strophanthin was injected together with procain in 55 out of 63 patients without local inflammation and pain.

Freud and Meyer conclude that digalen, digipuratum, squills, cymarin, and strophanthin can be injected subcutaneously without irritant effects, and that the indications for therapy of cymarin and strophanthin are extended and their use made easier and safer. In view of the practical importance of the subject, confirmation of these results is highly desirable in cases without the limitations enjoined by disease in the series employed by Freud and Meyer.

Freud, P. and Meyer, H. H.: Deutsch. med. Wochn., 1922, No. 37, "Über nicht zündende Subkutaninjektion entzündlich wirkenden Heilmittel."

ARE OPTOMETRISTS TECHNICIANS OR DOCTORS?

There are two classes of "optometrists." Members of one of these groups consider themselves technicians or prescription opticians of other days. The other and far larger group consider themselves "eye specialists." They do not confine their activities to the technical work of correcting by glasses errors of refraction in healthy eyes of healthy people. Too many of them are undertaking work which they have not been educated to do with safety.

"Optometrists" who wish to undertake the responsibilities of "eye specialist" should be required to have education comparable to that of other ophthalmologists. The others should continue their very necessary and important work as prescription opticians.

Sad stories are told of the injuries done to citizens, and children in particular, by "fitting glasses" to eyes that would have spoken clearly to the educated person of important diseases calling urgently for skilled care of more than the eye. The use of blue and red light electricity and other forms of therapy, without correct diagnosis of diseases producing eye symptoms as one of their manifestations, is frequently responsible for serious consequences to the patient.

The eyes are most important organs of the body, which cannot be separated into parts for purposes of diagnosis and treatment of diseases and abnormalities by those who have not had adequate education and training in the anatomy, physiology, pathology, and clinical manifestations of disease and abnormalities as they affect the entire human organism.

This is precisely what is being done in ever-increasing volume throughout this country. California is well forward in this movement, as it is in other movements calculated to provide inadequate medicine for the citizens of the State. This situation is destined to do much harm for an indefinite number of years, until the public some day in some way is made to understand.

A particularly discouraging and distressing feature of the problem is the recent action of the great State University in introducing the teaching of this branch of medicine under the department of *Physics*. This is the culmination of years of effort by the optometrists. Heretofore, the faculty of the medical school has insisted that, if optometrists were to be taught to practice medicine or to be technicians in a medical field, they should have adequate special education given by the medical school faculty.

Unquestionably, the department of physics will teach the mechanics of the subject better than it has been taught before. But they and their students apparently fail to understand that only a certain percentage of errors of refraction occur in otherwise healthy people. Honesty and fair-dealing demand that someone should determine before glasses are fitted, whether the eye trouble in any patient requires mechanical correction only. If optometrists wish to make this determination for themselves, they should have more medical education. Otherwise, they should recognize themselves as technicians, as some of them do, and limit their work to the fitting of glasses in patients who have been examined by those qualified to make diagnoses.

Many of the better educated among the optometrists realize their limitations. Some are limiting their work accordingly, and others are taking time to prepare themselves for wider responsibilities by better education.

The larger and more militant portion of their powerful organization are out for further expansion of their legal privileges by political rather than educational prestige. They claim the "eye for the optometrists," and in the language of the street, they are "getting away with it." They have recognition by the State Board of Education. They promote organizations to prevent blindness, give clinics, and otherwise follow the usual channels of publicity and propaganda.

It is exceedingly unfortunate and regrettable that the authorities of the University of California should have endorsed a situation that unquestionably will sooner or later cause them embarrassment.

THE INCIDENCE OF INTESTINAL PARASITES

Under this title there is published in this number of the Journal an article by Marshall C. Cheney of San Francisco, with discussion by Alfred C. Reed, John V. Barrow, and Herbert Gunn. Editorial comment upon the subject is made at this time because it is one that does not receive the attention by physicians in general that it deserves.

Aside entirely from the question of parasitism, there is a great deal of evidence of inestimable value to physicians that may be acquired by careful and accurate routine examination of stools. Such routine examination with appropriate stain-

ing methods will tell a story of the functioning of the intestinal canal that may not be obtained in any other way. As to the presence of parasites of various kinds and their significance, there is room for the accumulation and utilization of much more knowledge than we at present possess.

Amebiasis is far more prevalent in all parts of the world than it is generally considered to be. Its symptoms are exceedingly protean in character and the diagnosis of injury being done by the parasites themselves is not at all easy even in the hands of one skilled in this work. Unfortunately, a half century ago amebiasis was associated in the minds of the public, and even of some physicians, with dysentery. This idea is still too prevalent. As a matter of fact, dysentery, or frequent bloody mucous stools, is a comparatively rare symptom properly chargeable to the ameba. When bloody flux does occur in connection with an infection by ameba it is nearly always due to some concurrent bacterial infection rather than to the ameba.

This is not the time nor the place to go into the question of so-called harmless ameba, further than to state that these parasites, whatever their zoological classification, when persistently present in the intestine undoubtedly produce consequences not yet realized by even the most expert men working in this field. Our study of this particular group of parasites and the pathological conditions for which they are responsible is only in its infancy.

As to the flagellates, again it is doubftul whether any of them are harmless. It is probable, on the other hand, that many of them do not always produce symptoms which we recognize and place correctly. Mass infection undoubtedly has something to do with the distinctiveness with which flagellates manifest their presence, and it probably also has a good deal to do with the question of their relative significance in otherwise healthy people or those suffering from other diseases.

The writer of this editorial has long since been convinced that all intestinal parasites have a very definite influence on the character and virulence of the bacterial flora; on the splitting up and absorption of substances from the intestinal mucosa and upon the mucosa itself, by constant irritation, if in no other way. In view of our present knowledge, it is a little bit hazardous to blame these parasites for a certain group of specific symptoms, and it is equally hazardous in many instances to call them harmless because a certain group of described symptoms are not present.

THE DIPHTHERIA PROBLEM IN CALIFORNIA

During 1922 some 600 deaths occurred from diphtheria in this State. The record to date indicates that approximately the same number will die during 1923. These deaths represent some 7000 cases of this disease, and there probably were that many more carriers, which would bring the grand total of those who had infection up to some 15,000 or more during the year.

All of the deaths could have been avoided and all the suffering of those who did not die could have been avoided, by the application of simple knowledge well and widely known throughout the State. In avoiding diphtheria our people would at the same time avoid the numerous complications and after-effects that have their origin in the primary infection of diphtheria. Of those who recover from the disease, many now go through life with crippled organs, kidneys, hearts, arteries, nervous systems. Not only is the knowledge of how to avoid this disease widespread, but the facts are beyond question.

Would it not be worth while for some of our civic organizations to get behind the boards of health, start an extensive campaign and rid ourselves of this pestilence? Here is a real opportunity for some organization to do some worthwhile work. It would not be spectacular and would have but a small amount of news value, but it would save many lives, besides securing better health for many thousands annually.

THE COSTS OF HOSPITAL SERVICE

One session of the Third Annual Conference of the Hospitals of California was given over to a discussion of the problem of supplying adequate hospital care to those unable to pay the costs of such service. Discussion of the subject aroused wide interest and was freely commented upon in news items and editorials in the press.

A committee was appointed to study the subject and make its report at the Fourth Annual Conference, which will be held in Santa Barbara some time during this year. The committee is already at work, and will shortly send out a questionnaire to all the hospitals of the State asking for certain necessary data for the compilation of the report. An enormous amount of data is already in the files of the Hospital Betterment Service Bureau of the League for the Conservation of Public Health relating to every hospital in the State. However, it has been difficult to get sufficient financial data, and a satisfactory report on the problem will only be possible if the majority of the hospitals will furnish the data requested.

Obviously, the problem of reducing hospital costs cannot be considered without knowledge of what present costs are and at least the principal items which enter into this cost. We must not lose sight of the fact that all hospitals, as individual units, have been studying this problem carefully and taking advantage of every possible short-cut toward the reduction of costs for many years. This, of course, is necessary because even at present rates less than 10 per cent of the hospitals of the State make interest on their investments, much less a profit on the services rendered. The vast majority of them as they are now operated must have assistance in order to balance their accounts at the end of the year.

Any consideration of hospital costs, furthermore, must start with a uniform understanding of what constitutes good hospital service. The minimum requirement is facilities for giving good general hotel care, laboratory services of all kinds, pharmacy services, X-ray services, salaries and other

compensation of house officers, nurses and other employes, and other departments personnelled and equipped to render various other special services.

There has been, and is, considerable complaint from patients against the more or less lengthy list of "extras" that forms part of practically all hospital bills, and certainly forms part of the cost of operating each institution. These same people do not protest particularly when they are assigned a room in a hotel at $4 per day and find on their account when they leave extra charges for food, telephone, messenger, laundry, and perhaps a dozen other services that have been rendered for them. This method of charging and cost accounting is the only fair one that can be instituted. It, of course, would be easy to establish a round figure covering all assembled costs of hospital service, and to quote this as a daily rate to any and all patients. If this were done, patients who have very little service would be paying part of the expenses of those who demand and require a great deal. So we must continue to make hospital bills according to this so-called European plan for the same reason that hotels and other businesses follow this same system.

One great trouble in devising methods for decreasing the cost of hospital service is found in the fact that comparatively few hospitals, including the majority of those operated by the government, have accounting systems that explain in any sufficient detail their financial situation. Inadequate, incomplete and deceptive accounting systems explain to a very remarkable degree the vast difference in the quoted and often-published cost of service to the sick in hospitals, this whether the institution be a so-called State Hospital that proposes to render all service at 62 cents a day or a high-class public or private hospital where the actual costs of service are $5 or more per day.

In order to make its report of any particular value, it will be necessary for the committee to have total costs and the distribution of costs by departments of a large number of hospitals. A few of the principal items to be considered in this respect are:

The value of the hospital site.

The value of the buildings and improvements.

The interest on outstanding debts, whether notes, mortgages or what not.

The interest on bonds for those municipal and other hospitals that are bonded, this interest to equal at least the interest being paid on the bonds.

The amortization charges allocated by months necessary to retire these bonds when they mature.

The cost of repairs, alterations and replacements in buildings, equipment and furnishings, depreciation of plant and equipment.

The above is a list of items rarely given consideration in hospital accounting, and almost never in government hospitals that talk so much of cheap rates and free treatment.

In addition to these items, of course, there must be included information as to the cost in salaries and wages; the equipment and upkeep of each essential department, including X-ray, clinical and pathological laboratories, pharmacy, physiotherapy and other mechanical therapeutic departments; subsistence and dietetics; the expense of setting up operating rooms, anesthesia and anesthetics, and many others. Also there are to be considered the general cost of adequate insurance of all kinds, which is no small item in hospitals; taxes, water, telephones, transportation, housing and other compensation in addition to salary necessary for employes, and numerous other items of professional, technical, and hotel expense.

All of the items mentioned in this general discussion and many others will be incorporated in a questionnaire shortly to be sent to all the leading hospitals, and it is hoped, for the sake of the welfare of the sick and in the interests of economical worthwhile service to them, that the committee may have the co-operation of all hospital authorities and of the public in general.

"FAKE DOCTORS" AND "DIPLOMA MILLS"

The exposure by a newspaper of the sale of high school certificates and medical diplomas in Missouri has grown into a national scandal. The wide discussion of the facts in all varieties of current literature should shock our people into a realization of their neglect of their responsibilities.

The conditions which make this form of trafficking with health a profitable business for the unscrupulous have not been fully brought out, and constructive remedies which, after all, should be the outcome of the publicity have not received sufficient attention.

Four fundamental forces are concerned in the problem of who shall practice the prevention of disease and the treatment of the sick. These are:

Education,

State laws,

Law enforcement,

Moral or ethical activities of medical organizations.

MEDICAL EDUCATION

Under the leadership of the Council on Medical Education and Hospitals of the American Medical Association, and with the co-operation of the Association of American Medical Colleges and the Association of Medical Examining Boards, great progress has been made in establishing high standards for accredited medical schools and for the attainments of the students. The present requirements for accredited schools and their graduates, as well as the machinery by which these requirements are maintained, modified or advanced, are quite satisfactory and are generally understood. The principal difficulty is, that the movement is a purely moral force, established and maintained by physicians and medical schools for their own purposes, and it has no legal standing.

Through the influence of boards of medical examiners and medical organizations, constant attempts have been made over many years to bring State laws into harmony with the moral forces of medicine. No State has laws which back up these

moral forces adequately upon all points. Some States approximate the requirements, but in most of them the "doctors" laws are hodgepodges of amendments and court rulings filled with holes through which the clever rascal can enter and become "legalized" to treat the sick.

The laudable efforts of the American Medical Association and its co-operative bodies to advance requirements in education, educational institutions, State laws and law enforcement are one basic excuse for constant attack upon this organization by every medical charlatan and political trickster in all of the States. This is the principal basic reason for the much-quoted allegation that the American Medical Association is a "medical trust."

STATE LAWS

There are just as many different laws regulating medical education and practice as there are States. Not one is all that it should be, and the frequent changes made in most of them by legislative enactment and court decisions make the situation as complex and difficult as possible. Many informed persons will regret that extensive organized publicity similar to that regarding uniform divorce laws could not be applied to the question of uniform medical practice laws. One excellent movement in this direction is well under way through the activities of the National Board of Medical Examiners. This is another of those moral forces being fostered by medical organizations, whose policies would be endorsed and protected in any adequate State law. This has been done by several States.

The prevailing underlying principle which seems to be reflected in most State laws is that of filtering the end-product, or young graduate, through a political sieve as the proof of his fitness to practice medicine. They do not pay sufficient attention to the character, quality or quantity of the student's education, nor the provisions of his "college," in finances, plant, equipment or personnel, for giving adequate instruction. In California, for example, any five persons can incorporate a "college" or "university" for less than $20, and they can issue legally any diploma that can be issued by any university. There is no adequate legal requirement as to the quantity and quality of physical provisions for teaching nor the attainments of teachers. There are more than a score of "colleges," "schools" and "universities" operating *legally* in this State alone that can award any "degree" they choose. They are awarding "degrees" of D. C., D. O., D. O. M., D. O. S., and others which will permit the recipients to practice medicine under one or more of the numerous boards authorized to grant licenses to treat the sick.

Other laws provide that if one intends to use drugs in treatment, he must have completed a minimum of six years' study above high school. But if one only uses physical agents, whether punching the spine or squirting blue lights on the eye, he is required to study less than two years.

In spite of the charge so frequently made that California is the faker's paradise and the proving ground for "reformers," conditions just as inadequate as ours obtain in a number of other States.

LAW ENFORCEMENT

Even the Volstead Act is being more generally and more effectively enforced than are the laws regulating the treatment of the sick, such as they are, in most of the States. One only need examine the classified telephone directory of most cities to get an idea of the variety and number of unlicensed practitioners. Enforcement of the "doctors" laws is also about as unpopular as enforcement of the Volstead Act. The enforcement in many States is most unfortunately the duty of medical examining boards made up of physicians. If these boards do their duty, the onus of enforcement is charged against the medical profession. If they fail in their duty, the medical profession is blamed for the periodic scandals as they occur. All prosecutions and other enforcement activities should, of course, be in the hands of the police and other State and local law enforcement officers. This would fix the disagreeable responsibilities where they belong and relieve the medical profession of another of the alleged reasons for calling it a "trust."

MORAL RESPONSIBILITIES OF MEDICAL ORGANIZATIONS

The *moral* standards as distinguished from *legal* standards governing the practice of the healing art, including education and regulation of standards of all the agencies of medicine, constitute a great tribute to the American Medical Association and all of its subsidiaries and all of its co-operative contacts. This tribute is all the more impressive when we realize that the majority of the 150,000 educated physicians of the country are members of the organization and recognize the superior *moral* standard rather than any of the lower and usually inadequate standards fixed by law in the various States. Many of the thousands who are not now Fellows of the A. M. A. are eligible and should join their organization. That comparatively small group of doctors of medicine who, although they are privileged by law to practice medicine, are not eligible for membership under our *moral* standard, as well as all the groups of inadequately educated barnacles of medicine, should be made to stand out clearly for exactly what they are.

Our medical associations undoubtedly will stand firmly for the maintenance and constant improvement of our educational, moral and social standards. They undoubtedly will continue active in trying to improve the legal standards until they conform more generally to the educational standards.

Our leaders who have been elected and appointed to positions of trust deserve more wholehearted support and more universal encouragement than they are accustomed to receive.

The present and any other "medical" scandals reflect in a most discreditable manner upon the political and legal machinery of many States, while at the same time they help, by contrast, to show more widely the soundness of our organizational policies and their importance in protecting public health and in providing ethical, adequately educated physicians for our citizens.

If Connecticut, Missouri, or any other State

wishes to safeguard the health of their citizens they can do so by enacting the model medical practice act drawn by the Bureau of Legal Medicine and Legislation of the American Medical Association and by making the minimum educational requirement the degree of Doctor of Medicine from a college accredited by the Council on Medical Education and Hospitals of the A. M. A. These steps and the selection of enforcement officers who will enforce laws will insure the best of protection in public and private health.

WHO WILL EMPLOY AND DIRECT PHYSICIANS OF THE FUTURE?

Physicians who are interested in the general problem of better medicine and better public health for everyone, as distinguished from the clinical side of their work, will get some interesting information from an article by Willard S. Small, dean of the College of Education, University of Maryland, published as Bulletin No. 33 of the Department of the Interior at Washington.

Under the sub-heading of School Health Supervision, Professor Small says that two tendencies are noted in the administrative development of this work. These are "the broadening of the scope of medical inspection into school health supervision, and *recognition of the educational department as the logical administrative authority*." This phase of his subject is further elaborated in the pamphlet.

He recognizes that the public health and medical work among school children is done under four kinds of administrative authority, (a) the educational authorities; (b) public health authorities; (c) private and voluntary health organizations, and (d) multiple authority. He states that administrative control of this particular branch of medical practice and public health is most frequently in the hands of departments of education and least frequently under the control of boards of health.

In his tabulated work he does not distinguish between the medical work done by physicians and that done by nurses.

The author is particularly pleased to note that during recent years most of the new laws and revision of old laws pertaining to health problems of the school specify them as part of the program of departments of education and not of departments of health or otherwise under medical control.

Documents of this character and other release propaganda received by editors from all sorts of sources are certainly interesting to physicians, whether they be practicing preventive or curative medicine, or both as they should be. They indicate very clearly the direction in which medicine in the United States is very rapidly moving.

Stanford University Medical School (reported by W. Ophuls, dean)—The faculty of the Stanford Medical School has recently been especially interested in a possible revision of the pre-medical requirements and of the curriculum in the medical school. So many subjects are now required in the pre-medical curriculum that the students have lost almost entirely the possibility of electing courses that they may be especially interested in. It is hoped that in some way these rather excessive special requirements may be cut down and the students be given greater latitude in their preparation. This subject was discussed very thoroughly at a joint conference of the two medical schools in San Francisco, which was held on October 17, 1923, and there is now a joint committee working on it.

The committee of the medical faculty on revision of the medical curriculum has reported as follows:

The committee recommends—

1. Closer correlation in the work of the various departments and courses, and intra- and inter-departmental conferences on the content and aim of courses.

2. That more emphasis be placed upon the training needed by the general practitioner, but that we exert ourselves to the utmost to encourage disciples in the various branches of medicine.

3. That the work of the fourth year in medicine and also, so far as practicable, in other clinical departments, be so arranged that students can act as clinical assistants in the wards and out-patient clinics instead of attending lectures and demonstrations.

4. That the required work in the specialties be confined to their bearing on the needs of the general practitioner, but that the teaching be done by the various specialists concerned after consultation with their respective departmental staffs.

5. That greater emphasis be placed on the teaching of hygiene and public health, and that we earnestly recommend the establishment of a department of hygiene and public health.

6. That, in order to improve the services of our students at accredited hospitals, the dean be requested to appoint a committee of five to inquire of and to confer with ex-interns, regarding the nature of their services and suggestions for improvement of the same.

7. That the work in physical diagnosis and pathology now given at Stanford University be transferred to San Francisco.

8. That all required work be reduced by 8 per cent. This report has been adopted by the medical faculty.

The recommendation of the committee will mean that the medical students will come to San Francisco one quarter earlier than they have heretofore.

The medical school has received from an anonymous donor $300 as part payment for a fellowship in physical therapy.

The following course of popular medical lectures on "The Internal Secretions" is now being given in Lane Hall on alternate Friday evenings:

January 4.—"Active Principles Derived from the Glands of Internal Secretions," by P. J. Hanzlik.

January 18.—"Thyroid Disease," by Clement H. Arnold.

February 1.—"The Secretion of the Anterior Hypophysis, by Herbert M. Evans.

February 15.—"Hypophyseal Disturbances in Man," by E. B. Towne.

February 29.—"Insulin and Diabetes," by D. E. Shepardson.

March 14.—"The Effect of the Sexual Cycle on Voluntary Activity in the White Rat," by Professor J. R. Slonaker.

Professor Ludwig Aschoff of Freiburg has been selected as Lane medical lecturer for the year 1924, and Professor Vittorio Putti of the University of Bologna, the famous orthopedist, has been named Lane medical lecturer for 1925. Professor Aschoff will probably deliver his lectures during the last week in May.

The Lane Hospital is carrying on special work on insulin, under a grant from John D. Rockefeller Jr., of $10,000.

COUNTY NEWS

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary)—The annual meeting of the Alameda County Medical Association was called to order by the president at 8:20 p. m., December 17, 1923, at the Ethel Moore Memorial building.

The following program was presented:

Posterior Duodenal Diverticulum—Medical Aspect. W. H. Strietmann.

Posterior Duodenal Diverticulum—Surgical Aspect. Charles A. Dukes.

Esophageal Carcinoma of Long Standing—Lantern Slides. Fletcher B. Taylor.

These papers were generally and ably discussed. At the close of the scientific program, Dudley Smith offered a glowing tribute to the memory of the late W. L. Friedman. The retiring officers and chairmen of the various committees gave their annual reports. Refreshments were served, and a social hour enjoyed.

Newly elected officers, councillors, delegates and alternates: President, Charles L. McVey; vice-president, H. B. Mehrmann; secretary-treasurer, Pauline S. Nusbaumer; councillors, Stanley Berry, Daniel Crosby, E. A. DePuy, J. K. Hamilton, G. G. Reinle, C. A. Wills; delegates, W. L. Channell, W. S. Kuder, Gertrude Moore, George Rothganger; alternates, Eugene Barbera, F. W. Browning, Robert A. Glenn, C. Hall, W. E. Mitchell, A. C. Smith.

New Alameda Hospital—Incorporation papers have been issued to the Alameda Hospital Association. The trustees have plans well under way for the construction of a new four-story 100-bed hospital. The incorporators are Miss Kate Creedon, one of the proprietors of the sanatorium now in existence in Alameda; W. B. Stephens, M. D.; A. W. Porter, F. P. McLennan, and J. E. Hall.

KERN COUNTY

Kern County Medical Society (reported by P. J. Cuneo, secretary)—Following the custom of the past, the December meeting of the Kern County Medical Society was marked by the annual election of officers for the coming year.

The meeting was held at the Stockdale Clubhouse December 16, 1923, with Doctor Moore presiding. P. J. Cuneo was elected president; H. W. Hawkins, vice-president; H. W. Moore, secretary-treasurer; E. A. Shaper, censor; F. O. Hamlin, delegate; F. J. Gundry, alternate.

The business meeting was followed by a dinner-dance, arranged by Morris, Hamlin, and Moore. Members and guests were surprised by a splendid program consisting of entertainers from the Coast to Coast Theatrical Circuit, and a full-fledged orchestra to furnish the music for the dancing. Those attending were Dr. and Mrs. A. Moodie of Taft, Dr. and Mrs. Veon of Bakersfield, Dr. and Mrs. P. J. Cuneo, Dr. and Mrs. F. J. Gundry, Dr. and Mrs. Homer Rogers, Dr. and Mrs. Balnenburg, Dr. and Mrs. S. F. Smith, Dr. and Mrs. Joe Smith, Dr. and Mrs. Morris, Dr. and Mrs. E. A. Shaper, Dr. and Mrs. W. H. Moore, Dr. and Mrs. T. M. McNamara, Dr. and Mrs. O. P. Goodall, Dr. and Mrs. Fogg of Wasco, Dr. Yvall of McFarland, and Dr. Leland Ellis.

The Society will be the guest of the Taft members at Taft January 17, 1924.

The sympathy of the Society is extended to Dr. T. M. McNamara, who suffered the loss of his father.

Dr. Kathlyn Ellis has returned home, but is still in poor health.

The County General Hospital building is rapidly nearing completion. It is felt that it will mark a new era of co-operation and expansion of our Society in every useful way.

Manuel Salis has been appointed milk inspector for the newly created Bakersfield district by the Health Officer. Mr. Salis will devote his entire time to milk inspection.

The Mercy Hospital of Bakersfield, conducted by the Sisters of Mercy, contemplate adding a wing to their structure this coming spring, giving to Bakersfield the added facilities of twenty new rooms.

LAKE COUNTY

Lake County Hospital Annex—The new annex to the County Hospital has been completed. The annex comprises five new rooms, pantry, bath, and basement, the latter making a convenient and suitable quarters for the garage, woodroom, storeroom, and laundry. Two detention rooms are also located in the basement. There are now seven rooms for patients, which will accommodate approximately from 21 to 25 people.

LOS ANGELES COUNTY

Twentieth Annual Report of the Barlow Sanatorium, Los Angeles—The Barlow Sanatorium was founded in 1902 for the purpose of giving refined people of small means, who are suffering with pulmonary tuberculosis in the curable stages, an opportunity of receiving sanatorium treatment and care; and we feel that the results of twenty years' work have justified the undertaking. While there may be some who have not appeared to benefit by their stay in the sanatorium, the great majority of patients treated have made improvement, and a large percentage have been returned to their homes and work apparently cured.

In spite of the ever-increasing cost of maintenance, we have been able to keep the charge per patient down to $10 per week, which includes everything the patient needs; and because we have been able to handle more cases this past year, the cost per capita has not risen as high as might be expected. Our average number of patients has been 76.8 as compared with 70 the previous year, and the average cost per capita per week was $20.70. The endowment fund is $310,000.

In order to be admitted to the Barlow Sanatorium, patients must (1) have lived in Los Angeles County at least one year immediately before admission; (2) they shall secure $10 per week, which amount covers one-half the actual cost of care; (3) they must be in need of financial assistance; (4) they must be examined by one of the sanatorium staff; (5) they must be free from complication, such as tuberculosis of larynx, intestines, bones, etc.; (6) they must be in such condition that there is reasonable prospect of permanent benefit. In complying with the above conditions, it would naturally follow that many applications are received which cannot be accepted. The following table offers a better idea as to the number of applications received, accepted and rejected and the causes for rejection:

Total number of applicants	391
Applicants accepted	143
Applications deferred at the end of the year	136
Applications rejected	87
Withdrawn	25
No tuberculosis	11

Cottage Hospital, Burbank, Changes Hands—Miss Norma Short is now the sole owner of the Cottage Hospital. Recently the interest of Miss Beulah Newton was purchased by a third party, who in turn sold it to Miss Short, who will manage the hospital with a staff of six.

Murphy Memorial Hospital, Whittier—A recent number of the Whittier News contains an interesting illustrated article about the Murphy Memorial Hospital of which the community is justly very

proud. A new fifty-bed wing is nearing completion. It is one of the few smaller hospitals that is a completely equipped and organized general hospital.

New Glendale Sanitarium Nears Completion—This new health agency operated by the Seventh Day Adventist denomination has been planned to be the "Battle Creek of the West." The acreage at Wilson avenue and Sycamore Canyon road is ample and attractive. The site and improvements are valued at nearly $1,000,000. H. G. Westphal, M. D., is director, Mr. C. E. Kimlin, manager, and W. J. Johnson, resident physician of the medical plant.

MONTEREY COUNTY

Monterey County Medical Society (reported by T. C. Edwards, secretary)—Officers elected to serve the Monterey County Medical Society for 1924 are: President, William H. Bingaman, Gonzales; vice-president, William Gratiot, Pacific Grove; secretary, J. A. Beck, Salinas; treasurer, T. C. Edwards, Salinas; delegate, W. R. Reeves, Salinas; alternate, J. A. Beck, Salinas.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement (reported by G. J. Hall, secretary)—The following officers have been elected for the year 1924: G. N. Drysdale, president; F. N. Scatena, vice-president; G. J. Hall, secretary-treasurer. Directors, G. N. Drysdale, F. N. Scatena, W. W. Cress, J. B. Harris, C. E. Schoff, G. P. Dillon.

Meetings of the Society will be held the third Tuesday of each month at the Sacramento Hotel, 8:30 p. m., with lunch after the meeting.

On January 15, W. R. Briggs read a paper on "Pathology of the Eye in Relation to General Pathology."

The Sutter Hospital Opened—The Sutter Hospital at Twenty-eighth and L streets, a modern institution for the treatment of the sick, was formally opened on December 2. Many floral pieces and notes of congratulation and wishes of success were sent to the hospital, which was open from 2 o'clock until 10 o'clock for public inspection. The stockholders were taken through the hospital in groups by physicians, who explained the systems which will be employed and the details of the equipment.

T. Binkley is house physician. Members of the board of directors of the hospital association are Drs. G. A. Spencer, president; W. A. Beattie, first vice-president; George A. Briggs, second vice-president; E. T. Rulison, treasurer; J. W. James, secretary. Dr. James, chief of hospital staff; Dr. F. N. Scatena, assistant. Miss E. Wolfinder, head nurse.

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—The Society met January 8 at the San Bernardino County Hospital, with 30 members present, 50 absent, and 10 guests. The following program was given:

"Infections of the Hand and Forearm." By P. M. Savage. Discussion opened by E. J. Eytinge.

"Demonstrations and Discussions of Interesting Pathological Specimens." By R. B. Hill of Los Angeles. Discussion opened by N. G. Evans.

"Discussion of One Thousand Hysterectomies." Lantern slide demonstration of operative technic. By E. C. Moore of Los Angeles. Discussion opened by C. G. Hilliard.

There was a demonstration of the Spencer Delinearscope.

A. N. Kerr and V. L. Minehart of Arrowhead and Lenore Campbell of Loma Linda have been elected to membership in the Society.

The secretary again requests that the names of any eligible physicians who are not members of the county society at present be sent to him. It is just as important to get a former member back into the Sociey as it is to enroll a new one. The State Society is making a special point of this matter.

SAN DIEGO COUNTY

St. Joseph's Hospital—This splendid new hospital is now nearing completion. The seven-story modern building is located on a five-acre tract of land on quiet streets. The main building is 260 feet long by 44 feet wide. Provision is made for two additional wings when they are required.

The Sisters have taken an advanced but praiseworthy position in devoting nearly all of the space to single and double rooms.

The Sisters of Mercy opened their first hospital in San Diego in 1890, and progress in building and improvements in service have been constant since that time. The new hospital is a credit to the Sisters, to San Diego and to the physicians, who have heretofore been somewhat handicapped for lack of hospital beds for their patients.

The hospital will be equipped for radio connection in every private room. So a sick person at St. Joseph's can lie upon his bed and keep in close touch with a vast portion of the world in a practically uninterrupted series of programs.

La Jolla Sanitarium—The new addition is now under construction and when completed will enhance the beauty and usefulness of the hospital very much. The building will be of the monolithic reinforced construction and will be one of the most up-to-date hospitals on the coast. This new addition will almost double the capacity of the hospital.

SAN FRANCISCO COUNTY

San Francisco County Medical Society (reported by J. H. Woolsey, secretary)—During the month of December, 1923, the following meetings were held:

Tuesday, December 4—Committee on Medicine—Symposium on Treatment. (To be concluded next month.) What constitutes therapy?—Harold P. Hill. The psychology of sickness; the attitude of physician to patient—J. Wilson Shiels.

Tuesday, December 11—Annual Meeting—Reports of officers, committees, etc. Announcement of election (see below). Medical activities of the Veterans' Bureau—Herbert C. Watts, Chief Medical Division, Twelfth District. The principles and practice of case-rating—James G. Donnelly, Chief Rating Section, Medical Division, Twelfth District. The rehabilitation of a veteran suffering with a neuropsychiatric disability—Irving E. Charlesworth, Chief Neuropsychiatric Subsection, Medical Division, Twelfth District.

The following officers were declared elected for 1924: President, Emmet Rixford; first vice-president, Joseph Catton; second vice-president, Mary J. Mentzer; secretary-treasurer, J. H. Woolsey; librarian, Leo Eloesser; board of directors, Thomas Addis, Hans Barkan, L. H. Briggs, Edmund Butler, W. E. Chamberlain, E. C. Fleischner, M. R. Gibbons; delegates 1924-25, W. C. Alvarez; Edmund Butler, Joseph Catton, W. E. Chamberlain, E. C. Fleischner, M. R. Gibbons, J. H. Graves, Sol. Hyman, W. J. Kerr, A. R. Kilgore, J. C. Neel, H. A. L. Ryfkogel, William E. Stevens, V. G. Vecki.

Meeting of the Eye, Ear, Nose, and Throat Section of the San Francisco County Medical Society, October 23, 1923, E. F. Glaser, presiding (reported by F. C. Cordes, secretary)—Melanosis of the Conjunctiva—Louis C. Deane, in presenting the case, said that the most noticeable feature of an eye is its pigment. Its remarkable distribution, its normal variations in quantity and location, and again, its spectacular feature, lying there without apparent function, except as to curb or retain the light-rays, it can by some unknown process, fulminate into a growth so malignant as to claim at least an eye, if not a life. This is so of any part of the eye where pigment normally exists, whether choroid, ciliary processes, or iris. Pigment can creep into parts where it does not belong where it becomes a greater menace in that, with the tissue it has invaded, it may assume a tumor form and in most instances a malignant form.

Pigment is not present normally in the conjunc-

tiva or sclera. The limbus seems to be the connecting link between the pigment of the uveal tract and epibulbar region, for it is here that in the colored race we see a ring of pigment encircling the cornea, and it is in this region that the melanosarcoma of the conjunctiva is seen.

Mrs. H., middle-aged woman, always in good health, twenty-five years ago noticed in the right eye only some diffused brownish spots in the white of her eye, gradually increasing until they became coalescent. She states that the amount varied, increasing in quantity following excessive use of eyes or general fatigue.

I saw her first in February of this year. She consulted me not for the pigmentation, but for a small growth on the eye that had been increasing in size for nine months. The first thing noticed was a diffused brownish black pigmentation of her entire ocular and palpebral conjunctiva extending into the cornea for a couple of millimeters on its surface epithelium. A growth about 6x4x3 mm. was situated at the outer limbus on the horizontal meridian, deeply pigmented and movable, except for its proximity to the cornea.

The fundus showed no variation from normal, the iris was similar in color and appearance to the left eye and the cornea was normal except for the slight encroachment of pigment at its edge. Vision 20/20 and always the better eye of the two, so she states. The tumor looked malignant, and I extirpated it including surrounding conjunctiva and cauterized the underlying sclera, bringing the conjunctiva together with stitches. The wound healed as after a pterygium operation, and there has been no recurrence.

While cleansing the eye with cotton previous to the operation, I was astonished to find that I could wipe off the pigment from the conjunctiva, staining the cotton swab quite black. I repeated this on following days, and could always wipe off pigment.

Dr. Ophuls of Stanford University states that it is a non-malignant growth, with a diagnosis of melanosis of conjunctiva.

Since the operation, nine months later, the amount of pigment in the conjunctiva has markedly diminished, only appearing now in large circumscribed patches. She states that this diminution has occurred before.

The following thoughts seem to be of interest:

1. The varying intensity and quantity proving an active process of pigment proliferation.
2. Is the diminution of pigment due to absorption, or is it just wiped or washed off by the action of the lid, as I was able to remove some with a dry cotton swab.
3. It would seem that the activity of pigment production and recession has no bearing upon malignancy, as this tumor proved contrary to the rule.
4. Excluding congenital conjunctival nevi or moles or brown pigmented spots seen in dark people, any melanosis of the conjunctiva, no matter how mild, is very liable to develop into malignancy.

Fuchs states "that in most cases melanosarcoma develops." Weeks prefers to remove such spots surgically before waiting for further developments. Verhoeff and Loring say 80 per cent in favor of malignancy. Dean, with a cotton swab, then proceeded to demonstrate the wiping of the pigment from the conjunctiva.

Discussion—Pischel remarked that it was the first case of its type he had seen, especially interesting was the fact that the pigment could be brushed off so easily.

Obarrio interested in two points. The wiping off of the pigment is due to proliferation of pigment cells. Also there was 60 per cent more pigment present before operation, he having seen the case. He does not understand why removal of the tumor has stopped pigment proliferation unless due to the changing of vascular supply. The pigmentation has been receding ever since the operation. In 1903 he reported a case of marked pterygium and pointed out that if the blood vessels of the conjunctiva in healing turned upon themselves and did not ramify on the cornea there was no recurrence. In this case that has taken place and so thinks there will be no recurrence.

Franklin pointed out that melanosis is rare. We have naevi or circumscribed tumors of the iris that are considered congenital. Feels that subconjunctival injection might hasten absorption of this pigment.

Frederick feels that pigment must have broken through to allow wiping same off.

Deane in closing quoted Ophuls' report, "the upper layers of the epithelium are missing," and perhaps this accounts for the fact that the pigment can be wiped off.

Cataract Extraction Technic With Reference to Antisepsis and Iris Anesthesia—P. de Obarrio reviews cataract classification, observing that we should strive to determine two important factors—thickness of the capsule and size of the nucleus.

Slit lamp gives most valuable information, but its expense is prohibitive. Author uses the telescope of an ordinary ophthalmometer, and by projecting a strong light directly on anterior segment patient's eye and omitting entirely the mire-lights, a lot of valuable information can be obtained as to condition of iris, lens, capsule, etc. The double image produced by prisms is eliminated by removing same or by moving observer's eye to one side.

Reviews technic of preparation of instruments and patient. Makes a special point of the use of rubber gloves. Hands must be dry, glove-fingers short and well-fitting over tips. Avoid powder outside of gloves. When gloves on, wet with bichloride and just dry excess of liquid; this procedure gives necessary cohesion to instruments. Instrument handles should be preferably octagonal, as they give feeling of being "geared" to fingers. No appreciable loss of feeling with gloves.

Lays particular stress on use of mouth and nose cover for operator and assistants. Shows culture plates and tubes of result of experiments on exposure of operation field for five minutes under mouth and nose protection as well as without it, showing great increase in number of colonies as compared with check plate-cultures. Demonstrates that conjunctiva is never sterile, but principal organisms present are Xerosis bacilli from 80 to 94 per cent and staphylococcus albus from 70 to 85 per cent both of which are not necessarily pathogenic. Real danger of traumatized cornea is in the presence of pneumococcus, which cannot migrate through nasal duct of patient because of ciliated epithelium of same; hence, if present, must have been transplanted by hands, instruments, or by the action of speaking into the field of operation without nose and mouth protection. No excuse for avoiding all precautions, otherwise operator may be legally liable.

Absolute iris anesthesia produced by direct instillation of 4 per cent novocaine with adrenalin into anterior chamber immediately after corneal section.

Explains the mechanism of his method of lid traction to produce minus pressure on globe during operation. Claims lid traction to be the greatest factor of safety in ocular surgery and by far the most important advance in the technic of cataract extraction. Technic is based on clinical observation that eyes in which cornea collapses after section never produce vitreous loss. Author endeavors to produce this condition of minus tension artificially in all eyes to prevent vitreous loss as well as to assist in the replacement of the iris or the management of vitreous prolapse.

Very special stress is laid on the clinical fact that traction on the zonula can be exercised to a very great extent without producing reaction. On the other hand, compression in the neighborhood of the ciliary region to expel a lens produces considerable reaction. Intracapsular extractions by expressing

methods invariably produced irritable slow-healing eyes. Intracapsular extraction by traction produces considerably less reaction and frequently no reaction. Traction on zonula can be produced to an extent that may appear alarming without reaction and without vitreous loss if coupled with lid traction in accordance with author's technic.

Discussion—Franklin remarked that the paper had some very practical suggestions. The reason for so few infections in cases of poor technique is probably due to the washing away of the bacteria by the aqueous. We cannot use strong enough solutions to sterilize the conjunctival sac without injury. In the lavage it is really a mechanical cleansing. He has worn gloves in every case for the past ten years, and finds it does not interfere with the sense of touch, provided gloves are worn in every case. Feels that operation without a speculum is safer and easier on the patient.

Maghy pointed out the necessity of determining the type of cataract.

Frederick feels that a new knife is necessary in every case. He has seen Obarrio operate, using the iris anesthesia and saw that it worked well. However, the fewer instruments put into the anterior chamber the better the result and the less danger. Also feels that the advantage gained does not warrant the additional risk. He could not become accustomed to gloves and, inasmuch as the part of the instrument entering the eye is not touched, sees no necessity for same.

Pischel remarked that in Axenfeld's clinic, if the examination of the conjunctival smear showed staphylococcus aureous, the operation was postponed. The use of codein before the operation is a great help, as is also the paralysis of the orbicularis as described by Derby at the last A. M. A. Subconjunctival injection helps sufficiently so that intraocular instillation of cocain is not necessary.

Obarrio in closing wants to emphasize the holding up of the lids to produce a minus tension and also the wearing of gloves and a mask to guard against any outside infection.

Alveolar Fistulae With Reference to the Antrum—Merton J. Price presented a paper on this subject that will appear in full in the Journal.

Discussion—Sewell finds difficulty in closing the flaps; the making of flaps from the roof of the mouth is rather disappointing as they don't slip over, but are rather inelastic. The pressure of the blood supply is extremely important.

Deane remarked that he did not agree with Price that 80 per cent of antrum trouble came from teeth. He felt that many cases resulted from acute rhinitis, and that probably 80 per cent came from nose and throat and not teeth.

Graham was surprised to learn of the great number of fistulae, and thinks that this is due to the fact that radical dental surgery has been done so generally the last five or six years. He is rather certain that there are more now than formerly. The radical dental surgery permits more necrosis of the soft parts, and dentists should be warned to use the curette most carefully. He also feels that the nose and throat are responsible for more antrum infection than the teeth.

Price in closing stated that many failures of flap operations were probably due to the flap being too small, and there being too much tension. The failure of the dentist to recognize antrum infection and of the ear, nose, and throat man to recognize tooth infection is an important factor. Dentists still remove teeth for drainage of the antrum. The increase on the number of fistulae is probably due to the fact that many dentists with improper training attempt dental surgery.

Eye, Ear, Nose, and Throat Section of the San Francisco County Medical Society Met Tuesday, November 27, 1923, Edward F. Glaser presiding. (Reported by Frederick C. Cordes.)

Robert D. Cohn presented a paper on Halle's clinic with especial reference to his endonasal surgery. The full paper will appear in the January issue of this Journal.

Warren D. Horner presented a paper on the present aspect of post-graduate and clinic work in Vienna. The author reviews conditions in Vienna as he found them in an eight months' stay at the eye, ear, nose, and throat clinics from September, 1922, to June, 1923.

The importance of the American Medical Association of Vienna to the visiting physician is emphasized. This association, which is more than 12 years old, maintains clubrooms near the hospital. These serve both as a bureau for post-graduate courses and as a social center for all visiting English-speaking physicians. The membership runs from 100 in the winter months to about 250 in the summer.

The association is now up to its pre-war strength and effectiveness. The president, Bernard Kaufman of San Francisco, deserves to be congratulated for his excellent work during the reconstruction period. Courses of study are catalogued and announced by or through the association, which has arranged with the faculty for a standardized fee system. It also acts as financial agent for both student and instructor. The listing of available courses and the standardizing of their fees is of the utmost importance to the visiting physician. Practically all courses may be had in English, but a knowledge of German is naturally of great advantage. A wide variety of work may be had at the various hospitals, clinics, and institutes.

Prices for instruction run from $3 to $5 per hour for lectures or demonstrations, and from $15 to $50 per month for clinic work, depending upon the amount of individual instruction given. The fee is divided equally among the men taking the work, and all fees are quoted and paid in dollars.

Operative work on the cadaver is plentiful and good. Operations on the living are only obtained after months of work at the same clinic or perhaps in a few cases by private arrangement with some surgeon.

Owing to the low value of the kroner and the small fee obtainable for an office visit, teaching Americans for American dollars has become unusually popular among the faculty. Many of the Austrian faculty underrate American knowledge and methods in medicine. They are perhaps influenced in this view, because so many Americans go to Vienna for post-graduate instruction. However, those of the faculty who have been to America are enthusiastic over what they saw and give us the full credit that we deserve in the medical sciences. The Austrian cannot understand the common practice of so many of our best men devoting their entire time to private practice. The Austrian physician prefers the honor and title incident to a university clinic appointment more than a larger private practice. This makes for better post-graduate facilities there, and is one of the fundamental reasons why post-graduate work is better in Austria than in America.

Living conditions are good in Austria. Living costs are lower than in America; good pension board, room and service may be had, for example, at about $40 per month. Other items are proportionately low.

Austria's general political and financial conditions are improving steadily, due to her own efforts and the stabilizing effect of an allied loan.

Vienna offers many attractions to the visitor, outside of medicine, in the beauty of its public buildings, its parks, its operas, and its picturesque surroundings.

Polyclinic Opens New Clinic—A free diphtheria prevention clinic for children was opened recently at 1545 Jackson street as a branch of the San Francisco Polyclinic. Children between the ages of 6 months and 15 years will be given the Schick test

and the toxin-antitoxin permanent immunization injections.

Southern Pacific General Hospital (reported by W. T. Cummins, secretary)—The monthly staff meeting of the Southern Pacific General Hospital, San Francisco, was held on Monday, January 7. The following officers were elected for 1924: Chairman, F. K. Ainsworth; vice-chairman, W. B. Coffey; secretary, W. T. Cummins.

Brief talks were made by W. I. Terry, W. B. Coffey, P. K. Brown, W. F. Schaller, and R. J. Dowdall relative to the large number of interesting clinical cases which the hospital offers for study and treatment and to the importance of others than the staff participating by invitation in the scientific program.

St. Luke's Hospital Makes Staff Changes—A new professional staff for St. Luke's Hospital was appointed at a meeting of the board of directors held recently. This was the first meeting of the directors since the termination of the affiliation agreement with the University of California Medical School. The new staff is as follows:

Alanson Weeks, chief of division of surgery; Harld P. Hill, chief of division of medicine; A. J. Houston, chief of department of otorhinolaryngology; G. L. McChesney, chief of department of orthopedic surgery; W. P. Willard, chief of department of urology; Otto Barken, chief of department of ophthalmology; E. I. Leavett, chief of department of anesthesiology; Howard Morrow, chief of department of dermatology; E. V. Knapp, chief of department of pathology; J. M. Reyfisch, chief of department of X-ray; T. G. Inman, chief of department of neuropsychiatry; W. G. Moore, chief of division of gynecology and obsterics; R. K. Smith, chief of obstetrics; George Lyman, chief of division of pediatrics; William Ophuls and G. Y. Rusk, consultants in pathology.

In addition to these the following doctors were named as associate members of the staff: Philip Arnot, Rea Ashley, Hans Barkan, LeRoy Brooks, Z. E. Bolin, Paul Castelhun, E. Christianson, R. L. Dresel, A. C. Gibson, W. H. Hill, William Kenney, M. G. LaPlace, R. V. Lee, H. E. Miller, E. W. Parsons, G. Partridge, J. C. Parrott, J. M. Read, B. Stone, L. Taussig, J. C. W. Taylor, and G. S. Wrinkle.

Last June Howard H. Johnson assumed the management of the hospital. • The officers and the board of directors, under whose management the hospital has been conducted since May, 1920, are as follows: B. H. Dibblee, president; William H. Crocker, vice-president; Clifton H. Kroll, vice-president; Frederic M. Lee, secretary-treasurer; Frank P. Deering, Miss V. Newell Drown, A. B. McAllister, Louis F. Monteagle, Rt. Rev. William Ford Nichols, George A. Pope, and Dr. W. A. Phillips.

St. Joseph's Hospital Staff of San Francisco reviewed syphilitic therapy on January 9. Harry C. Coe of Stanford Medical School outlined the modern treatment of the disease, touching upon the old and new drugs and the criteria of cure. Howard W. Fleming of the University of California Medical Department illustrated operations upon the brain and spinal cord for luetic lesions. Ethan Smith, Harold Wright, C. Nixon, P. Collischonn, and W. T. Cummins discussed several features of the topic.

The program for the meeting of February 13 follows:

Particulars of syphilitic therapy in: (a) Obstetrics and Gynecology, A. B. Spalding of Stanford Medical School; (b) Pediatrics, M. L. Cohn, University of California Medical Dept., and (c) Neurology, J. M. Wolfsohn, Stanford Medical School.

SAN JOAQUIN COUNTY

Conference of State Hospital Officials—Superintendents of the State hospitals and institutions of California recently held a three days' conference at the Stockton State Hospital as the guests of Dr. Fred P. Clark, superintendent. The purpose of holding these conferences is to discuss plans for increasing the efficiency of the State institutions and make plans for the 1924 program. Members of the board of control and Governor Richardson attended the meeting. Those attending the conference were Mr. Walter Wagner, director of State institutions; Leonard Stocking, superintendent of the Agnew State Hospital; J. M. Scanland, superintendent of the Napa State Hospital; D. R. Smith, superintendent of the Mendocino State Hospital; O. S. Applegate, superintendent of the Norwalk State Hospital, F. O. Butler, superintendent of the Sonoma State Home; John A. Reily, superintendent of the Southern California State Hospital at Patton; Mr. Edward Twogood, secretary of the State department of institutions.

An elaborate entertainment and dance was given in the women's department of the hospital. Patients and attendants took part in the program, and moving pictures were shown.

San Joaquin County Medical Society Approves Health Unit—The Stockton Record says: "Endorsement of the San Joaquin health district's work was given by the San Joaquin County Medical Society directors last night, but approval of the district's plans for raising money was deferred until a vote can be taken at the February meeting of the Society. Fred Conzelman, who presided, stated that, despite their personal opinion that the cause is worthy, the directors felt that they did not have the power to act.

H. S. Chapman was appointed director of the clinic for another year, and was commended for his work during the time he has been in charge.

SANTA BARBARA

Santa Barbara County Medical Society (reported by A. C. Soper Jr., secretary)—The Society, to the number of 33 members, five internes as guests, and B. E. Merrill of Santa Paula, assembled at the Samarkand Hotel January 14. The annual banquet began at 7:30, and was presided over by President Means, the table being arranged in the form of a "T," with the officers and speakers at the head table. The banquet finished at 9.

H. J. Ullman, at the suggestion of the president, gave a humorous demonstration of the influence of thought-waves on an electrically controlled instrument, which flashed, wavered, or failed to shine, according to the intensity of thought in his "victims."

Mr. Edward F. Brown, prominently identified with the city improvement movement, by invitation gave an address on the necessity of development of the individual as a preface to that of the community, and touched upon many ideas for the betterment of the criminally inclined class.

William J. Melliner read a humorous description of California, with pithy comments on the rival cities, north and south.

Moses Thorner of Santa Maria spoke briefly on his appreciation of California, and claimed special supremacy for his own town.

The annual report of the secretary-treasurer was read and accepted.

Notice of application for membership by transfer of Irving Wills and W. H. Eaton met with approval, the matter to be referred to the censors in the usual manner.

Election of officers for 1924 resulted in Samuel Robinson being elected president; Franklin R. Nuzum, vice-president, and Moses Thorner and Edwin F. Smith, the first and second vice-presidents-at-large. The secretary-treasurer, by unanimous vote, was instructed to cast a ballot for himself for re-election.

Santa Barbara Cottage Hospital—The third Annual Clinic Day and banquet was held Monday, January 14, 1924, Franklin R. Nuzum, general chairman; Rexwald Brown, chairman surgical committee; Hugh Friedell, chairman medical committee; William J. Mellinger, chairman ear, nose, and throat committee. The following physicians took part in the clinics: Henry J. Profant, Phillip C. Means,

George S. Wells, William J. Mellinger, H. F. Pierce, Samuel Robinson, Rexwald Brown, H. L. Schurmeier, L. W. Hotchkiss, George W. Jean, Franklin R. Nuzum, Allen Williams, George R. Luton, H. J. Ullmann, W. D. Sansum, Ben Bakewell, Nathaniel Brush, H. O. Koefod, W. H. Campbell, H. E. Henderson, G. S. Loveren, and Hugh F. Freidell.

SANTA CLARA COUNTY

Santa Clara County Hospital—A new two-story wing to accommodate 50 patients and a central power plant have just been completed. The first floor of the new wing will be used for admission and emergency services. The second floor and solarium will be used for surgical patients. The large, airy basement will be utilized for physiotherapy. The additions cost about $220,000, including equipment.

The hospital occupies a forty-acre tract of land, and now has accommodations for 300 patients. Doxey R. Wilson, M. D., is director of the hospital. Frank Johnston is resident physician, with three young physician assistants. The visiting staff is made up of members of the Santa Clara County Medical Society.

Columbia Hospital Becomes Garden City Hospital—The Columbia Hospital was taken over by L. J. Belknap January 1, and will be conducted in future under its original name, Garden City Sanitarium. It will continue under the management of R. D. Brisbane, co-operating with Belknap until next summer, when the buildings will be removed to make way for the new junior high school, for which the land was recently purchased by the Board of Education. The concrete building and two cottages will be removed onto land owned by Belknap facing on Santa Clara street. The concrete building will be enlarged and equipped with modern appliances for a first-class hospital and will be conducted with one of the best equipped physiotherapy plants on the coast. This latter is already equipped and running. The wooden building will be wrecked.

SOLANO COUNTY

Solano County Medical Society (reported by A. V. Doran, secretary)—Edgar Peterson has been appointed assistant surgeon for the Southern Pacific Company for the Vallejo district.

Fred Heegler and George Thornton Sr. have been appointed members of the Board of Health.

B. J. Klotz died December 17, 1923, his death being caused by hemorrhage from the stomach—perforation of ulcer into blood vessel.

Mrs. B. J. Klotz has been appointed coroner and public administrator for the unexpired term of B. J. Klotz, deceased. J. Brownlie has been appointed deputy coroner.

SONOMA COUNTY

Sonoma County Medical Society (reported by N. Juell, secretary)—The Society met on January 10, with 14 present, 24 absent, and two visitors. The program was as follows:

"Fifty Years in Medicine," by N. Juell.

Discussion of "Professional Ethics," led by E. W. Bixby.

Sonoma County Hospital Improvements—Repairs and improvements have been carried out for the Sonoma County Hospital to the value of $10,000. About half of this money was spent for new furniture and equipment, and the balance was used in renovating the building.

Petaluma General Hospital—This hospital, located at Sixth and I streets, has recently been enlarged by the addition of a wing connecting the main hospital building and the maternity ward so that the entire group of buildings is now on one floor with the same elevation. The hospital has been improved and beautified, while there are additional conveniences for physicians, patients, and nurses. The new addition, designed by B. Jones, includes the new administration department, reception room and office, several large private rooms for patients, as well as sun rooms, corridors and convalescent quarters.

STANISLAUS COUNTY

Stanislaus County Medical Society (reported by R. E. Maxwell, secretary)—Society met at Hotel Modesto, December 14, the meeting beginning with a banquet. President E. R. McPheeters presided.

Members present were: B. F. Surrhyne, Walter Smith, C. E. Finney, Carl Benson, J. W. Morgan, E. F. Reamer, E. G. Allen, J. A. Young, J. L. Collins, F. W. McKibbon, C. E. Pearson, E. R. McPheeters, R. E. Maxwell, H. Smith, C. I. Bemis, J. L. Hennemuth, L. D. Mottram, F. R. De Lappe, and E. F. Hagadorn.

E. R. McPheeters explained the formation of the new association formed by the nurses in this county. Also that they had formed and stipulated a new official nurses' registry.

Owing to the irregular manner in which this had been accomplished, it was moved by B. F. Surrhyne and seconded by J. W. Morgan that the registry, formerly maintained by Mrs. Craddock on Hackberry street in Modesto, be recognized by our Society until the State Association of Nurses regularly organizes as such in this county, and their official announcements sets forth a definite registry as being official.

Officers for the year 1924 were then elected as follows: R. E. Maxwell, president; J. L. Hennemuth, vice-president; E. R. McPheeters, secretary-treasurer; C. I. Bemis, censor; E. R. McPheeters, State delegate.

P. N. Jacobson of Oakland read a paper on "Value of Cystoscopy and Pyelography in Abdominal Diagnosis," supplemented by X-rays.

Q. O. Gilbert, formerly instructor of medicine at the University of Michigan, gave a talk on "Perverted Physiology of Right Upper Abdomen," augmented by an excellent series of X-rays with a valuable explanation of same.

A vote of thanks was extended to the speakers for their interesting and instructive papers.

McPheeters Hospital Addition—A new addition to provide additional rooms, physicians' offices, a complete X-ray room, two treatment rooms and a laboratory to McPheeters Hospital, Modesto, is now under construction. Above the new addition will be constructed a pergola for convalescent patients. Improvements are being made on the nurses' home adjoining the main hospital. E. R. McPheeters plans to move his offices to the hospital when construction work is completed.

TULARE COUNTY

Tulare-Kings County Joint Tubercular Hospital to Have Addition—Contract has been awarded for the building of a children's ward as an annex to the present bi-county tubercular hospital at Springville. This annex is to cost $57,697, and will contain 40 beds for children.

YOLO COUNTY

Yolo County Medical Society (reported by Lela J. Beebe, secretary)—Two new members have been admitted to this Society: J. Edward Harbinson of Woodland and Thomas E. Cooper of Davis.

Woodland Clinic—Clinical meetings are held every two weeks at the Woodland Clinic (Fred R. Fairchild, M. D., director), open to all physicians and others especially interested. During December the following papers were read: "The Relation of the General Practitioner to Industrial Accident Cases," by W. J. Blevins. "Fractures of Long Bones," by Fred R. Fairchild, the latter being illustrated by lantern slides and clinical demonstrations. J. E. Harbinson read a paper on "A Presentation of Some Interesting Problems in Gall-Bladder Disease," and John D. Lawson on "The Diagnosis of Gall-Bladder Disease by use of the X-ray."

THE OPTOMETRISTS AND THE ELEVATION OF STANDARDS

In the present position of the optometrists in Minnesota, and their apparent efforts to build up their professional standards, we find and notice many of the steps followed some twenty years ago by the medical profession. Their attitude toward the medical profession deserves some analysis. It is quite apparent that their work is essentially the fitting of glasses. They have no desire to be classed with opticians—men who, in addition to the mechanical work of preparing and framing lenses, often advance into the position of commercial spectacle fitters and merchandisers. The optometrists, in a measure, frown upon the credentials of the opticians who invade their field of glass-fitting, and here we note the beginning of a spirit which aims to advance their own professional standing and secure recognition for their credentials.

The optometrist attests that his reason for the use of the term "doctor" is perfectly correct because he has the degree of "Doctor of Optometry"; that Columbia and some three or four other colleges offer courses of four years' duration, leading up to this degree, the entrance requirements for which are a four-year high school diploma, as it is for other departments. (They admit, however, that like other cults the course of four years may be considerably shortened by the use of summer courses.)

To all direct inquiries as to qualifications, the conscientious optometrist would, of course, disclaim any intention of being an M. D. Nevertheless, above all of this effort on his part to practice only on his merits, appears the very obvious fact that most of the public makes no distinction between him and the medical oculist, and he most certainly basks in the reflected distinction and standing of the medical profession as a whole. It may be quite safely predicted that, if conscientious students and practitioners of optometry hold faithfully to their promises and keep up both their entrance requirements and matriculation standards for licensure, soon the keenest men among them will see the great advantage of applying two or three further years of study, and entering the medical profession proper. This would leave those without such zeal and professional spirit to seek a short-cut to a good position and a livelihood by holding all the requirements down and thereby abandoning the professional for a trade spirit. No doubt this contest is on, at least to some degree, within the ranks of optometrists. It must be apparent to their good men that the broader knowledge of the human body is absolutely essential if they are to be more than skilled salesmen of glasses; certainly, if they are to rise above merchandising and be able to give their clients native instruction, education or direction—ideas good even for their souls as well as their bodies. They cannot attain this position of power without the very fullest knowledge that can be acquired at the particular period of their study.

Reasoning along this basis, the decisive opposition of the optometrists to our Basic Practice Act in the last legislature was ill-advised and illogical. It was the recoil of those fearful of their own position, yet firm in an appreciation of their own fitness. Among other assertions, they contended that they were willing to demand tests in basic sciences as "applied to the anatomy, physiology," etc., of the "head and neck!" They seemed to overlook entirely that there is nothing in the neck which begins to have the association with ocular disease that the kidney has, or (even more illustrative of the point) that nothing in medicine may quite so vitally influence the eye as syphilis—a disease with the most protean and universal bodily manifestations.

Admittedly, good optometrists do not locate in thinly settled country sections; in no way do they claim that they serve the public any cheaper than regular medical oculists. Therefore, they cannot be justified on a basis of country service or lessened community cost—arguments so often heard in favor of graduating doctors of inferior grade and less training. The optometrists do not even openly proclaim that there are insufficient regular medical oculists to properly fit glasses. In fact, like most irregular medical practitioners, they congregate chiefly in thickly settled centers of population where, it is agreed by everybody, are found the greatest number of good oculists.

How, therefore, does the careful optometrist justify his cult, aside from the obvious purpose of making a living? He does so chiefly in the good old-fashioned way of proclaiming the "inferiority of the other fellow"; "His lack of understanding of muscle balance"; "the fact that many medical doctors fit glasses who have had only a few weeks of preparation to do so." They further offer the free presumption that their minds, being unfettered by other claims for attention, encompass more fully the particular principles of physics and optics involved in their work. They assert that their long line of satisfied customers proclaim their general usefulness and community need. In the undoubted fact that many of these men do conscientious and satisfactory work, we can foresee that they are with us to stay. Present European conditions confirm an old financial law, that a strong and a weak currency cannot exist simultaneously: the strong is hoarded, and goes out of circulation. Seven-year and four-year trained "doctors" cannot exist together indefinitely. Either a flux of the latter will destroy the initiative of the former, or the lesser trained must be brought up to an average consistent for both, and parity result.

A recent attendant at the A. M. A. convention in San Francisco returned with much to say about the furore among the California profession over the increasing number and power of the quacks and cults in that State. One of the teachers in Harvard Medical School, when queried about the outcome, is quoted as having said in effect that they have taken an osteopath into the staff of one of their teaching hospitals. There they propose to give him a chance and see what he will be able to accomplish. We must remember, in this connection, that the qualified optometrists are by no means "quacks." It seems entirely logical that we should assist them where possible to a further realization and attainment of professional standards; discarding advertising and holding their members to the strictest ethical code. Then, as they improve, let no other group, without any standards, be allowed to take their place.—Editorial, Minnesota Medicine, October, 1923.

THE 1924 LANE LECTURES

The Stanford University Medical School has announced the forty-second course of popular medical lectures, to be given at Lane Hall, north side of Sacramento street, near Webster, on alternate Friday evenings, at 8 o'clock sharp. All interested are cordially invited to attend. The lectures already given were: January 4—"Active Principles Derived From the Glands of Internal Secretion," P. J. Hanzlik; January 18—"Thyroid Disease," Clement H. Arnold; Friday evening, February 1—"The Secretion of the Anterior Hypophysis," Herbert M. Evans.

Lectures to be given during February and March are: Friday evening, February 15—"Hypophyseal Disturbances in Man," E. B. Towne; Friday evening, February 29, "Insulin and Diabetes," D. E. Shepardson; Friday evening, March 14—"The Effect of the Sexual Cycle on Voluntary Activity in the White Rat," Professor J. R. Slonaker.

Are You Giving Yours?—"Every man owes some of his time to the upbuilding of the profession to which he belongs."—Theodore Roosevelt.

Nevada State Medical Association

HORACE J. BROWN, M. D., Reno.....President
CLAUDE E. PIERSALL, M. D., Reno.....
..Secretary-Treasurer and Associate Editor for Nevada

ABSTRACTS FROM NEVADA MEDICAL BULLETIN

(Editor, C. E. Piersall, Masonic Temple, Reno, Nev.)

At the last business session of the Nevada State Medical Association, after the new officers were elected, the newly elected secretary was asked if the Bulletin would be continued for the year 1924. The answer was given in the affirmative, with a provision that assistance would be rendered the secretary. Our veteran secretary, now our 1924 president, has kindly offered assistance, which will no doubt be used. Any suggestions or criticisms, constructive in type, sent in by the members of the State Medical Association will be appreciated very much, and will help to increase the value and interest of the Bulletin.

Like "Bobby Duff's" letter to Santa Claus, handed the postman on December 26, preparatory for next Christmas, we are now beginning to prepare for our next year's program; in fact, we have already a nucleus formed by two papers on "Amoebic Dysentery"—one on the clinical aspects and one on the laboratory findings. This will probably be enough papers on the above-named subject, so you authors may exclude that subject and begin to write on something else. Several other papers have been promised, and a number of honorary members and visitors have signified their intention of presenting papers or discussions, if we only send them a written invitation and notice of the date of our meetings. We intend to do this, and on time. If any member wishes such invitation to go to his friend, or friends, outside of Nevada, we will gladly welcome their names and addresses to add to our list.

Remember, if you want to receive the California State Journal of Medicine hereafter, you must have your dues paid in advance. Seven dollars a year is the amount for all except those members who also belong to the California Medical Association.

President Brown has announced the membership of committees for 1924 and, with officers and trustees, they are as follows: President, Horace J. Brown; first vice-president, William M. Edwards; second vice-president, A. C. Olmsted; secretary-treasurer, C. E. Piersall; trustees, A. C. Olmsted, W. A. Shaw, A. P. Lewis; delegate to A. M. A., Horace J. Brown; alternate, J. LaRue Robinson.

Committees—Membership, C. W. West, Hal. L. Hewetson, B. Brown; Judicial, M. A. Robison, Donald Maclean, R. A. Bowdle; Scientific Work and Program, J. L. Robinson, A. P. Lewis, E. E. Hamer; Necrology, V. A. Muller, S. R. Clark, G. L. Dembsey; Council, C. E. Swezy, A. J. Hood, R. R. Craig, O. Hovenden, J. West Smith, D. A. Smith, S. K. Morrison, C. C. Bullette, C. H. Lehners, C. C. Blake; Entertainment, S. K. Morrison, W. L. Samuels, J. L. Robison; Public Health and Education, Henry Albert, W. A. Shaw, M. R. Walker; Military Affairs, the President, Vice-Presidents and Secretary.

The military affairs work will be quite important and great in amount so each ex-service member in good standing will also be placed on this committee.

Keep this list on file for reference.

Nevada News Items

J. R. Eby, Elko, recently sustained an injury to his right eye in an automobile accident.

The following officers have been elected by the Elko County Society for 1924: President, A. C. Olmstead, Wells; vice-president, J. R. Eby, Elko; secretary-treasurer, John E. Warden, Elko; councillor, H. A. Paradis, Montello.

A. F. Adams, Reno, has been appointed County Physician in place of A. R. Da Costa, resigned. This consolidates the offices of County Physician and City Physician of Reno.

The State Department of Child Welfare, which functions under the Sheppard-Towner Act, is being reorganized and the Governor will shortly announce the appointment of a new board to administer the Act.

W. H. Hood, Reno, has returned from a vacation of a month spent on the Coast, and has resumed practice.

The Elko County Society voted at a recent meeting to invite the State Association to meet at Elko in 1924.

Utah State Medical Association

J. R. MORRELL, M. D., Ogden - - President
WILLIAM L. RICH, M. D., Salt Lake - Secretary
W. R. CALDERWOOD, M. D., Associate Editor for Utah

Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—The meeting of January 14 was called to order by President A. A. Kerr. Forty-five members and two visitors were present.

Judge Harold M. Stephens spoke in behalf of Mrs. Stephens, chairman of the Home Hursing Committee of the Civic Center Board, in regard to training girls to do simple home nursing. He recommended that a committee be appointed to cooperate and advise with the civic center in regard to this matter. J. F. Critchlow moved that the society endorse the proposal to co-operate and advise with the civic center in regard to training girls in home nursing, and that the society co-operate with the civic center in carrying out this idea. Seconded by Middleton and carried. Holbrook moved that the Community Clinic Committee be appointed to act in co-operation with the civic center in the home-nursing project. Seconded and carried.

George Roberts presented a pathological specimen and gave the history of a very interesting and unusual patient who died of spontaneous rupture of the heart. Holbrook presented a case of tuberculosis of the spine with paralysis following injury, with improvement following treatment. X-ray films of the pathological condition were demonstrated. The case was discussed by J. F. Critchlow, Middleton, and A. J. Hosmer.

F. J. Curtis read a paper on "Dementia Praecox," stressing the etiological factors and the type of patient the disease occurs in. The paper was discussed by Roberts, Llewellyn, and John Z. Brown. Major S. C. Guerney of the United States Army gave a paper on "Medicine in the Tropics," stressing the importance of the laboratory diagnosis. He discussed diseases caused by amoeba, helminthes, and bacteria, diseases with unknown etiology and diseases caused by the absence of vitamines in food. The paper was discussed by Steele and J. F. Critchlow.

Applications for membership from F. K. Root, C. W. Woodruff, and J. C. Bown were read and given to the Board of Censors for action. The application of W. T. Cannon was voted on, and he was elected to membership.

A letter requesting aid for German physicians and scientists, written by William T. Peterson, secretary of the American Aid for German Medical Science, was read. Motion by Scott that the letter be layed upon the table. Carried.

BOOK REVIEWS

"The Infant and Young Child." By John Lovett Morse, M. D., Edwin T. Wyman, M. D., and Lewis Webb Hill, M. D.

This is a book that should be of great value to the young mother. It ought to relieve her of many worries and aid her more effectively to care for her infant because it is full of good, sound advice with little to which exception may be taken by the most critical. Especially is the teaching of preventive measures effective against the common diseases, as well as smallpox, diphtheria and tuberculosis, sound and complete.

The book is very well arranged. It is particularly interesting that the advice given can readily be applied for use on the Pacific Coast with little modification.

The authors stress the fact that many fallacies, in fact many actually harmful practices, have been handed down through generations from mother to daughter and thus perpetuated. These fallacies are emphasized and illustrated, especially amongst the notes on the care of the mouth, washing and caring for diapers, the warning against rubber diapers, as well as in the very sensible paragraphs about the infant's clothing.

The chapter on breast feeding emphasizes to the mother how important breast milk is to the well-being of her child and it brings to her sensible directions about her own diet and, especially, it deprecates "stuffing." Here on the West Coast many pediatricians differ from the authors and recommend longer intervals between nursings than the Boston writers advise.

A fundamental which ought to be burned into the consciousness of every mother and every physician is brought out when the authors insist upon the prime necessity for thorough physical examination of wet nurses and all other servants who may be brought into contact with children, particularly the dangers from such attendants as may have incipient pulmonary tuberculosis, cannot be too often or too forcibly stated.

Every pediatrician has individual preference in the artificial feeding of infants. The group of men working in California no longer cling to the use of the percentage methods or of top milk and cream mixtures to any great extent. It is also the practice among them to use more concentrated formulas than these authorities of the Boston school find advisable. Apart from this divergence of opinion, there can be only admiration and support for the excellent advice contained in the chapter on the preparation of foods, advice which includes the care of materials and of utensils and to which is appended a number of recipes that will prove of value to mothers. For the feeding of older infants, the practice in the West is to begin the use of cereals and vegetable pulp quite early, a practice which does not find favor with the authors of this book, who defer the use of vegetables until the child is past two years of age. Bacon and sugar are taboo to these writers; as a result their diets call for much larger quantities of milk and are much more dilute than those in general use in this part of the world.

The need for training children to sound habits of eating is very wisely dealt with. Attention is called to the extreme suggestibility of children, and it is pointed out that this suggestibility is active in forming likes and dislikes of children for this or that food. The common aversions that children may exhibit towards essential articles of diet have often been brought about by some chance remark of a parent or friend. (The reviewer is of the opinion that for this chapter alone the book is well worth putting into the hands of every mother.) In dealing with this phase of child psychology, the authors write: "As so many people are weak-minded and soft-hearted, it is not advisable to have young children come to the table."

Every pediatrician must agree with the authors when they frown upon the indiscriminate diagnosis of malnutrition, and upon their insistence that to properly manage a case of malnutrition, intelligent investigation into particular family characteristics, as well as attention to the peculiar characteristics of the child, must be undertaken.

There are very satisfying, concise, interesting chapters which discuss the development, care and home training of the child.

The authors' insight into the problems of prevention of disease is well shown in the following quotation regarding the lack of medical supervision of Sunday schools: "Strange as it may seem to some, it apparently makes no difference in the severity of whooping cough, measles and other contagious diseases whether they are contracted at Sunday school or not." It is certainly a commentary on human fallibility that pediatrists, physicians and child welfare workers spend so much time in investigating evils and in recommending reforms, and yet so often miss the greatest evils of all.

On the whole, this is a book that can hardly be bettered as a handbook for young mothers interested in sound, modern nursery practice. C. G.

Infection and Resistance. By Hans Zinsser, M. D. 3rd ed. 666 pages. New York: The Macmillan Co. 1923.

A third edition of Zinsser's work within a period of ten years indicates rather forcibly the rapidly changing views on the biologic aspects of immunity. However, we are seeing in these few years, and ahead, a crystallization of vague and discordant hypothesis into fundamental facts and a sound system of rational deduction.

Probably no phase of immunity is more vexing, more fascinating, more bewildering and more essential than our understanding of anaphylaxis. Zinsser has entirely rewritten the chapters on this state with a more vigorous and confident approach. The effort, and success, of taking under wing and correlating pseudo-anaphylactic and anaphylactoid processes is gratifying.

Complement-fixation theories, and especially technical procedures, are not up to time, and might even be considered stale. These chapters have hardly more than an interesting historical value.

This volume embraces in a free and most readable style the broad field of infection and resistance. Much is contained that is of purely historic interest but essential in bringing into modern focus, pioneer and even prophetic conceptions. There is a pronounced effort at avoiding technical presentations. These could be entirely deleted. Isohemolysins and agglutinins, in their present broader application are fully discussed. Chapters on therapeutic immunization, active and passive, together with the phase of non-specific immunization, should aid considerably in the intelligent use of biologic agents. The chapter on colloids which appeared in previous editions has been rightly omitted.

In a previous review, I believe that I suggested a general reading of Zinsser's work. It is a book that can be read here and there—preferably for not too long a time. Written in good style, on a fascinating and absorbing subject, and makes you think a lot. E. A. V.

Cerebrospinal Fluid in Health and in Disease. By Abraham Levinson. 267 pages. 2nd ed. St. Louis: C. V. Mosby Co. 1923.

This volume of 267 pages represents a large amount of personal work done by the author which is always valuable in any monograph.

Of special interest to those who are not cognizant of the difficulties encountered in the development

of a study of the cerebrospinal fluid, the opening chapter on the history of the cerebrospinal fluid is replete with interesting data, and stimulating to one interested in this subject. One can understand then the difficulties in the field from pure clinical observation to the results found in the physical laboratory.

For the researcher with the cerebrospinal fluid this work is not so valuable as to the student and general practitioner, because there are not enough details explaining the data given. However, the bibliography is well chosen and sufficient.

One would expect to find adequate description for performing the different tests, such as Lange Colloidal Gold Test, with enough detail described to perform these tests, but in this the book is sadly lacking.

The author separates the cerebrospinal fluid into non-meningitic and non-luetic, rather than normal fluid. It would have been interesting if a further explanation of this classification could have been given.

The reviewer has found that the chloride content of normal cerebrospinal fluid varies between the narrow limits. (0.72 and 0.74 per 100 ccs.) The author finds other variations, which I believe should be rechecked on a large number of fluids, as it is well known that the chlorides of normal fluids vary much less than other constituents.

On the whole, the book is well worth owning and studying. J. M. W.

American Illustrated Medical Dictionary (Dorland)—A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with the pronunciation, derivation, and definition. Twelfth edition, revised and enlarged. Edited by W. A. Newman Dorland, M. D. 1296 pages with 338 illustrations, 141 in colors. Containing over 3000 new words. Philadelphia and London: W. B. Saunders Company, 1923. Flexible Leather, $7 net; thumb-index, $8 net.

A copy of this splendid dictionary ought to be on the desk of every physician. It is prized so highly in the editorial offices of the Journal that the copy furnished by the publishers for review is used as the desk copy for the editor of the Journal.

Heart Records, Their Interpretation and Preparation. By S. Calvin Smith, M. D. 313 pages. Illustrated. Philadelphia: F. A. Davis Company. 1923. Price, $7.

This well-bound and well-written book is full of beautifully illustrated records.

The author has evidently experienced many of the difficulties which a beginner generally encounters in trying to set up an electrocardiographic outfit, so his advice is very valuable.

It seems impossible to get a book which will clearly illustrate the different electrocardiograms and give a clear explanation of the causes of the abnormal curves and also full advice to the beginner, who most often has to "set up" his outfit.

Calvin Smith fills the want as to the latter difficulties, but has left plenty of room for the former. However, his book is called "Heart Records," and that is what it contains. H. S.

Happiness itself is sufficient excuse. Beautiful things are right and true, so beautiful actions are those pleasing to the gods. Wise men have an inward sense of what is beautiful, and the highest wisdom is to trust this intuition and be guided by it. The answer to the last appeal of what is right lies within a man's own breast. Trust thyself.—Ethics of Aristotle.

BOOKS RECEIVED

Annual Report of the Surgeon-General of the Public Health Service of the United States, for the Fiscal Year 1923. Washington: Government Printing Office, 1923.

American Illustrated Medical Dictionary (Dorland). A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with the pronunciation, derivation, and definition. Twelfth edition, revised and enlarged. Edited by W. A. Newman Dorland, M. D. Large octavo of 1296 pages with 338 illustrations, 141 in colors. Containing over 300 new words. Philadelphia and London: W. B. Saunders Company, 1923. Flexible leather, $7 net; thumb-index, $8 net.

Neurologic Diagnosis. By Loyal E. Davis, M. D., Associate Professor of Surgery, Northwestern University Medical School; Fellow of the National Research Council. 12mo of 173 pages with 49 illustrations. W. B. Saunders Company, Philadelphia and London: 1923. Cloth, $2 net.

Operative Surgery. Covering the operative technic involved in the operations of general and special surgery. By Warren Stone Bickham, M. D., F. A. C. S. Former surgeon in charge of general surgery, Manhattan State Hospital, New York; former visiting surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original, and separate Desk Index volume. Now ready—Volume I containing 850 pages with 921 illustrations; Volume II containing 877 pages with 1008 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $10 per volume. Sold by subscription only. Index Volume free.

Medical and Veterinary Entomology, a text-book for use in schools and colleges, as well as a handbook for the use of physicians, veterinarians, and public health officials. By William B. Herms, Professor of Parasitology in the University of California. Second edition completely revised. New York: The Macmillan Company. 1923.

Pruritus of the Perineum (Pruritus Ani, Vulvae and Scroti). By Joseph Franklin Montague, M. D., of the Rectal Clinic, University and Bellevue Hospital Medical College. Foreword by George David Stewart, M. D., President New York Academy of Medicine. With 37 illustrations. Paul B. Hoeber, Inc., New York. 1924.

Children's Diseases for Nurses. By William Palmer Lucas, M. D., Professor of Pediatrics, University of California Medical School, San Francisco; Physician-in-Chief Children's Department, University of California Hospital, etc., New York: The Macmillan Company. 1923.

Medical Record Visiting List or Physicians' Diary, revised, New York: William Wood & Company, Medical Publishers.

International Clinics, a quarterly of illustrated clinical lectures and especially prepared original articles, by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, M. D., Philadelphia, with the collaboration of a distinguished staff. Volume IV, 33d series. 1923. Philadelphia and London: J. B. Lippincott Company. 1923.

Medicine in the Public Press

With this number of the Journal is introduced a column of comment on medicine in the public press. The editor invites comment on the advisability of making this column permanent and of elaborating it to include practically all of the appropriate "news."

The editor also invites every member of our association to send in all press clippings considered appropriate for discussion in this column.

Doctors Face Diploma Quiz—Under this and similar display headings the press announces that the Governor of California has instructed the Board of Medical Examiners to conduct an investigation into "Eastern diploma mills." "It has come to my attention,' the Governor is quoted as saying, "that fake medical diplomas are being turned out by certain spurious medical colleges in Eastern cities, and I would suggest that your board use every precaution to prevent graduates of such colleges from practicing in this State."

Why "spurious medical colleges in Eastern cities"? There probably is no state that has as many alleged colleges purporting to prepare "doctors" as does California. Certainly there is no state that can offer less adequate laws governing the establishment and operation of "colleges" as "doctor" factories.

Again, we wonder why we are getting so excited about the hypothetical few M. D.'s who may be graduates of "spurious Eastern colleges." Why not clean the state of those hundreds and probably thousands of inadequately educated persons, many of whom are "graduates" of legally operating California "doctor" schools, and others who don't even trouble to get licenses of any sort and don't even claim to have spent the many dollars and few hours of time necessary to get a "diploma" from mushroom schools in our own state? Who are these people and where are they practicing, you ask? Walk along the prominent streets of your cities and look at the signs. Do this at night and look at the electric-lighted signs. Look in the telephone directories and at the advertising sections of the newspapers.

Then what about those that have been convicted of practicing medicine without a license and pardoned by the Governor? What about the suits that at one time were pending against some 300 of these gentry and were dismissed?

The real situation should not be limited to the sudden "probings" against the dangers from a few possible graduates of Eastern "spurious schools" while our own state is the home of far more serious conditions.

Adequate legislation to cover one phase of this problem was passed all but unanimously by the last Legislature and was vetoed by the Governor for reasons that we hope he now wishes he had never uttered.

Health Questions—The statement that a minister of a San Francisco church received and answered from 10 to 50 questions a day was considered of news value and the minister was considered the most "asked" man in the city.

If the Better Health Service conducted by the League for the Conservation of Public Health were to have its questions drop to only 10 to 50 a day, we would know that there was something wrong with the service. And our questions are all about Health. This service is growing constantly in interest and importance. That it is being more and more appreciated by the public is attested by scores of letters daily. Hundreds of correspondents endorse the method of conducting the service in the name of an organization without the mention of the names of doctors or other medical agencies.

Rendering the Right Service in the Wrong Way—According to news items, the San Francisco public school department is entering the field of the practice of dentistry. An appropriation for funds to equip dental offices has been requested and approved. Every child, and adult for that matter, should have all the prophylactic, diagnostic and dental treatment service he needs. Particular attention should be given to children's teeth—even the temporary teeth. However, we doubt the wisdom of the schools' attempting to render this service, nor do we believe it at all necessary. If any public tax-supported bureau is to practice either medicine or dentistry, it should be the Health Board. Even this is neither necessary nor advisable until it is shown that the dental profession either cannot or will not meet the situation.

There are nearly 1000 dentists in San Francisco. Each of these already has offices, office help, equipment and other fixed expenses. They also have the necessary X-ray, laboratory, anesthesia and other contacts. In other words, they are fully prepared to practice dentistry. Why duplicate the large item of fixed charges connected with good service, which must be paid for by someone? Our casual questioning reveals the fact that there are too many dentists with so little to do that they must accept small compensation wherever offered. In addition to the hundreds of dentists' offices where overhead expense goes on even for those with little to do, there are a considerable number of clinics equipped to serve school children and others. There is now in San Francisco enough dental equipment, well arranged in offices and clinics, and enough personnel to take care of a population much greater than we now have. Why duplicate these costs and place the practice of dentistry under a bureau that cannot render the service?

"Fake" Medical Colleges—The press publishes an interview with P. T. Phillips, president, and C. B. Pinkham, secretary, of the California Board of Medical Examiners, which says: Two Los Angeles medical colleges face cancellation of charters and more than 20 practicing physicians of the State have orders to appear before the California State Medical Examiners to defend their right to practice. One of the Los Angeles institutions, the Pacific Medical College, is alleged to have sold a diploma for $300 to one of the doctors now under arrest in St. Louis. The other institution, the American University, is charged with having offered its diplomas for an "inducement" to Italians in Venice, Italy, who desired to come to America as full-fledged American doctors. Dr. Pinkham is quoted as saying: "This 'university' is a fake, according to information we have received concerning it. Its 'campus,' as reported to us, consists of a small upstairs room in a Los Angeles suburb. This room is fitted with a dilapidated bed, an aged desk, a few broken chairs, and serves as eating, sleeping and 'working' quarters for the 'dean.'"

Assuming these statements to be true—and we have no reason to believe otherwise—what are the people of California going to do about it?

As we have repeatedly shown in articles and once in an address on the floor of the Senate in Sacramento, there is no adequate State law to control the situation. If physicians and physicians' organizations had not tried hard to remedy the situation, we could be criticized with justice. However, we have done all we could, and we will keep on trying.

What was known as the Medical College bill was prepared by and introduced into the Senate and Assembly of the Legislature in 1921 by the League for the Conservation of Public Health. It passed the Senate and died in a committee in the Assem-

bly. This bill did not raise in any way the question of secular medicine. It provided that any college or school purporting to teach the healing art should be incorporated. In order to be incorporated, it should come up to certain specified and reasonable standards, in finances, equipment, attainments of teachers, and other assets, and that it should require a certain minimum of real work in specified fundamental subjects by students who had had reasonable preparatory education.

Some such law must be placed on the statute books of the state for the protection of the good name of the state, as well as the health and even the lives of our citizens.

There are a score or more of "colleges" in California that profess to educate people to treat the sick that are no better, if indeed they are as good, as some of the "colleges" responsible for the present national scandal.

License to treat the sick in most states is based upon alleged education. The cure is to safeguard the education by making decent requirements for schools, faculties and students.

Serum Is Discovered Again—News dispatches quote a doctor A. R. Dochez of Columbia University as announcing a curative serum for scarlet fever. It may be so, but the method of announcement seems to have earmarks that make us skeptical. It is usual to see announcements of this character during the winter months when scarlet fever is prevalent, and sometimes the senegambian shows up when the "new serum" is marketed. Let us hope the report is true.

Are There Fake Doctors in State Hospitals?—Press dispatches announce that Mr. W. D. Wagner, director of the State Department of Institutions, is going to find out. He is going to conduct a "searching investigation" to find out if any of the "diploma mill" doctors have crept into his service. This is quite easy. One letter will give him the complete educational record of all of his doctors. However, it's not likely that any will be found, for the type of "doctors" who buy diplomas are not those who will be content with the "enormous" salaries that the State pays its doctors to treat its mentally sick citizens.

And They Call Them Specialists—Under this title George Ade (Cosmopolitan) treats specialists of many kinds in his usual humorous vein. We all laugh at what he says and some will see the implied moral. He refers to specialization in medicine by saying: "Doctor Gazarius says that your teeth do not look right, so he turns you over to Doctor Escatorius, in charge of the X-ray. You get the awful-looking prints of your teeth, which resemble twilight in the Sierras, and you ask Doctor Escatorius how about it, and he says that the radiograph must be submitted to Doctor Giggleheim. After days have elapsed Doctor Giggleheim reports that numbers 3, 18, 27 and 31 are indicated for extraction. So you tell him to go ahead and pull, but he says no, he does no extracting, but you had better go to Doctor Walzabus with your chart and let him keep on pulling until you tell him to stop.

"So you are passed along, like one of the parts of a flivver. You started out by consulting a dentist and you finish by being a dumb unit in a great system."

Discoveries Announced Too Quick—Many American doctors and scientific men are too quick in their announcements of discoveries, Doctor Arthur Biedl, professor of medicine at Prague, tells our newspapers.

This is a true statement, but we are sorry that the doctor spoiled it by saying that "European scientists are more careful and conservative in making known their findings." We won't forget Friedman of turtle fame; Coue of beaded string fame; Voronoff, Steinach, and a host of others who, to express it mildly, make premature announcements.

Senility—Now that "doctor" Frank Crane has spoken, we know all about senility. There is nothing to indicate that he is more careful of some of his other statements than he is in repeating the one time facetious remarks of the late Doctor Osler. He says: "Senility has nothing in particular to do with old age. . . . I have discovered that youth and senility are mere attitudes toward life." With this remarkable definition of senility and the equally remarkable "discovery," this much read and popular writer concludes with this remarkable statement: "Another recipe for a full and happy old age is found in the advice of Nietszche: 'Live dangerously. Build your house on the side of a volcano.' We have spent a good deal of sympathy upon destitute old age. Our sympathy should be extended to old people who are perfectly safe."

This is part of the education! the public is getting in medicine and health.

Counterfeit Doctors—Under this heading the Hanford (California) Journal says editorially: "In a profession given to quackery, quacks would attract little attention. The counterfeiting of medical diplomas is in itself a tribute to the medical profession. Counterfeiting implies that the established currency is sound. So it is with this great profession. All the more reason, therefore, why the profession itself should make every effort to eliminate the quacks, and why the public should help by informing itself of every doctor's medical pedigree and ostracizing the occasional pretender or crook."

When the legislation proposed by the League for the Conservation of Public Health becomes law it will solve this situation.

Is R. C. Cabot Being Misquoted?—One of the strong points being used against the medical profession by those who treat the sick by curious means is a statement credited to Doctor R. C. Cabot of Boston that "I know from my own certain knowledge that the vast majority of physicians in Massachusetts cannot make a diagnosis of early tuberculosis. I do not believe that one-tenth of the physicians in any state can tell incipient tuberculosis when they see it from physical signs."

If Doctor Cabot did not make this foolish statement, there would seem to be chances for him to increase his income and render the cause of better health a service at the same time. If he is correctly quoted he should apologize to his colleagues.

Some of our other prominent members, particularly Mayo and Crile, are also being extensively quoted as making statements easily interpreted as derogatory to their colleagues. Are there not enough forces trying to destroy public confidence in physicians and open the door wide for the unqualified without the assistance they can so frequently and readily cull from the careless remarks of prominent physicians and teachers of medicine?

Baby Gets Chance for Life—The press of the entire country feature the story of an eight-months-old baby who was "rushed" from St. Louis to Doctor Jackson of Philadelphia, who "was declared the only person in the country who could remove a tack from the infant's bronchial tubes." Wonderful publicity for Doctor Jackson, but we can't understand how such a splendid opportunity for publicity ever got by Rochester, Minnesota. The implied

reflection upon St. Louis physicians who are expert in the use of the bronchoscope is not at all serious.

Increasing the Goat Industry—Press clippings announce that "goat milk, on an average, sells in this country for 25 to 50 cents a quart. The ordinary milk goat will furnish about 1400 pounds of milk a season, although the high grades give from 2000 to 2400 pounds. Three-quarters of a ton of alfalfa hay and one-fourth of a ton of grain will feed a doe for a year. And goats are immune to tuberculosis. Get your goat."

If the increase in the use of goat milk and other edible portions of goats continues; and if one element in the propagating of goats continues to be exploited, to make the old young again, we are liable to find difficulty in maintaining goat herds. However, this danger may not be as imminent as it appears, because the Journal recently refused a display advertisement from a slaughter house offering to supply the rejuvenation glands to all physicians, as they are now supplying them to some. No wonder abscesses are sometimes reported to follow injections of alleged pure goat gland extract which was purchased from slaughter houses.

The Perils of Psychology—"The Spectator" (S. F. Examiner) in discussing this subject considers the danger "in this present fad is that people shall get to contemplating themselves until they lose their normal vigor which characterizes the healthy and become probably sickly and certainly a nuisance. . . . Freud's researches and conclusions are of great value to those who are equipped to use them for the benefit of the race. But Freud becomes a pest in the hands of those who are ignorant and unskilled to use his theories. The chief peril for the amateur Freudian lies in the fact that much is made of repressed sexual tendencies much better dealt with under the purifying influences of idealism and in the wholesome activities of normal social life than by continuous self-study, which easily leads to morbidity."

Public Health Lectures at University Hospital—A series of lectures on health topics is announced for the next four months by the University of California Medical School. These lectures, by well-known bay city physicians and surgeons, will be delievered in Toland Hall, University Hospital, Third and Parnassus avenues, San Francisco, at 2:15 p. m., on successive Sundays, the initial lecture having been January 20 on "What the Public Should Know About the Prevention of Diphtheria," by E. C. Fleischner, M. D.

Lectures for the following months, it is announced, cover a wide variety of subjects, including modern dentistry, goiter, asthma, bone and joint diseases, vaccines and antitoxins, life expectancy, anesthesia, prenatal care, indigestion, cancer, and other topics of vital popular interest.

The American Congress on Internal Medicine—The eighth annual clinical session of the American Congress on Internal Medicine will be held in the amphitheaters, wards and laboratories of the various institutions concerned with medical teaching, at St. Louis, Mo., beginning Monday, February 18, 1924. Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to the Secretary-General.

Elsworth S. Smith, President,
St. Louis, Mo.

Frank Smithies, Secretary-General,
1002 N. Dearborn Street,
Chicago, Ill.

Correspondence

THE PHYSICIANS' CIVIC RESPONSIBILITIES

Letter from President Ray Lyman Wilbur of the A. M. A. to President T. C. Edwards of the California Medical Association, and Doctor Edward's reply:

President Wilbur: "If we of the medical profession are to play our proper part in public affairs we must work largely through existing organizations. This, it seems to me, means that every State medical association should have a well-organized committee on public welfare and legislation. Such a committee to be effective must deal in a practical way with men and with legislation. It seems to me desirable for it to make plans along three lines: (1) See that the best possible candidates are nominated, particularly for State offices; (2) See that of the candidates nominated the best possible are supported for election; (3) See that candidates before and after election are kept fully and accurately informed concerning matters pertaining to public health and the medical profession.

It is important to have this subject approached on a basis that will not seem purely selfish, but that will be for the good of the public in general, which, of course, means that it will be satisfactory to the medical profession.

It is of advantage if the chairman of the committee is one who has demonstrated his efficiency by past service and who can be induced to keep the position for some considerable period of time. His efficiency will depend upon the extent of his acquaintance, his knowledge of legislative procedure, and will naturally increase with each year's service.

In order to handle the administrative work of the committee, a good secretary is necessary. Either the chairman or the secretary should reside at the State capital and, if possible, they should reside so that they can have frequent personal conferences.

Some of the State associations are already effectively organized along these lines or others that have been proven by local experience to be equally satisfactory. In some States the arrangement is not so fortunate and it is particularly in these States that I urge prompt organization. If we are to present the uniform front that is necessary, effective organization in every State is essential. This applies both to State and National affairs. Organization should not wait until the Legislature meets or Congress convenes, but such action as may be necessary should be taken at once.

There has been set up at Association headquarters a Bureal of Legal Medicine and Legislation, which can be called upon freely by the legislative committee for suggestions and advice. I hope very much that the officers of your society will review their present plans in this regard or consider new ones, and that they will take particular note of the desire of the Association to be of service through the establishment of the Bureau of Legal Medicine and Legislation under Dr. Woodward."

President Edwards: "Your letter of October 31, 1923, which was sent to every State medical association, suggesting the need for 'a well-organized committee on public welfare and legislation,' was referred by me to the January meeting of the Executive Committee of the State Association. I said in my letter to you of November 15, that it was my impression that, as far as California is concerned, the proposed work of such a committee was being effectively covered by the League for the Conservation of Public Health.

I felt, however, that my judgment alone should not decide such an important question. The Execu-

tive Committee agrees thoroughly with you on the need for such work as you have alluded to and that, wherever possible, existing organizations should do the work.

The League for the Conservation of Public Health has been doing this work since 1918, and you are familiar with the successful record it has made. The American Medical Association and our State Medical Association have repeatedly complimented the League for its hospital betterment work, better health service, and for its legislative campaigns for the improvement of laws relating to preventive medicine and the prevention of legislation that would lower the standards of health and retard the practice of medicine.

The League is actively engaged in solving the problems that would come within the functions of a committee on public welfare and legislation and has accumulated a vast fund of information. As far as we are informed, we do not know of any organization in any State that has better trained personnel that is as vigilant in watching the tendencies and movements as our League. The League has more information on the factors behind various legislative measures, political groups, assemblymen and senators, the various welfare movements, the anti-medical forces and their sources of strength, the newspapers and other channels of publicity than any other organization of which we have any knowledge.

The life blood of every movement is publicity, and the executive secretary of the League is recognized throughout the country as a publicity director of outstanding character and ability.

Many of the present welfare and legislative problems come within the field of hospital betterment. The splendid committee of the League, consisting of Doctor W. E. Musgrave, Chairman, Doctors William Ophuls, Percy T. Nagan and John H. Graves, insures that this vital work is being ably handled.

The League pointed out, at its recent annual meeting, the civic duty of the members of the medical profession to select men of intelligence and integrity for legislators, men who recognize the value and need of scientific medicine and its essential agencies. The time to insure good legislation by selecting such men is at the primaries and not at the general election. If unfit tickets are selected at the primaries they cannot be defeated in November, and it makes legislative work at Sacramento desperately difficult. The League has had to fight some of its legislative battles under heavy handicaps. In one of the battles which it fought and won for the hospitals, the official public health forces were on the opposite side; in a battle on nursing education, won by the League, Union Labor was the opponent; in numberless contests all of the cults were combined against the League. The League has not lost a single legislative battle. In one contest, widely heralded by the press of the State, the administration tried to pass the so-called Professional Standards Bill. As it would have demoralized professional standards here, it was opposed and defeated by the League.

Medical men are composed of all shades of political belief and they seem to take less interest and have less information about the candidates they support and the issues they favor than any other group. In all important campaigns we find the members of the medical profession arrayed against one another. The League has done more to unify and solidify their efforts and thereby make them more effective than any other organization.

As the official personnel of the League is composed of leading members of our State Association, I can assure you that any request from you will be welcomed by the League and given hearty co-operation."

THE OWNERSHIP OF PATIENTS' RECORDS

F. W. Rinkenberger, M. D., of Los Angeles submits the following question:

"As a hypothetical problem, we will say that patient 'A' has been under the care of surgeon 'B,' and does not regain his health, and later consults surgeon 'C.' 'A' is unable to give 'C' definite information as to the surgical procedures he has undergone, or the conditions found at operation. 'C' goes to the hospital and asks for the chart of 'A,' but is refused permission to see the same without the permission of 'B.'

"It always seemed to me that this is a source of friction, inasmuch as it must be conceded that a patient has a right to change his medical or surgical attendants if he sees fit, provided there is nothing underhanded, or any influence brought to bear to cause the patient to change his or her mind, and it would seem to me that the right to the chart or record containing the laboratory reports, and all the other details which are really of value to the patient, should be subject to his or her order on the hospital without the permission of the previous attendant, who might, through selfish motives, or otherwise, object to a later attendant having the value of the previous findings. Yet it is for the benefit of the patient (as I see it) that we keep these records.

"I would greatly appreciate your ideas on the subject, and as it is a question that must often come up in different parts of the country, I believe it would be of value if you would print your opinions on the subject in the State Journal of Medicine."

Answer—Clinical records should be, and are in the majority of instances, prepared primarily in the interest and welfare of the patient; secondarily, they serve as an important guide to the physician. They enable the physician or physicians, as the case may be, to recall many details which at any time may become important, and the mere fact of writing the record necessitates a clear crystallization of the physician's ideas about the patient. This latter is a most important and much neglected qualification, and one that ought to be taught more than it is to young men and women just starting their professional careers.

In many countries and some States the law makes the patient's clinical record the property (privileged communication property) of the physician or the institution in which the record was prepared. So far as I know there is little law and few court decisions that bear directly upon the point as to whether, in case the patient is in a hospital, the record is the property of the physician who attended the patient or whether it is the property of the institution. Certainly, with any reasonable, fair and unselfish interpretation, it ought not to be necessary to decide this point. If the physician is the kind of a physician he ought to be, and if the hospital is the kind of a hospital it ought to be, the patient's record, regardless of who prepared it, obviously should be available to any subsequent physician holding the position of attending physician to that patient. Otherwise we defeat the primary and most important reason for preparing these records. No honest, conscientious, unselfish, fair-minded physician will ever, under any circumstances, refuse the written record or whatever personal opinion he may have regarding a former patient to another physician who may be at a later time attending this patient.

Many of the best hospitals in California have a rule that the record of any patient is available to that patient's physician at any time he wishes to consult it. Of course, it is extremely important that the data frequently contained in well-prepared records of patients be safeguarded against scrutiny by unauthorized and improper persons. In many States this is particularly and specifically protected by law. It should be better protected by law than it is in the State of California.

BOARD OF MEDICAL EXAMINERS, STATE OF CALIFORNIA

(Reported by C. B. Pinkham, Secretary)

"John of God": We have had many complaints against Juan de Dios Garay ("John of God") and have spent considerable time within the past two years trying to put him out of business. It has been almost impossible to convict him of violation of the State Medical Practice Act.

At each time I went through Garay's office with a search warrant, I found thousands of letters—letters from sick or afflicted; letters from the lonely or lovesick; letters from those who sought his occult powers for almost everything imaginable—and in each case carbon copies of his replies, showing him to be an artist in the art of extracting money from the credulous.

In one case a Mexican boy from Fresno sent $50 to gain the love of a 13-year-old Mexican girl, and "Juan de Dios" sent him a package of white powders with instructions to divide them into 14 equal parts and to burn one of such parts each night between 11 and 12 o'clock.

To some he sent bottles of his "Aztec Treatment," a concoction of herbs. He even had made some plaster medallions bearing a likeness of himself, which he sold to patients. Some of his patients regard him almost as a god.

Enclosed is a clipping from the Los Angeles Examiner of December 16, 1923, regarding the arrest of Garay by postoffice inspectors on a charge of using the mails to defraud. I furnished the postoffice inspectors with copies of circular letters mentioned in the clipping, and gave them sufficient information to secure his indictment by the United States Grand Jury, and I trust that this will be the "finish" of "John of God."

In commenting upon the above abstract of a report of the board's special agent, Doctor Pinkham says: "The enclosed letter shows the legal difficulties we experience in trying to prosecute 'fakirs' and 'quacks.' You will note that our special agent reports no success in prosecutions in local police courts, and it was not until the postoffice inspectors took action that we were able to accomplish anything.

The Los Angeles Examiner of December 16, 1923, in printing an article relating to the arrest of Juan de Dios ("John of God") Garay stated that 'Authorities state that Garay has obtained more than $300,000 from ignorant Mexicans and negroes during the past ten years in his operations in Los Angeles.'"

Letter Explaining Osteopathic Initiative—Under the provisions of the Osteopathic Initiative passed by the people of the State of California at the November, 1922, election, the Board of Osteopathic Examiners is given sole jurisdiction over graduates of osteopathic schools, and is empowered to carry out all the provisions of the Medical Practice Act in the instance of graduates of chiropractic schools. This means that the board of osteopathic examiners can license graduates of osteopathic schools as either drugless practitioners or physicians and surgeons; can collect the annual tax from all such individuals and otherwise perform the functions provided under the Medical Practice Act.

According to the 1923 directory published by the Osteopathic Board, Harold L. Jason holds a physician and surgeon certificate, which entitles him to unlimited practice in the State of California.

Naturopathy Legally Defined—Herewith we submit a copy of a communication from our chief counsel, Adolphus B. Bianchi, relative to a court decision establishing the limitation of the certificate to practice naturopathy, which many of the readers of the Journal know was validated in the State of California by special act of the Legislature in the year 1909, the enactment demanding that the Board of Medical Examiners endorse all certificates issued by the Naturopathic Association of the State of California that were presented to said Board within a certain period.

The Legislature failed to define what naturopathy was nor did the Legislature require that the holders of said certificate file with the Board of Medical Examiners any evidence of professional education.

For many years the holders of these validated naturopathic certificates have considered themselves as physicians and surgeons until the courts decided their limitation, stated by Chief Counsel Bianchi as follows:

"The recent appellate decision in the matter of Millsap vs. Alderson, et al, 42 Cal. App. Dec. 29, removes all the clouds from this situation. A naturopath is not a physician and surgeon, and under the license issued to him as such naturopath by the State Board of Medical Examiners, he cannot perform surgery. He is not authorized to practice medicine and surgery as a physician and surgeon so licensed by the Board may practice.

The decision further restricts the practice of any naturopath. 'Therefore, the substance employed by one practicing naturopathy in the treatment of the sick and afflicted would be light, air, water, etc., and a naturopath, or a doctor of naturopathy, would be a person who holds an unrevoked certificate from the Board of Medical Examiners authorizing him to treat the sick and afflicted by the use of the substances above enumerated.' That is to say, the substance enumerated in other parts of the decision as being contained and set forth in the Articles of Incorporation of the Association of Naturopathics of the State of California. The Gerber decision is no longer applicable. A nauropath is not entitled to hold himself out or designate himself or practice as a physician and surgeon."

Naturopathic Licentiates of the State of California—Attention of physicians is drawn to a decision, Civil No. 3951, Second Appellate District, Division No. 1, rendered August 25, 1923, in the case of Roy Millsap, petitioner and respondent, vs. Harry E. Alderson et al., constituting the Board of Medical Examiners, wherein the court holds that a naturopath is not a physician and surgeon, and the certificate to practice naturopathy does not constitute the right to practice medicine and surgery. Roy Millsap appealed to the Supreme Court for a rehearing, which was denied on October 23, 1923, hence the opinion above referred to is now the law in the State of California, and we are drawing it to your attention in order that you may be guided thereby.

United States Marine Hospitals Crowded—"Owing to the increased amount of shipping on the Pacific Coast, the Marine hospitals at San Francisco and Port Townsend, operated by the United States Public Health Service, are now overcrowded," Surgeon-General Hugh S. Cumming announced today. So great has been the influx of patients, due to the increased activity in American shipping in San Francisco, that the Public Health Service has found it necessary to place many patients in contract hospitals. To increase the capacity at San Francisco, the service now plans to remove attendants from their quarters to furnished lodgings in the downtown section of the city. By doing this, thirty-eight beds will be added to the capacity of this hospital. Surgeon-General Cumming also announced that "plans for the enlargement of the Marine hospital at San Francisco and for a new Marine hospital to be constructed at Seattle, Wash., are now receiving serious consideration, but that appropriations for these projects will be necessary before they can be undertaken."

O. G. Wicherski. M D.

Doctor Otto Gustav Wicherski

After an illness of only a few weeks and from the midst of a busy life of public service, Dr. O. G. Wicherski was called on January 2 to higher service for the Master.

Born in New Ulm, Minnesota, forty-seven years ago his has been a life filled to the brim with service for others. His first active work after careful preparation was that honored calling of teaching school. From this he graduated into the study of medicine, receiving his M. D. degree from Rush Medical College in 1904. After a hospital internship and a few years of general practice in South Dakota and Nevada he affiliated himself with Dr. D'Arcy Powers on the faculty of the Post-graduate Medical School of San Francisco. Of his work here Dr. Powers always expressed himself in the warmest terms.

Locating in San Diego in 1911, he rapidly became prominent; his unusual executive expressing itself in public health work for the county and city. For the past six years he has been Medical Director of the San Diego County General Hospital, to which office he applied his talents with energy and intelligence. His was a rule of heart as well as brain, which union is so essential in caring for the poor. During the trying times of hospital betterment he has enjoyed the whole-hearted support and co-operation alike of the county supervisors, the general public and the medical profession.

Of Dr. Wicherski's devotion to duty it may truly be said that he left the sphere of his efforts the richer by reason of his contact with it.

R. P.

With Our Advertisers

A well-defined movement is obvious among all classes of good journalism to so adjust the mechanism of their publications that their advertising columns shall be read with as much interest as other reading matter, because they are equally informative and attractive. It may not be out of place to repeat again what we have so often said, that the California State Journal of Medicine is enabled to be what it is more from the income derived from advertising than from any other source. Advertisers very properly scrutinize returns on their investments in advertising, just as they do on any other investments, and if the Journal is to go ahead and improve, we should see to it that those who invest with us get returns on their money.

Optical Companies—It is a pleasure to call the attention of our readers to the page advertisement of the Riggs Optical Company appearing in this issue of the Journal and to emphasize the high-class copy they include in that advertisement. The confusion that has existed in this important field of medicine has been a source of concern to physicians, patients and technicians in the optical field, but the situation seems to be clarifying itself to a certain extent, and the position taken by some of our good optical companies is helping in this clarification, to the interests of the people who need and must wear glasses.

We have been carrying for a very considerable time the advertisements of the Trainor-Parsons Optical Company and the John F. Wooster Company, both of San Francisco, who announce themselves as high-grade prescription opticians. Manufacturing and technical people who take the advanced stand required to securing advertising space in our Journal ought to be encouraged in that stand by the ophthalmologists who write prescriptions.

Medical Book Department of The Emporium—We are glad to call attention to the announcement of The Emporium, beginning in this issue, inviting you "to browse at your leisure" in their Medical Book Section and to use the department as a reference and reading room. Their stock of medical books is very complete, including a great many foreign importations, and they will order for you any book in print, even cabling to their foreign offices in all parts of the world. Orders from out of town will also have their prompt attention. This service, with that of J. W. Stacey, whose announcement has been carried in the Journal for the past few months, insures for San Francisco and California adequate supply departments for all sorts of medical and techincal literature, for physicians, dentists, and nurses.

Medical Illustrating—The Journal carries constantly the card of Mr. Ralph Sweet, who is devoting his entire time to medical illustrating. Now that the annual meeting of the California Medical Association is approaching, and also that of the American Medical Association, it seems appropriate to call attention to this service. We do not hesitate to endorse Mr. Sweet as a very competent medical illustrator, nor do we hesitate to say that illustrations that illustrate are an extremely valuable part of medical publications, as they are of other publications.

Our Iletin (Insulin, Lilly) Advertisement—In this number we carry perhaps the most extensive and carefully prepared color two-page advertisement ever produced in the Journal. This is the announcement of Eli Lilly and Company with reference to iletin. Eli Lilly and Company announcements are always of value and interest, and are found in our advertising columns constantly.

Address of the Retiring President, Los Angeles County Medical Association—"No man can serve this society for one year in the presidential chair without forming serious convictions as to its welfare," said William H. Gilbert, president of the Los Angeles County Medical Association during 1923, in his address as retiring president, (Bulletin Los Angeles County Medical Association, Jan. 17, 1924). "On all sides one hears the voices of the boosters and the knockers. The attitude of a leading newspaper, which for years has carried on propaganda against the medical profession has not only seriously influenced the minds of the people but has struck a terrible blow at the morale of the profession itself. . . .

It is surprising when one considers that this association numbers thirteen hundred members that its regular attendance is so small. One cannot say that the scientific papers have not been interesting or well prepared. As you know the prime motive of the county medical unit is education. In fact the county unit should be a post graduate medical school. One hears occasionally that the papers, no matter how well prepared, are poorly delivered, and I must confess that I have sat in this chair, and heard the most scholarly dissertations mumbled over and delivered in such a manner they could not be heard or understood beyond the first three or four rows. Essayists do not seem to realize that the man who listens is entitled to a square deal in the delivery of the paper, and that it should be read in such a manner as to be impressive and instructive. Without doubt most of the poor attendance of the parent body is due to the large number of meetings held by the subordinate branches, hospital staffs and various other medical organizations. In fact the time has arrived when the man that keeps up his attendance in the various branches of this society and the hospital staffs with which he is affiliated is spending more nights away from home than is justifiable."

DEATHS

Anderson, Ross R. Died at Los Angeles, January 17, 1924. Graduate of the College of Physicians and Surgeons, Baltimore, 1905. He was a member of the Los Angeles County Medical Society, the California Medical Association and the American Medical Association.

Dresel, Gustav. Died at San Francisco, January 1, 1924, age 67. Graduate of the University of Frankfort-on-the-Main, Germany, 1882. Licensed in California 1884. He was a member of the San Francisco County Medical Society, the California Medical Association and a fellow of the American Medical Association.

Wicherski, Otto Gustav. Died at San Diego, January 2, 1924, age 47. Graduate of Rush Medical College, Chicago, 1904. Licensed in California, 1910. He was a member of the San Diego County Medical Society, the California Medical Association and a fellow of the American Medical Association.

Wythe, Stephen. Died at Oakland, December 25, 1923, age 50. Graduate of Cooper Medical College, San Francisco, 1895. Licensed in California, 1896. He was a member of the Alameda County Medical Society, the California Medical Association and the American Medical Association.

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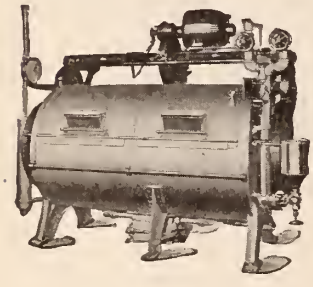

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Hereditary Hemoptysis—For seven years Emanuel Libman and Reuben Ottenberg, New York (Journal A. M. A., December 15, 1923), have had under observation a family of bleeders. In this family, seven persons presented almost identical histories of repeated profuse hemoptyses beginning about puberty or in early adult life and occurring at intervals throughout life. The heredity of the disease in this family is not sex-limited. The disease occurs in and is transmitted by females as well as by males. The hemorrhages occur only at or after the age of puberty, the earliest hemorrhage recorded in any individual being at the age of 12 years. None of the hemorrhages have been fatal. Tuberculosis has been excluded as the cause of the hemorrhage. The only comparable disease is the "idiopathic family hematuria" described by Apert, which has been observed in two families. The condition seems not to skip generations.

CALIFORNIA
AND
WESTERN MEDICINE

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Official Organ of the California, Nevada and Utah Medical Associations

Veterans' Notice

"THE INSURANCE DIVISION of the Veterans' Bureau is endeavoring to tell one hundred fifty odd thousand ex-service men in California that in their scramble to re-enter civilian life at the close of the late war, they left on the shelves of the Government about a billion dollars of life insurance that belongs to them and for which no one else may make claim," says Louis T. Grant, Manager Twelfth District. "Some of them have called for their share, but millions of dollars of the best and cheapest insurance on earth is still awaiting rightful owners who for the most part do not know about it.

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(Continuing the California State Journal of Medicine)

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CALIFORNIA AND WESTERN MEDICINE

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VOL. XXII MARCH, 1924 No. 3

ORIGINAL ARTICLES

RESPONSIBILITY FOR STATEMENTS AND CONCLUSIONS IN ORIGINAL ARTICLES

The author of an article appearing in the CALIFORNIA AND WESTERN MEDICINE *is entirely responsible for all statements and conclusions. These may or may not be in harmony with the views of the editorial staff. Furthermore, authors are largely responsible for the language and method of presenting their subjects. All manuscripts will be carefully read, but editorial privileges will be exercised only to a very limited extent. It is believed that the manner of presentation of any subject by any author determines to no small degree the value of his conclusions. Therefore, both the author and the reader, in our opinion, are entitled to have the subject as presented by the author as little disturbed as possible by the editors. However, the right to reduce or reject any article is always reserved.*

INTESTINAL PROTOZOA—A REVIEW FROM THE STANFORD MEDICAL CLINIC *

By ALFRED C. REED, M. D., and HARRY A. WYCKOFF, M. D., of San Francisco

(From the Stanford University Medical School.)

During the past year there have come under our observation in the Stanford Clinic of Parasitology and Tropical Medicine ninety-five cases of intestinal protozoal infections. The varieties and frequency of these protozoa were as follows:

E. coli, 56; E. histolytica, 17; giardia, 18; iodameba, 5; chilomastix, 7; trichomonas, 3; E. nana, 6; balantidium, 1.

It is our desire at this time to give a very brief resumé of these cases and the conclusions we have reached, especially with regard to pathogenicity and treatment.

Of the 95 cases, 65 harbored a single intestinal parasite. Thirty had multiple infections. Several were complicated further by the presence of helminths, chiefly trichuris, Bothriocephalis, hookworm, and oxyuris. One Mexican boy of 15 years showed a mixed infection with E. coli, E. hystolytica, iodameba, giardia, and trichiuris. Of the 95 cases, 48 had never been outside the United States, and of these most had lived at least five years in California. The other 47 cases were drawn from twenty different foreign countries, Italy supplying the largest number of 7. Thirty-one cases were females and 64 males. The age incidence was not significant. Sixty-three cases, or 66 per cent, presented a history of gastro-intestinal disturbances. Of these 63, 36 had associated some other unrelated definite disease condition. Of the 32 in whom no history of gastro-intestinal abnormality was found, 1 each suffered from asthma, cancer, Detel's crisis, bronchitis, diabetes, venereal disease, malaria, and Addison's disease. In three each the outstanding difficulty was hypertension and psychosis. Eye, ear, and throat disorders claimed a total of 7; heart disease, 5; and Type II arthritis, 6. Thus 32, or 33 per cent of all the cases, were discovered in the course of a general complete examination for some condition not referred to the gastro-intestinal tract. In these 32 cases the relation of the parasite to the clinical condition present is of considerable interest. Twenty of these cases were cured of their protozoal infections by treatment. In each case where the protozoa were eradicated, a definite clinical improvement in the patient was noted. This was in the group where no gastro-intestinal disturbance was found, past or present. Only one inference can be drawn. There must have been some pathologic effect of the protozoa on their host. In only a few cases could one assume any direct relation between the protozoa and the pathology present. In most it seems that the presence of the protozoa tended to decrease the resistance of the host to the major disease condition present and the removal of this intestinal handicap improved the vitality and the reaction against whatever other pathologic factors were present.

Of the total 95 cases, 15 suffered from Type II hypertrophic arthritis. These have been discussed elsewhere. No characteristic or remarkable findings were noted in the blood counts. A blood count was made on each. So far as red cells and hemoglobin was concerned, 53 were normal and 42 anemic to some degree, none severe. In 14 cases the eosinophil count exceeded 3 per cent. In these 14 the average eosinophilia was 6.7 per cent.

The association of constipation or diarrhea with the parasites was interesting. Of the 95 cases, 46, or 48 per cent, reported normal regularity of bowel movements. Diarrhea was predominant in 13, or 13 per cent, and marked constipation was the rule in 36, or 41 per cent.

CONCLUSIONS

From the study of this series we have drawn three general conclusions:

1. In no case can it be said with safety that the presence of intestinal protozoa is not of pathogenic importance. This statement is made irrespective of the variety of protozoan. In nearly every

* Presented to the Section on Medicine at the Fifty-second annual session of the California Medical Association.

case there is present either pathology or symptoms which can be related logically in some connection with the protozoan infection. The presence of the protozoa seems to constitute an added handicap in the reaction of the host to other and unrelated disease conditions. With this handicap removed, a better fight is waged against other morbid factors. The corollary of this conclusion is that intestinal protozoa are at least potentially pathogenic. At another time we will discuss the detailed pathogenicity of E. coli including the so-called Councilmania type. The variation in pathogenicity between E. histolytica and the less dangerous flagellates, such as trichomonas, need not be any greater than the actual variation in pathogenicity of E. histolytica in different hosts and under varying circumstances.

2. The only pathognomonic or even seriously suspicious indication of the presence of a protozoan intestinal infection is furnished by the microscopic demonstration of the organisms in the stools. Calling to mind the occurrence in our series of such a marked disproportion between gastro-intestinal and diarrheic symptoms and the presence of protozoa, it is evident that no clinical observation of any sort will furnish the clue to the presence of protozoa. Every patient suffering from gastro-intestinal disturbance should be examined for protozoa. Every case of obscure or incomplete diagnosis should have an examination for protozoa. And to these we might add, every patient with chronic diseases which are resistant to treatment, should have an examination for protozoa. For clinical purposes, a patient cannot be said with reasonable certainty to be free of protozoa short of six stool examinations by a competent examiner on six different days, including specimens following epsom salts.

3. Our experience has gradually led us to a fairly routine and standard type of treatment. Many drugs and methods have been tried out. We are now engaged on the investigation of better methods for the treatment of flagellates. At present they are ordinarily almost incurable except by persistent and severe measures. In our series among those patients who received a full course of treatment and where at least two months have elapsed with cyst-free stools, we find the eradication of E. coli in 12 cases, E. histolytica in 9 cases, E. coli (Councilmania type) in 11 cases, giardia in 8 cases, and chilomastix in 1 case. For amebas we feel that cure can be considered established if the stools remain cyst-free for two months following the termination of treatment. In the case of flagellates this limit is not sufficient. In one of our cases of giardia, cysts reappeared after an absence of five months. The criterion of cure in flagellate infections is still indefinite.

Our standard treatment for all intestinal protozoa is as follows: Ten daily hypodermics of emetin hydrochloride, 1 grain each. These are followed by pills or powder of bismuth emetin iodide, 3 grains daily, to a total of 40 grains. At the same time three full doses of neosalvarsan are administered at weekly intervals. In the case of flagellates as well as in long-standing cases of E. histolytica infections, massive colon irrigations are frequently added, using 1:2000 thymol or quinin, and later, oil enemas containing camphor, aristol, and similar anti-parasiticides.

Carbon tetrachloride has been carefully employed in moderate as well as large dosage, and has proved useless for protozoa and cestodes. We have found its only value to be against nematodes. Incidentally, we have found that 15 cc. of carbon tetrachloride given in an iced diluted emulsion is quite safe when the liver and kidneys are fairly normal. Two types of reaction occur with this drug. First, that associated with direct irritation of the stomach. Second, that which is characteristic of chloroform poisoning, either immediate or delayed. One man, a Spaniard with hookworm, inadvertently received 35 cc. of carbon tetrachloride. Within two hours he suffered a severe chill, an epilepti form seizure, severe vomiting, and then somnolence. His recovery was complete, but the hookworms were not removed.

Following the standard treatment outlined above, a certain number of patients will develop mild symptoms of emetin poisoning, and the course of treatment must be modified accordingly. The commonest symptoms of this sort are weakness, especially of the lower extremities, breathlessness, and undue tiring. Some patients are intolerant of bismuth emetin iodide, and vomiting can only be prevented by varying the method of administration.

Considering the wide prevalence in California of protozoan infections of man, the wide dissemination of cysts by persons who act as carriers, and the pathologic importance of the parasite for clinical medicine, we believe more detailed attention to them by the physician in general would be justifiable.

350 Post St.

DISCUSSION

Roy W. Hammack, Pacific Mutual Building, Los Angeles—The growing interest in the subject of intestinal protozoa is well reflected in this paper. It is my experience in the laboratory that the demand for stool examinations is rapidly increasing. Yet our knowledge of the pathogenicity of the intestinal protozoa has not grown so rapidly as our knowledge of the occurrence and character of the organisms themselves. We hear every variety of opinion regarding the effect of the protozoa on the host from the one extreme view that only E. histolytica is pathogenic, to the other, that all protozoa are pathogenic. Some enthusiasts even claim to be able to predict from the symptoms of a patient the finding of flagellates in the stool. Studies in pathologic anatomy, while sometimes suggestive, have proven little except in amebiasis. Experimental investigation of the manner of action of these organisms is greatly needed, but unfortunately the problem is a very difficult one.

Such a study and critical review of a large number of infections as presented in this paper is a real contribution to our knowledge of protozoan infections. The authors' conclusions are, I believe, sound and conservative; yet one cannot help wishing for more detailed evidence in their support. Particularly is this true of the statement that "In nearly every case there is present either pathology or symptoms which can be related logically in some connection with the protozoan infection."

Alfred C. Reed (closing)—Hammack's point is well taken. In an earlier paper we had discussed this in more detail, and at this time, for the sake of brevity, merely state our conclusions. It is our belief that the lines needing special investigation are chiefly two: First, improved treatment of all the

intestinal protozoa. Second, definite information as to their individual pathogenicity. Our ideas on this subject have been elaborated elsewhere.

Harry A. Wyckoff (closing)—It is indeed true that our knowledge relating to the pathogenicity of intestinal protozoa is very imperfect.

We have endeavored, in another place, to collect some facts in this connection, with a view to establishing a nucleus around which the results of further observation might be grouped. The present paper is the record of an attempt to utilize clinical material in carrying out this plan.

EFFECT OF STRUCTURAL CHANGES IN THE LUMBAR AND PELVIC REGIONS ON THE SCIATIC NERVE *

By HALBERT W. CHAPPEL, M. D., Los Angeles

Malformation, disease, or trauma of the lumbar spine or pelvis, may cause motor or sensory symptoms along the entire course of the sciatic nerve, or in a very limited area supplied by it. The lumbar vertebrae, five in number, are the largest of the movable vertebrae, the body having a greater diameter transversely than from before backward, with short thick laminae, a spinous process which projects horizontally backward, and slender transverse processes extending directly outward. The articular processes are thick and strong, and their articular surfaces are vertical, the superior, concave, look backward and inward, while the inferior, convex, look forward and outward. The movable vertebrae are joined together by elastic discs between the bodies, by synovial joints between the articular processes, and by strong ligaments. The fifth lumbar vertebra is joined to the first sacral vertebra by anterior and posterior ligaments of the bodies, capsular ligaments of the articular processes, the ligamenta subflava of the arches, supraspinous and interspinous ligaments, and by an intervertebral disc. The lateral lumbo-sacral ligament, and the ilio-lumbar ligament also add to the stability of the lumbo-sacral synchondrosis.

The sacrum, situated just below the last lumbar vertebra and articulating with it, in the adult is the union of five vertebrae. It also articulates laterally with the ilii, forming a complete joint with cartilage, synovial membrane ligaments, and supporting muscles and having slight but real motion of a sliding type. Inferiorly, the sacrum articulates with the coccyx. The ilium, together with the os pubis and ischium form the innominate bone and with its neighbor of the opposite side complete the bony formation of the pelvis.

The line of weight bearing, which passes to the innominate bones through the lumbar vertebrae and sacrum, is not a vertical one, and in the erect posture there is a constant tendency for the fifth lumbar vertebra to sag forward and downward on the sacrum, being prevented normally by muscular and ligamentous action, and by maintaining the normal curves of the spinal column.

The sciatic nerve, the longest and most widely distributed in the human body, originates in the fourth and fifth lumbar roots and the first, second, and third sacral roots, the branches from which form the lumbo-sacral cord, uniting at the level of the sciatic notch. Passing around the ischial spine, it descends in the posterior part of the buttocks between the ischium and great trochanter, to and down the posterior aspect of the thigh, becoming superficial at the upper end of the popliteal space, where it divides into the external popliteal and internal popliteal nerves which supply the motor and sensory regions below the knee. The sacral plexus and its branches before uniting to form the sciatic nerve, lie very close to the lower lumbar spine, the lumbo-sacral articulation and the sacro-iliac synchondrosis.

Congenital variations of the sacrum and fifth lumbar vertebra are quite common. A fifth lumbar vertebra or a first sacral vertebra, normal on one side, may closely resemble the normal first sacral vertebra or fifth lumbar vertebra on the opposite side or the same development variations may be present on both sides, making it difficult to differentiate between the lumbar and sacral types of vertebrae.

Changes of the articular surface in the lumbo-sacral joint or joints, from the normal vertical to a horizontal axis, cause a chronic inflammation, and thus a thickening of the structures supporting those joints.

Occasionally the coalescence of the laminae is not completed, leaving a cleft in the arches of the vertebrae through which there may be a protrusion of the whole or a part of the spinal cord. This malformation is known as spina bifida, and is considered by many to be the most common of all congenital abnormalities of the vertebral column. A very important form is spina bifida occulta, where the laminae have just failed to meet and the membrane over the opening is strong enough to resist the intraspinal pressure. Frequently this form never gives symptoms, but troublesome claw feet, weakness of the lower extremities, and trophic disturbances developed after a few years and are believed to be directly caused by it.

A fifth lumbar vertebra situated abnormally low, especially when one of its transverse processes impinges on the ilium, a wedge-shaped fifth lumbar vertebra causing an abrupt lateral deviation of the lumbar spine with marked rotation or a congenital absence of the sacrum are sources of irritation to the lumbo-sacral cord.

Ryerson reported a case of recurrent spondylolisthesis with paralysis of the spastic type. He says: "It is quite true that it is not easy to constrict the spinal canal at the level of the fifth lumbar vertebra, but it can be done, and I can think of no other method by which this little girl's paraplegia could have been caused." From this it would seem possible to have a forward and downward displacement of the fifth lumbar vertebra on the sacrum sufficient to give pressure symptoms of the sciatic nerve. In nearly every case of true spondylolisthesis, there is a congenital malformation of the fifth lumbar vertebra, usually a non-fusion of the laminae, which makes it more prone to dislocation than that of a normally formed vertebra.

* Presented to Section on Anatomy at the Fifty-second Annual Session of the California Medical Association, San Francisco, June, 1923.

Structural changes of the lumbar spine due to necrosis of the bones and collapse of the bodies of the vertebrae in Pott's disease are rarely the cause of the nerve symptoms. Pressure on the cord and nerve roots from the inflammatory material, mostly granulation tissue and thickened spinal membranes, slowly produces sensory and motor symptoms along the entire course of the sciatic nerve. An abscess, which usually follows the course of the psoas muscle, not only relieves the pressure symptoms, but removes the broken-down granulation tissue and carious bone from the diseased area.

Tumors of the lumbar spine and pelvic region rarely exist without producing symptoms of the sciatic nerve. When the bone is involved structural changes are marked, and nerve tissue is destroyed very rapidly.

Osteoarthritis involving the lower lumbar vertebrae, the lumbo-sacral articulation, or the sacro-iliac joints, is a very common cause of sciatic nerve symptoms. Although the Roentgen ray usually reveals osteophytes varying in size from the minutest roughening to well-developed spurs, or even bony fusion of two or more vertebrae, it occasionally fails to show any abnormality which can be demonstrated by means of the Roentgen ray. Recent literature has reported the presence of osteophytes on the bodies of lumbar vertebrae at autopsy that did not show in clear roentgenograms of the same region taken shortly before death. It is not only the pressure from the osteophytes, but the inflammation which stimulates their growth that irritates the nerve roots. Very minute structural changes may be responsible for severe nerve symptoms.

Traumatic separation of the symphysis pubis, as from a forceps delivery, gives a corresponding twist at one or both sacro-iliac joints, with pressure symptoms of the sciatic nerve. The inflammation resulting from subluxation of the sacro-iliac synchondrosis frequently irritates the sciatic nerve, although all the symptoms may be confined to the region of that joint.

Fracture of the bodies of the lumbar vertebra usually does not affect the sciatic nerve. Rarely an excess of callous impinges on the nerve roots. When the neural arch has been fractured, motor and sensory disturbances of the lower extremities are quite common.

Because of the close proximity of the lumbo-sacral cord to the transverse process of the fifth lumbar vertebra or to the lateral lumbo-sacro articulation, fracture of either usually produces enough callous to cause marked irritation to the sciatic nerve, and occasionally partial or total paralysis. Again, there may be no effect on the sciatic nerve when there was not only complete destruction of the fifth lumbar vertebra, but the transverse processes of all the lumbar vertebrae on one side were fractured and widely separated from the bodies, and the lumbar vertebrae sharply rotated. One month after the accident this patient was allowed to walk without spinal support. Nerve symptoms developed, which disappeared soon after rest in the recumbent position was resumed. Later a Hibbs' spinal fusion bridged the space between the fourth lumbar vertebra and the sacrum and completely stabilized the lumbo-sacral articulation.

As injury to the sciatic nerve from direct pressure or irritation from inflammation near it may produce paralytic, neuritic, neuralgic, and causaligic syndromes, a thorough clinical and X-ray search for structural changes in the lumbar spine and pelvic region should be a routine in every case of sciatic nerve symptoms.

134 South Norton Avenue.

DISCUSSION

Harold H. Hitchcock, M. D. (1906 Franklin Street, Oakland, Calif.)—The vicious habit of standing, as so many people do, with their pelvis tilted forward, their abdominal and gluteal muscles relaxed, and their lumbar lordosis greatly increased, together with anomalies of the articulations between the last lumbar vertebra and the sacrum, as pointed out by Goldthwait, I believe are great factors in making low backs less stable. It has not been my experience to see failure of union of the posterior laminae in spondylolisthesis. The failure of the laminae of the last lumbar vertebra to unite is a very common anomaly, and I believe it a coincidence when seen in spondylolisthesis. The variations in the articular facets are of more importance as a factor predisposing spondylolisthesis.

As in hip disease, referred pain is often felt in the knee, so I believe that much of the sciatic pain seen in patients with low back trouble is referred pain from either a lumbo-sacral or sacro-iliac lesion, and that the sciatic pain is not often caused by direct pressure on the sciatic or the nerve roots composing it.

Henry H. Lissner, M. D. (Brockman Building, Los Angeles)—It is not my intention to belittle the more recent advances made in the study of the causes of backache and sciatic pain, but it is my purpose to call attention to the usual psychological stimulus attendant upon all of the newer developments, in either medicine or surgery, and to warn against an ultra enthusiasm which leads the medical mind into a blind alley. Of course, not every backache, following trauma or otherwise noted, is due to spondylolisthesis; and not every pain in the region of the sciatic nerve or referred along its anatomical distribution is due to disease or inflammation of the nerve itself.

From the diagnostic standpoint we must consider conditions within the nerve, the effects of toxic absorption, and conditions without the nerve, which may cause pressure upon it to produce symptoms referable to it.

Sciatica per se is too well known to discuss in extenso. One point must be considered, namely, if there is localized atrophy of a group of muscles, it is suggestive that there is something more than a simple sciatica or neuritis at work. One must also be satisfied that there is no disease in the hip-joint, pelvis or spinal column which could give rise to symptoms.

Rectal and vaginal examinations should be made to be sure that no pelvic inflammatory or malignant mass is pressing, or that a retroverted uterus is not causing the trouble. Tuberculosis, gumma or malignant disease of the lumbo-sacral vertebra may produce pains resembling sciatica. A careful study of the urine and blood should be made for sugar, since double sciatica is not at all uncommon in diabetes.

Every man should investigate the action of the sphincters and palpate carefully the pelvis and spine, make rectal and vaginal examinations in all patients whose symptoms conform to a sciatic involvement and should have X-ray studies made, both antero-posterior and lateral views, after all other conditions have been excluded from the diagnostic standpoint.

Finally, don't let the X-ray examination be the

first step toward the diagnosis of conditions involving the lumbar and pelvic regions.

Maynard C. Harding, M. D. (Timken Building, San Diego)—Doctor Chappel has given us a surprising amount of information in a very condensed and understandable form. I wish to comment on only two points. The first is, why should injuries to the lumbo-sacral and sacro-iliac joints give pain in the sciatic distribution? In the first place, the typical radiation of sacro-iliac pain is down the back of the thigh to the popliteal space. This is the skin distribution of the small sciatic nerve, not of the great. It is inconceivable to me that the very slight gross movement which takes place in the ordinary sacro-iliac subluxation can cause actual damage by pressure or stretch. We must look for the origin of the nerve supply for explanation.

The sacro-iliac joint is supplied by twigs from the superior gluteal nerve, which arises from the fourth and fifth lumbar and first sacral nerves. Also by unnamed twigs of the sacral plexus arising at the same level. It receives another innervation from the primary posterior branches of the first and second sacral nerves. The skin covering this area is usually a seat of pain in sacro-iliac conditions, and is also supplied by the same primary posterior branches. The small sciatic arises from the posterior cords of the second and third sacral nerves. I believe it is this close segmental relation of these nerves which accounts for the distribution of pain.

My other point concerns the differential diagnosis between sciatic pain from sacro-iliac injury, and from toxemia, and inflammation.

In sacro-iliac slip the pain comes suddenly, it may go suddenly, or persist as a soreness a day or more after relief of the cause. There is rarely localized tenderness along the nerve, and never severe. There may or may not be a positive Kernig. In toxic pain, the pain comes more gradually. It pains in all postures. It is not relieved suddenly. Tenderness is moderate. There is usually a Kernig. In true inflammation the onset is gradual, and the relief is gradual. There is pain in all postures. Tenderness is marked, and the Kernig is marked and very painful.

Doctor Chappel (closing)—Since a discussion of all the causes for low back pains and sciatica would open up the whole realm of medicine and surgery, and as I fully appreciated that many conditions, aside from structural changes in the lumbar spine and pelvic region, may cause irritation to the sciatic nerve, I purposely limited the contents of this paper to causes which are frequently overlooked when determining the etiology and outlining the treatment for sciatica.

Standardizing Reform—We should say that the trouble with the hygienists is that they are obsessed with the idea of standardizing the people with respect to keeping well.

It is one thing to reform rigorously our spelling and set up correct and fixed orthographic standards, but when it comes to reforming human beings it should be borne in mind that some folk ought to be beguiled into what would be sinful and damaging for others.

But alas! the professional reformer can never be induced to see problems from such an angle.

We are today so much in the hands of narrow propagandists of all kinds that there is absolutely no chance of rational procedure. Therefore, any further material reduction of our mortality rate, much as we should wish to see it, is hardly to be looked forward to with any assurance. If it does come about, it will be because of more or less fortuitous determinants.—Editorial, The Medical Times, November, 1923.

TRAUMATIC SYNOVITIS OF THE KNEE, ACUTE AND CHRONIC*

(A Review of the Literature.)

By RUDOLPH L. DRESEL, M. D., San Francisco

In this paper I have tried to limit myself to the purely traumatic affections of the knee-joint, not those due to disease such as tuberculosis, hemophilia, or infectious arthritis, or those due to strain, such as so-called villous arthritis, which might influence the existing lesion.

Anatomy—The knee-joint is a hinge-joint, with some slight degree of ant-posterior motion as well as some slight rotation. It depends for its strength on its ligaments and on its muscles. It has two articulations, femoral-tibial and femoral-patellar. There is a capsule thickest behind and thin at the lateral aspects of the patella. There is an external and internal lateral ligament and two crucial ligaments. The tendon of the biceps strengthens the outside of the joint and reinforces the external lateral ligament. The ligament is separate from the capsule except behind, and it is separate from the external semi-lunar cartilage by the tendon of the popliteus muscle, and a bursa. The capsule mingles with the periosteum, reaches in front as the quadriceps pouch around as high as the lateral tuberosities, and in back one cm. above the cartilage covering the condyles, attached around the articular surface of the patella and down slightly on the sides of the tibia. On each side there are strong bands running from the condyles to the patella, the vasti and the fascia lata. The heads of the gastrocnemius, and some fibers of the tendon of the semimembranosus help to strengthen the capsule. The internal lateral ligament is very closely attached to the capsule and only artificially separated from it. The vastus internus fibers are inserted low enough on the internal capsule to cause in certain positions of the knee-joint, and under certain conditions of muscular contraction, a distortion of the internal capsule and the semi-lunar cartilage attached to it.

In traumatic affections of the knee-joint it is important to keep in mind the difference between the internal lateral ligament and the external, and the difference between the internal semi-lunar and the external, which maks considerable difference in the susceptibility for injury to the joint.

The external semi-lunar joins at its posterior horn to the posterior crucial ligament. There is no more than one centimeter between the two horns. The coronary ligament connects the cartilage to the tibia, it is not very strong and allows some motion, that on the outer semi-lunar being 2 centimeters in front and 2.5 centimeters in the back, thus allowing fairly free motion. The popliteus muscle separates the cartilage from the external lateral ligament.

The internal semi-lunar is C-shaped and has no definite attachment in front. It is sometimes free and at other times it is attached to the rough sides of the tibia at no particular point. The peripheral border of the internal semi-lunar is attached to the internal lateral ligament, the posterior horn is at-

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tached to the tibial facet of the spine, the coronary ligament is short, not more than 0.5 cm. long (Piersol).

The crucial ligaments are the strongest in the knee, the anterior arises just in front of the spine close to the external semi-lunar, running backward, upward and outward to the back of the inner side of the external condyle. The posterior crucial is the stronger, arises from the back of the groove of the tibia at the posterior aspect and passes forward and upward to the inner side of the internal condyle. This leaves the spine free and covered by synovial membrane.

The posterior ligament of the ligament of Winslow is an especially thickened portion of the capsule which helps only preventing hyperextension of the joint. It is directed upward and outward to the inner border of the external condyle, and is joined by an expansion from the insertion of the semi-membranosus.

The synovial membrane is closely connected with the capsule, separated only by a layer of fat or fat-pads. Of these the most important are: The subpatella, extrasynovial but intracapsular, about the front and top of the tibia. This pad stretches out on either side as the alar ligaments reaching to the semi-lunar cartilages. The ligamentum mucosum, of small importance, runs from the patella to the top of the intracondylar notch. The joint is freely connected with the quadriceps-pouch and less freely with the popliteal-pouch because of the crucials and the fat-pads.

There is a bursa under the patella tendon, which practically never communicates with the joint. Laterally, there is a bursa between the external lateral ligament and the tendon of the popliteus, and another between the ligament and the tendon of the biceps. This bursa generally connects with the joint. In back there is a large bursa beneath the inner head of the gastrocnemius, and this sometimes connects with the joint later in life.

Mechanism—The tibia normally is rotated outward to a slight extent in extension. Further rotation outward is resisted by the internal lateral ligament, probably not the crucials to any extent. Inward rotation is resisted by the external lateral ligament and the anterior crucial. Adduction is limited by the external lateral ligament and the posterior crucial. Abduction is limited in the fully extended position by the internal lateral ligament; in flexion by the internal lateral ligament and the anterior crucial. The anterior crucial is quite tense in extension; the posterior in flexion. In other words, the posterior crucial prevents displacement of the femur on the tibia, when as in alighting from a leap, the whole weight is carried forward, the knee being flexed. The greatest help in the stability of the knee, and over which we have more or less control, is the tone of the quadriceps muscle and its expansions. Thus, there may be injury to the internal lateral ligament, and in further abduction the anterior crucial may be torn. A displacement of the internal semi-lunar cannot be unless the internal lateral ligament is stretched or ruptured. If the internal lateral ligament is torn above the joint the cartilage remains intact on the tibia; if the ligament is torn below the level of the joint, the cartilage will be torn upward and will follow the rotatory motion of the femur. The cartilage becomes displaced, and as the articular surfaces of the joint become separated the cartilage will slip inward and become nipped as the separated bones come together again. It is for this reason that Jones makes the statement that the strength of the knee-joint is proportionate to the strength of the internal lateral ligament. To quote from Edwards of Glasgow, "medial rotation of the tibia on the femur is limited by the tortion of the crucial ligaments, and at its limit by the tensity of the lateral ligament; whereas, external rotation is not opposed by the crucial ligaments, thus supporting the view suggested that the lateral ligaments are the most important group in maintaining stability of the knee.

Pathology—Effusion may occur as a result of a sprain of the internal lateral ligament with or without cartilage displacement. It may be due to damage to the synovial membrane by direct violence with or without ligamentous damage. But the external, lateral ligament is rarely torn, and external cartilage displacement is rare because of its freedom and because of the separation of the ligament by the popliteus muscle.

E. Nichols, in his report on football injuries (1915), had many cases of synovitis of the knee mostly due to twist when legs were caught in a pile. He says, "In many cases it is an index of serious joint injury; in other cases it seems to result from a simple twist. In the cases of simple synovitis, in no cases since 1910 has the knee been fixed in plaster or on a ham-splint. First he uses a long, hot soak and then a compression bandage, this is removed at bedtime, and the knee soaked again and the bandage reapplied. Baking the joint is begun the next day and as soon as the effusion has reached its maximum massage is begun. Most cases of simple effusion without ligamentous damage are able to begin practice on the tenth day. A persistence of the effusion in almost every case is an indication of serious joint trouble.

In cases of semi-lunar cartilage there is invariably a pretty violent acute synovitis. Many, although not all, show an immediate locking of the joint. The subsequent disability varies a great deal, depending apparently upon the position of the torn end of the cartilage. Some players after such an injury may play half a season before there is a recurrence. Other men directly after the injury are troubled with constantly recurring locking of the joint. The semi-lunars were reduced after the Jones method, and fixed by a single strapping over a pad at the internal anterior portion of the joint. This was found better than any apparatus or cross-strapping.

A man with a semi-lunar cartilage displacement was often allowed to play, but he never was a reliable player thereafter. Nichols found ten semi-lunars in 145 knee injuries due to football.

Major Harding, U. S. A., studied seventy cases of acute synovitis of the knee, traumatic, at a camp in the State of Washington. He grouped them as follows: (a) General strain, 40 per cent; (b) In-

ternal lateral ligament, 43 per cent; (c) Internal semi-lunar, 32 per cent; (d) External lateral ligament, 1 case; (e) Periosteal tear, femur, 3 cases; (f) Cracks in the patella, 3 cases.

Internal lateral ligament and semi-lunar cartilage injuries were the most common combinations. Twenty per cent gave a history of previous injury. All cases had effusion and all cases were aspirated. Eighty-seven per cent had bloody fluid, ranging from blood-stained to bloody fluid clotting on exposure. The amount obtained was from 20 to 120 cc., averaging 63 cc. All were cultured and all cultures were negative. All X-rays except three were negative. These three showed cracks in the patella, and three showed what he interpreted as thickened alar ligaments.

In this connection Salmond, in the British Journal of Surgery, 1919, speaks of the occasional unrecognized fractures of the patella border, mostly situated at the outer border of the bone. Generally due to slight trauma, such as a twist from overstepping the curb, very probably due to muscle action. Mostly, the injury was so slight that the patient overlooked it at the time, and came later with the diagnosis of chronic synovitis or arthritis.

In Harding's cases those aspirated had pain averaging one and one-half days; those not aspirated eleven days. He believes the stretching due to the fluid which causes the stretching of the capsule to be a prominent cause of disability and cause of slow recovery. All the cases were baked and when the soreness was gone, massaged, and gotten on their feet and ordered to wear a flannel bandage for about three months. Before they were discharged they were ordered out on walks increasingly long, and if at the end of that time they could walk five miles without recurrence they were discharged.

Mauk (Virginia Medical Journal), in speaking of chronic knee-strain, says that the usual treatment of bandage and bed is the cause of most of the trouble. He believes that in any synovitis the internal lateral ligament is always injured. He uses a tight bandage and a posterior cast for three or four weeks, with a daily massage after three or four days. Later a knee-cage, not a compression bandage.

In a paper in the 1921 Surgery, Gyn. and Ob., Metcalfe, speaking from his army experience at Fort Sam Houston, says he has given up the old approved method of treatment; i. e., rest in bed, compression bandage, heat, and massage.

This method resulted in three to six weeks' treatment with ofttimes recurrence of the effusion as soon as the soldier was returned to duty. Often their complaint was bitter enough that it was necessary to discharge them from the service. Starting in 1916, he aspirated all knee-joints and put the knees up in traction and in extension. During 1916 he aspirated 150 knees and extended them, and with few exceptions the joints became normal and the men ready for work in less than two weeks. It was observed that a knee aspirated immediately showed practically free blood, and in six days bloody serum and in ten days straw-colored serum. In one patient only did he open the knee-joint and express more than twenty loose bodies resembling cartilage and varying in size from a dime to a silver dollar. Examination showed this substance to be fibrin. This patient made a complete recovery after the removal of the particles. Since a knee aspirated immediately showed almost free blood, it was his practice to aspirate after forty-eight hours.

In more than 300 cases treated he withdrew 60 to 100 cc. of bright blood or bloody fluid. Extension was removed after ten days, and the patient was allowed up and allowed to start walking. Return to duty usually occurred after three weeks, and was rarely followed by recurrence. These conclusions are very similar to those obtained by Major Harding. Metcalfe lays great stress on the damage done by the stretching by the fluid and the deposit of fibrin. "Continuous stretching makes for chronic effusion."

Bennett analyzed 750 cases of synovitis of the knee, and found them in the following proportions: Internal derangements, 428; bodies, 24; genu valgum, 4. The rest were due to disease. Bennett agrees that the semi-lunar cartilage, if fractured, is generally torn longitudinally near its attachment to the internal lateral ligament in the middle three-fifths, is left attached at the anterior and posterior one-fifth and the loop thus formed lies in the intercondylar notch. He calls this the bucket-handle type, and claims this to be the most common type of injury.

C. F. Painter, in the U. S. Navy Bulletin, says that the most severe injuries occur in early and in late adolescence. Of these the following are the most common: Internal semi-lunar cartilage; hypertrophied alar ligaments; occasional traumatic bursitis (under biceps tendon). He classes the semi-lunar injuries into two groups—those in which the ligamentous attachments between the tibia and the face of the semi-lunar is torn away and the cartilage becomes mobile enough to permit of catching in the joint, but seldom locking. Second, those, besides having the ligament torn away, the cartilage is fractured. The result is that the free edge of the cartilage flaps in and out of the normal position, and may be detached from its anterior ligamentous attachment for an inch or an inch and one-half. Mostly, the break is at the same place of the junction of the inner and outer third. Continued long enough, this also causes thickening of the synovia and the alar ligaments.

Fractures of the epicondyles may give, clinically, the picture of a ruptured ligament, lateral. There is apt to be sharp synovitis. Good results, except in the formation of joint mice as pointed out by Codman, and these may produce and maintain chronic synovitis.

Diagnosis of hypertrophied alar ligaments is made if after a trauma to the front of the knee there is continuous local swelling on either side of the patella and slightly below it. There is considerable pain or ache in the joint, especially after standing or walking a while.

J. Dubs, in the British Medical Journal, calls attention to the X-ray shadow between the patella and the tibia-femoral joint, found very often in this condition. There is usually marked atrophy of the

quadriceps, with slight grating in the joint on active or passive motion. When the trouble is marked there is often a sensation of pinching in the joint, but the carrying out of the motions is not prevented. In chronic cases there may be an inability to fully extend the joint, but there is no locking or pain. Operative treatment indicated in the chronically irritated ones.

Bicipital bursitis is rare and is purely a traumatic affair. It is due to a strain on the biceps muscle combined with the fact that there is a minute communication between this bursa and the knee-joint. Usually presents as a small tumor beneath the biceps about one-half inch above its insertion into the fibula. Symptoms are pain and tenderness, patients usually limp a good bit. Operative removal indicated as a rule.

FRACTURE OF THE TIBIAL SPINE AND RUPTURE OF THE CRUCIAL LIGAMENTS

Rupture of the Crucial Ligaments—This is a relatively rare condition, always due to an injury of a grave and spectacular nature, caused by a severe direct injury, knee flexed, tibia markedly abducted and rotated inward. The fibers of the internal, lateral ligament are practically always ruptured also. And if the twist is beyond a certain point the spine of the tibia may be fractured either entire or the internal tubercle. The posterior crucial always invariably escapes except in such injuries which are connected with dislocation of the knee. In this connection, one must keep in mind the connection between the internal lateral ligament and the internal semi-lunar cartilage; for instance, should the forces which rupture the cartilage continue to produce further abduction of the knee, the entire strain is borne by the anterior crucial ligament, and later the strain falls on the tibial spine which in its turn may become fractured. Often after operations on the semi-lunar, as Sir Robert Jones has pointed out, the result is not satisfactory probably because there was an injury to the internal lateral ligament and the crucial ligament as well. There has been much discussion and a variety of opinion as to the treatment of this condition. Hey Groves advocates operative intervention in all cases. He has devised a special "tunneling" operation described in the British Surgical Journal 7:505, 1915. But most writers on this subject, especially more recently, do not agree with him. Cotton, Kurlander, Sever, F. Jones, Mayo-Robsen, and Bennet all agree that rupture of the crucial ligament is not so serious as at one time it was credited with being. Very serviceable joints may be expected after injuries of this kind, and the operative methods employed may be counted upon to restabilize the joints with very little surgical risk. It does not seem to them that in the majority of instances the tunneling operations and the transference of muscles or transplants of fascia are necessary. Cotton has operated several cases of this sort in ex-soldiers and has devoted his attention to the repair of the lateral ligaments, especially the internal lateral ligament. Sir Robert Jones, speaking of the Hey-Groves operation, says: "From the mechanical standpoint I think the Hey-Groves operation is incomplete, in that it does not attempt to strengthen the internal lateral ligament. The new fascial ligament has to bear the entire strain in both abduction of the knee and in anterior sliding of the tibia, as well as in the internal rotation of the tibia on the femur. He has modified the operation and reconstructs the internal lateral ligament as well.

All the recent writers agree that a ruptured crucial ligament, when so diagnosed, should be treated by immobilization for a period of at least two months, and this is considered preferable to primary suture. It is best to immobilize in about thirty degrees flexion (thus keeping all torn structures relaxed during healing). Later, they can either be fitted with a knee-cage or, if found necessary, some stabilizing operation can be attempted.

Henderson in the last number of the Archives of Surgery sums up his experience with ruptured crucial ligaments as follows: "In my experience ruptured crucial ligaments have never been the cause of significant chronic mechanical trouble in the knee-joint. Probably the ligament unite and afford stability, or patients are able to get along without them."

In cases of fracture of the tibial spine conservative treatment with the knee in extension or nearly complete extension is indicated; operative treatment is not indicated. Sir Robert Jones recommends that the knee be kept immobilized for at least ten weeks. If later, or in older cases, there is trouble because of excessive callus, this can be removed at operation. Sir Robert Jones cites several such cases in detail.

Posterior crucial ligament tears are exceedingly rare, and the treatment is along the same lines as the anterior crucial tears.

Fractures into the joint give generally fair, sharp synovitis. They are generally caused by direct trauma and involve either the femoral condyles or the internal or external tuberosities of the tibia. If there is much displacement, these patients generally have much arthritic pain afterward; it is, therefore, usually best to cut down upon, and replace the fracture. If there is slight displacement, on the other hand, the results without operation are good, especially if a Thomas splint with a knee flexion bar is used at the end of two or three weeks so as to mobilize the knee. Fractures of the patella and dislocation of the patella, although causing synovitis, does not come under the scope of this paper.

Other causes of purely traumatic synovitis are few in number. They are caused either by trauma or by trauma plus some constitutional disease or from disease alone thought to have been caused by trauma. The most common of these are the loose bodies, i. e., osteochondritis dissecans; hypertrophic arthritis with fracture of hypertrophic spurs and osteochondromatosis. Osteochondritis may or may not be due to trauma; there seems to be considerable divergence of opinion as to that. The articular surfaces of the knee are peculiarly brittle in this affection, and it has been noticed that very frequently the condition is found in both knees. Further, Henderson, Freiburg, and others have called attention to the fact that, in practically all cases the loose body or bodies, seldom more than two or

three, arise from the internal condyle of the femur, always practically in the same place. These facts make it very improbable that the condition is due to trauma. But, of course, the knee-joint is so exposed and so subject to trauma that a history of trauma is almost always given, no matter what the condition.

Fracture of hypertrophic spurs usually give little trouble in diagnosis, and it is only necessary to remember that a hypertrophic joint is very apt to flare up after operative interference, and is also easily infected if opened. So that often, unless there is very definite locking, it is wiser to leave the joint alone and not attempt to remove the loose bodies.

Osteochondromatosis is a condition little understood. There is usually no definite history of trauma. The number of loose bodies are usually quite large, twenty or thirty, or even sixty or seventy. According to Whitelock and Henderson, this condition is probably a developmental aberration due to a misplacement of some of the original cells of the meso-derm, which take on properties later in life not familiar to the normal cells in that situation, but produce cartilage and bone. At any rate, such a knee is subject to frequent recurrent synovitis at the least provocation, and such loose bodies should be removed. It is well to remember that these bodies often lodge posteriorly in the joint, and cannot be reached by the ordinary incision. In approaching the posterior compartment of the joint there are two incisions of choice—the posterior incision devised by Osgood (inner side of vessels above popliteus muscle), and the anterior-posterior incision of Henderson (S G O 33-698, 1921).

Congenital syphilis may give a chronic or recurrent synovitis of the knee-joint, but this is usually symmetrical and in practically all proven cases associated with eye, bone or other pathology. This condition ought not to be a cause of mistaken diagnosis. In the acquired form there is seldom synovitis; if so there may be some synovitis due as far as can be ascertained to syphilitic bone infection at or near the joint, and if these things are not present ought not to affect a traumatic synovitis.

I have carefully read the literature on endocrinology to see if there was any mention of an acute or chronic synovitis of the knee, which might in some way obscure the diagnosis, but can find no mention of any such condition. Bennet of Johns Hopkins and some German writers speak of having observed that occasionally menstrual derangements, if irregular, and especially if delayed at onset, may cause passive effusion into the joint. This is obviously not due to trauma nor ought it to materially affect the course of a traumatic synovitis.

SUMMARY

It is important to bear in mind the intimate relation of the internal semi-lunar cartilage and the internal lateral ligament; also, the relation of both of these structures to the internal crucial ligament.

Furthermore, it is important to remember that the tone of the quadriceps muscle has much to do with the stability of the joint. It is very necessary, as far as it is possible, to keep up the tone of this muscle during treatment.

There seems to be some difference of opinion as to the treatment of acute synovitis. Most writers are dissatisfied with the ordinary methods used, and advise more active treatment such as early aspiration of all cases of severe synovitis, as well as better fixation during the first period while recumbent and more prolonged treatment afterward during convalescence, as well as early and increasing massage and motion without undue strain.

It is very probable, also, that in such cases of knee injury with considerable internal damage accompanied by marked synovitis, the continuation of the synovitis is due to the original severe capsular stretching and not to any latent syphilitic infection or other chronic systemic disease as is so often thought. We are often prone to attribute the cause of these persistent synovitis to a syphilitic infection, even in the presence of a negative Wassermann and the absence of all other signs of syphilis.

It would appear that crucial ligament injuries are not as disabling as has been thought heretofore, and that the damage to the lateral ligaments, especially the internal lateral ligament is the most important thing in this type of injury.

In all cases of fracture into the knee-joint it is important to start early knee motion while the fracture is uniting. This is best done by the use of the Thomas splint with a knee flexion bar.

(177 Post Street.)

DISCUSSION

George Rothganger, 4501 San Pablo Avenue, Oakland—I regard the views of Harding and of Metcalfe on traumataic effusions into the knee-joint as valuable. The practice of early aspiration in such effusions has been his for a number of years. Whatever contributes to the dissemination of this measure, as Dr. Dresel's abstract, aids that much in reducing the number of knee-joints that are permanently injured by the distension of fluid.

The separation of injuries of the semi-lunar cartilage into those with tibial attachments torn and those with fracture of the cartilage is sound for therapeutic reasons. In the latter, removal of the cartilage is the one solution of the injury.

Statements belittling the seriousness of rupture of a crucial ligament are not to be taken too literally. As it is always associated with other injuries because of the extreme violence producing it, and as these injuries when alone may have a satisfactory recovery, the disability must be due to the ruptured crucial ligament.

Ellis Jones, Brockman Building, Los Angeles—Dresel has admirably reviewed the etiology and treatment of traumatic synovitis of the knee-joint. The need of early aspiration of the acute knee-joint cannot be overemphasized; relief of symptoms is usually immediate.

We have not found it necessary to apply fixation apparatus following a simple strain of the internal lateral ligament. A canton flannel bandage or a compression bandage has seemed sufficient, and the heel of the shoe is raised three-eighths of an inch on the inner side to deflect the strain to the uninjured external lateral ligament.

A common sequel to a simple traumatic synovitis is a relaxed and mechanically inefficient quadriceps. Treatment with the Bristow coil will restore the muscle tone more quickly than any other device.

Whereas formerly we were content with massage and relative fixation to produce a capable quadriceps in from four to six weeks after injury, we now find the quadriceps restored within ten days of treatment with the Bristow coil.

The knee-joint is as secretive as the abdomen and it is wise not to be too positive in our diagnosis at a single examination. A badly swollen knee does not permit of the most accurate diagnosis, and our first duty is to relieve the patient, get rid of the effusion by aspiration, and a subsequent examination after aspiration may often give us very reliable information impossible to obtain previously. It is well to remember that, while injuries to the external semi-lunar cartilage are rare, yet when they do occur they may refer the symptoms to the internal aspect of the joint. We have removed two external semi-lunar cartilages, almost entirely detached, in a patient whose subjective symptoms were referred entirely to the inner aspect of the joint.

A common, unrecognized injury is a pinched retropatellar pad. Examination of both knees in a flexed position will show a thickened retropatellar pad and a simple synovitis. Extension exaggerates symptoms and it is often impossible for the patient to voluntarily extend the knee. This inability to extend the knee is often wrongly interpreted as "locking," due to an injury to the meniscus. In the presence of considerable effusion aspiration is indicated and the knee-joint should be fixed in a walking cast in twenty degrees of flexion and with a one-half inch lift in the heel of the shoe. The cast is worn for ten days, at which time the pad is usually found of normal size and the knee-joint symptomless. It is this type of injury which is most common in patients with a mild hypertrophic osteoarthritis, in which the retropatellar pad is always somewhat enlarged and, therefore, subject to injury. Untreated or improperly treated, a simple injury of this type, especially in the presence of a low grade infectious arthritis, leads to synovial hypertrophy, which in turn becomes aggravated by further minor trauma.

A bad twist to the knee may also produce a mild but definite posterior subluxation, hardly apparent to the examining eye. Pain on forced extension referred indefinitely to the hamstrings and instability in walking, a mild effusion without a definite area of tenderness should make us suspicious. Lateral radiographs of both knees confirm the diagnosis. Reduction is best accomplished by forced flexion and counter-attraction under an anesthetic followed by plaster fixation in 30 degrees of flexion.

Beriberi and Rice Neuritis—I think it is proper to conclude that beriberi must be distinguished from rice disease, while a condition which is similar to rice disease may also be found in human beings in Chichiko dyspepsia.

I dare not, however, say that beriberi has nothing to do with a rice diet or with vitamin deficiency in food. It is quite probable that the eating of rice as the main diet may in itself contribute a factor to the occurrence of beriberi, and administering vitamin B may produce good results in preventing or curing beriberi. Therefore, the close connection between beriberi and rice-eating or vitamin deficiency is beyond doubt, and it is evident that rice disease is in itself an avitaminosis; but I wish to emphasize that I cannot agree with the opinion that human beriberi is altogether one and the same with rice disease, as observed in experimental animals.

The real cause of beriberi can probably be explained by admitting one or more factors to the etiologic agents of rice disease in animals. And the determination of this factor will be the most important subject of further investigations in the problems of beriberi.—Mataro Nagayo, M. D., Journal A. M. A., October 27, 1923.

REPORT OF A CASE OF TORULA INFECTION *

By MONA E. BETTIN, M. D., Los Angeles

The torula is a wild yeast and differs from the saccharomyces or tame yeast, in that it neither forms spores nor ferments sugars. It does not produce mycelium either in cultures or tissues. It seems to have a predilection for the central nervous system and does not cause a generalized infection. It destroys tissue by its growth and does not cause a marked inflammatory reaction as is caused by the blastomyces and coccidioides. The coccidioides immitis is much larger than the torula, reproduces by sporulation and on culture shows mycelium, usually affecting joints first and then becoming generalized, with abscess formation in all lesions, usually resulting fatally. The blastomyces reproduces by budding, but on culture also shows mycelium. This organism causes a generalized infection or may affect the skin alone, but there is usually typical tubercle formation, and patients may recover.

The first cases of torula infection in human beings were reported by Stoddard and Cutler of the Rockefeller Institute in 1916. They had two cases, and found four others in the literature. Since then Pierson of San Francisco reported one in 1917, and Evans of Loma Linda reported two in 1922. The patient whose case is now being reported was ill over a period of several months with symptoms resembling those of encephalitis. The spinal fluid, however, showed numerous yeast-like organisms which proved to belong to the torula group. A chronic meningitis was found at autopsy with lesions in the optic thalami and an abscess at the base of the right lung.

The case report of George G. Hunter follows:

This woman was a nurse, about 40 years of age, single, with a history of previous general good health except for gall-bladder infection with operation about one and one-half years previously. The family history is excellent. Father died at 90; the mother at 70 of pernicious anemia. The patient was the fifth of eight children, one having died of tuberculosis at 50, one after an appendix operation; the others are in good health.

The patient was first seen December 18, 1922, and at that time was complaining of excruciating generalized headaches which had been constant and increasing in intensity for a month or six weeks. Of late there has been some nausea and vomiting, but no other subjective neurological symptoms. During the summer of 1922 she went from Los Angeles to her home in Canada, where for several months she experienced periodic recurring severe headaches, something new for her, and also during that time had for a while a discharging ear. Her family noticed during this period that she was very nervous, whereas she had previously been a very placid woman. In October, 1922, she returned to California in fairly good health, the headaches having abated, but shortly thereafter they recurred and were continuous. During the latter part of November and early December she had been under the observation of a careful physician, who had found in her blood, urine, cardio-vascular-renal system, and in the examination of her sinuses nothing to account for her headaches. There had been no temperature during this time and no increase in her

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Brain.

leucocytes. Up until a few days prior to my visit of December 18 she had been caring for herself, was up and about, and did not look upon her condition as a serious one.

Examination at this time revealed a very stiff neck, painful upon rotation or attempted flexion. There was a moderately developed Kernig sign. The deep and superficial reflexes were slightly increased; pupils were midwide, active to light and distance; skin slightly hypersensitive, and the extremity muscles were tender to firm pressure. There was no clonus and no Babinski and no history of sphincter disturbances or cranial nerve involvement. There was a temperature of 99.4, pulse of 88, this being the first record of a temperature above normal. Her mental condition was entirely normal except that she seemed a little drowsy and dull. An examination of the fundi was negative except for perhaps an unusual fullness in the veins.

On December 19 a lumbar puncture was made which revealed a clear fluid under considerable pressure. There were no acid-fast organisms; the Wassermann test was negative.

Upon the findings to date we were of the opinion that the case was either an encephalitis or a tuberculous meningitis, with the former diagnosis the most probable.

The patient was removed to a sanitarium, where for a few days her condition grew distinctly worse. The headaches became more intense, there was considerable nausea and vomiting, and the temperature ranged between 98 and 102. There was very extreme sensitiveness of the skin and in the body generally to movement. About the 25th there appeared to be a remission, temperature returned to normal, she became more comfortable and mentally clear, and it seemed as though convalescence was beginning. This condition continued for a few days, but soon a relapse with recurrence of all her previous troubles occurred, with a good deal of mental confusion and clouding, and at times a very active delirium. At this time she could be roused out of her mental condition and her intelligent attention held for quite a period of time. Her temperature was very irregular, often being higher in the morning than in the afternoon, but never exceeding 101 during this time.

On January 10 she complained of a cloud obstructing her vision, and a moderate neuro-retinitis was observed. The visual difficulty fluctuated for a few days, but very soon she became entirely unable to distinguish light, without, however, any marked change in the fundus of either eye. After the 10th of January her mental condition was such that very little co-operation was obtainable. Lumbar puncture was attempted on two occasions, but due to the intense spasm of the lumbar muscles and the hyperextension of the spine, both were unsuccessful. A general condition of extreme sensitiveness persisted until about a week before her death, which occurred on January 24. At this time her stupor had developed to the degree where complete relaxation with loss of reflexes made it possible to do a successful lumbar puncture, and it was at this time that the true nature of her infection was revealed. Her physical examination so far as the heart and lungs were concerned had been entirely negative throughout until late in the disease, when there appeared dulness with many crepitant rales at both bases posteriorly, which we assumed to be a secondary hypostasis. She had complained of an unusual amount of pain in her lower left chest about the middle of January just before continuous mental stupor developed. There had at no time been any evidence of distinct localization in her neurological symptoms, but rather one of a generalized irritative nature. The fluid drawn just before her death was distinctly opaque, rather whitish in color, with evidence of marked suspension of some foreign substance which proved on examination to be yeast. Fortunately a complete autopsy was obtained.

Although the findings were quite in accord with those found in other cases of yeast infection, the true diagnosis might easily have escaped notice except for the discovery of the torula in the spinal fluid late in the course of her illness.

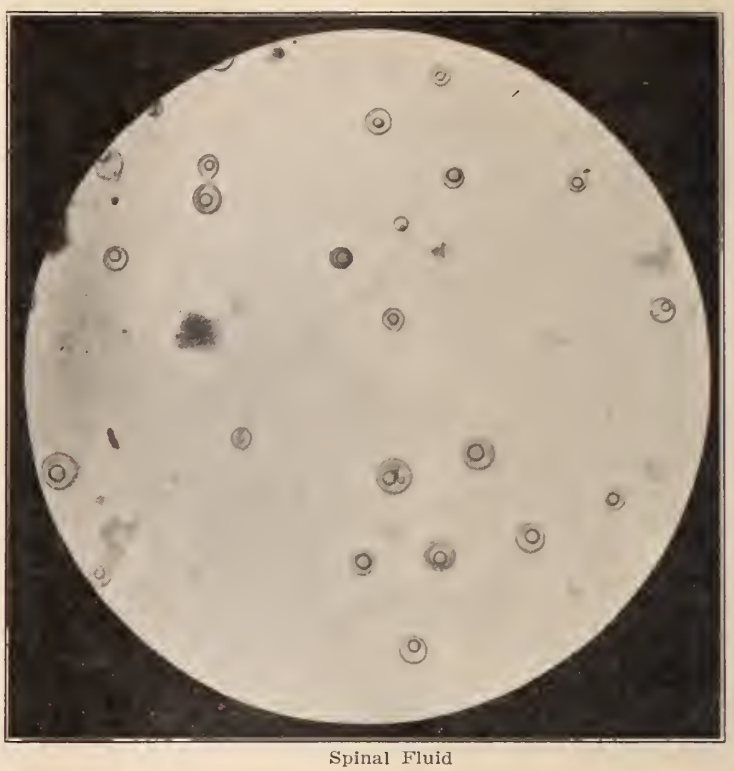
LABORATORY FINDINGS

Examination of the spinal fluid obtained from lumbar puncture December 19 showed 146 cells per cmm.—practically all small mononuclears; globulin test positive; Wassermann test negative, with 1 cc. fluid. No organisms were found in smears, and cultures were negative. The blood count was practically normal. Urinalysis was negative. The second specimen of spinal fluid was obtained January 17, about a week before the patient died. This fluid was cloudy, with a whitish granular precipitate. There was no web formation and no tendency to any agglutination of the particles. Examination showed 64 cells per cmm., with 960 torulae per cmm.; globulin test positive. Cultures on glucose agar showed heavy whitish growth at end of 48 hours; this turned a distinct yellow as it became older. There was no mycelial growth such as occurs in cultures of coccidioides and blastomyces. Intraperitoneal inoculation of guinea pigs was made with this fluid, and the torulae were recovered from fine pin-point blisters on the peritoneal surface. No lesions were found in their brains.

AUTOPSY FINDINGS

Embalmed body of fairly well-nourished woman. Skin surface negative; subcutaneous and retroperitoneal fat abundant—this seemed remarkable in such a prolonged illness. The peritoneal cavity showed no excess of fluid; the peritoneum was smooth. The liver, spleen, pancreas, suprarenals,

and gastro-intestinal tract were negative; kidneys showed cloudy swelling. There was a small nodule on the anterior wall of the uterus, which on microscopic examination proved to be a fibromyoma. Otherwise, the uterus was negative. Tubes and ovaries negative. Pericardium negative. Heart negative, with exception of mitral value, which showed slight thickening along edge of leaflets. Microscopic examination showed this to be made up of a deposit of leucocytes and fibrin. No torulae were found in these sections. Left pleural cavity negative; right obliterated at base. The lower lobes of both lungs showed hypostatic pneumonia. There were dense adhesions between the base of the right lung and the diaphragm. The lung was inadvertently ruptured in trying to get it out, and showed a cavity about 7½ cm. in diameter. This was filled with a gelatinous-like sticky substance. There was no marked zone of inflammatory reaction around this lesion. No other nodules were found in the lungs.



Spinal Fluid

Culture.

The brain was of normal size. The dura was markedly adherent. All convolutions were flattened and the pia was markedly thickened, especially in the sulci. When the meninges were pulled off the brain, numerous shallow pits of pin-head size and smaller were noticed over the surface of the convolutions. The lateral ventricles were not dilated. The ependyma and choroid plexus appeared negative. The ventricular fluid was cloudy and on microscopic examination showed numerous yeast-like organisms. Serial sections of the brain were made in the frontal plane after it had been thoroughly hardened, and showed nothing until the region of the optic thalamus was reached. Here the grey matter of the thalami seemed to be replaced by gelatinous masses made up of spaces connected by delicate threads, giving a honeycombed appearance. There was no inflammatory reaction and no caseation. The fourth ventricle was almost filled by an exudate which seemed to extend into the brain substance. This was especially marked over the roof in the region of the corpora quadrigemina, where there was dense fibrous tissue with calcareous deposits.

Microscopic examination of sections made from the lung lesions showed the alveoli near edge of cavity filled with yeast organisms, some of which showed budding. These organisms were about the size of red blood cells, some of them larger; many of them had a brownish precipitate in the center arranged in a stellate form. Some showed an outer zone, separating them from other organisms. Here and there in the interstitial tissue were collections of round cells. No giant cells were seen. No distinct tubercles were found and there were no areas of caseation. Sections of the lung away from the cavity showed alveoli filled with leucocytes and red blood cells, but no organisms were found there.

Microscopic examination of sections from the meninges showed numerous yeast organisms lying

in vacuoles between the endothelial cells, which were spread far apart. In between were scattered a good many round cells. Some of the blood vessels showed a marked perivascular infiltration of round cells.

Microscopic examination of sections of the brain in the region of the optic thalamus showed the tissue replaced by numerous collections of these same highly refractive spherical organisms. Most of them were surrounded by an outer zone which separated them from each other, but there were very fine threads running between, apparently holding them together. The organisms seemed to have replaced the brain tissue, with no inflammatory reaction whatever. There were a few round cells scattered here and there, but no giant cells were found. Sections in the region of the corpora quadrigemina and cerebellum showed areas containing calcareous deposits, and occasional giant cells with marked increase in fibrous tissue. It was difficult to find any organisms in these sections. Evidently these were healed lesions. The accompanying photographs show the organisms as they appear in the brain tissue, in the spinal fluid, and in the cultures.

ANATOMICAL DIAGNOSIS

Chronic meningo-encephalitis with foci of infection in optic thalami and corpora quadrigemina. Hypostatic pneumonia of lower lobes of both lungs with pleuritic adhesions at right base, and cavity formation in right lower lobe caused by torula. Acute mitral endocarditis; cloudy swelling of kidneys; small fibromyoma of uterus.

The initial lesion in this case was probably in the lung, and the disease was evidently of long duration, as evidenced by the efforts at healing found in the region of the roof of the fourth ventricle. We want to call your attention again to the fact that the diagnosis of such infections may be very easily overlooked and that this disease may be much more common than is generally supposed.

516 Auditorium Building.

DISCUSSION

Philip H. Pierson, M. D. (516 Sutter Street, San Francisco)—I have read with considerable interest the excellent manner in which Bettin has presented this case of torula infection. I would like to emphasize the following points: It is of a great deal of importance to report in as much detail as possible even a single case of this type, for by their accumulation we get very valuable data. The finding of so many torula organisms in the spinal fluid is not common and was probably due to the breaking down of one of these small areas. In any case of questionable meningeal involvement it is advisable to make cultures on glucose agar, as in this case, for when the organisms are present their growth is best watched on such media. I am interested in the fact that old calcified lesions in a healed state were found, for this is further evidence, as I suggested in my report of a case, that the disease may be much more frequent than expected and escape notice. While the pathology of this infection does not bear any direct similarity to that of Virchow's disease, may there not be a stimulation from these calcified meningeal lesions for the overgrowth of the bony structure in Virchow's disease? Perhaps Bettin will answer this in her closing discussion. In one of Cutler and Stoddard's cases which I had the opportunity to see, the portal of entry was the ear in all probability. The same is possibly true in this case, although it may have been directly through the respiratory system. Another point of considerable interest is the difficulty in distinguishing this infection from tuberculosis before death. The meningeal and pulmonary findings could clinically have very well passed for a tuberculous infection. Finally, I want to compliment Bettin on her very thorough presentation of this interesting case.

Newton Evans, M. D. (Loma Linda)—In reading Bettin's paper some points of interest have presented themselves. It is very fortunate in the development of our knowledge of this interesting but little known disease, that in this case it was possible to secure so complete a clinical history of the progress of the disease and a satisfactory autopsy.

All of Bettin's findings are in remarkable conformity to the clinical and pathological findings in the few cases previously reported. One is much impressed by the apparent parallelism, between the clinical history and pathological findings, and by the possible explanation which is afforded for the period of amelioration of symptoms, by the partial healing of the lesion in the region of the fourth ventricle, and later for the recrudescence of the symptom, by the development of the lesions of the optic thalamus.

One cannot escape the impression that possibly if more careful microscopic observation of the fresh spinal fluid had been made at the time of the first spinal puncture reported, the organisms might have been detected at that time, even though the efforts at culture were without results. Experience has shown that a cursory microscopic observation may easily mistake the organisms for lymphocytes.

I am gratified to see this report of an additional type case, which emphasizes the conclusion that we have in the torula infection a clinical entity which is of the nature of meningeal-encephalitis and is of great interest and importance.

Gentian Violet in Staphylococcus Septicemia—Churchman found that gentian violet in 1:1,000,000 dilution will inhibit the growth of staphylococci. A dilution of 1:50,000 has no deleterious effect on white blood cells that have been exposed to it for two hours. A 1:20,000 dilution has no effect on growing tissues. David T. Smith and Horton Casparis, Baltimore (Journal A. M. A., December 29, 1923), have given 10 mg. per kilogram of body weight intravenously to rabbits (calculated dilution in the body fluids of 1:70,000), with no effect except instant staining of the mucous membranes and sclerae. The staining later disappeared. They, therefore, felt justified in injecting gentian violet intravenously into an infant, age 15 months, suffering from staphylococcus septicemia. Staphylococcus aureus had been demonstrated in two blood cultures made during the three days preceding the first injection. There were about ten colonies per cubic centimeter of blood. Three injections of a 0.25 per cent aqueous solution of gentian violet were given at 24-hour intervals. The first dose was 5 mg. per kilogram of body weight. The calculated resulting concentration of the dye in the body fluid was 1:140,000, assuming the fluid content of the body to be 70 per cent of the body weight. The white blood cell count, which was 22,000 at the time of injection, was reduced to 10,000 12 hours later, but returned almost to the original count during the next 12 hours. Because of the possibility that the reduction in the white blood cell count was due to the effect of the dye in that concentration, the amount was reduced, and the second and third doses consisted of 4 mg. per kilogram of body weight. Blood cultures made immediately preceding the second and third injection were sterile. After the third injection the patient's appearance had improved, his fever was reduced, and the white blood count had decreased.

CANCER OF THE ESOPHAGUS IN GENERAL PRACTICE

By GORDON F. HELSLEY, M. D., San Francisco

There is a general conception that carcinoma of the esophagus is a rather rare condition. That this is not exactly true is shown by practically all extensive autopsy series, five of which give 413 cases in 39, 312 post-mortems or one case in 95 deaths. The actual frequency is doubtless somewhat less than this, but certainly esophageal cancer is by no means an unusual disease.

Since at least nine-tenths of the cases are in men, we should expect it to rank fairly high among the tumors of the male sex. It is quite beyond one's expectation, however, to find from an overwhelming list of statistics that in men cancer of the esophagus is exceeded in frequency only by cancer of the stomach.

This being the case it is eminently desirable that every physician be able to recognize a case of this disease. Usually the diagnosis is easy. An adult over 40 years, usually a man, complains of difficulty in swallowing of comparatively short duration. The trouble possibly began quite acutely when he was swallowing a poorly masticated piece of bread or meat. Semi-solids or liquids could be taken as usual, however. Later, even with thorough mastication, solids could no longer be swallowed. Finally, liquids go down with difficulty.

There are several important variations from this history. The complaint may be of vomiting, sometimes quite a while after eating. This regurgitation can be easily distinguished from true vomiting, but often the distinction is not made until after a course of treatment for stomach trouble. The difficulty in swallowing is not always progressive. It may have been but a passing incident, casually mentioned by the patient, or it may have been very severe for several weeks or months, and then disappeared. Although such intermittence is not common, it must be borne in mind. The typical cases are self-diagnostic; it is the diagnosis of the atypical ones which deserves attention.

There are quite a few cases in which there is *no* history of dysphagia. It is not at all unusual for a well-developed cancer of the esophagus to be found at autopsy entirely unexpectedly. Personally, I feel that this is usually due to lack of care in the anamensis, but it goes to show how little evidence there may be from a stenosing tumor.

There are other symptoms of variable importance. Hoarseness may be of definite diagnostic value. The regurgitation of food and saliva mixed with blood and sometimes purulent material is a very ominous, almost pathognomonic symptom. Pain in the chest or epigastrium may be complained of, and rapid loss of weight is commonly mentioned.

Examination notes a gaunt, hungry-looking man without cachexia. Some claim that the appearance is so characteristic that they can make a diagnosis at first sight. The salivary glands often show visible and palpable hypertrophy compensatory to the excessive mastication. The breath is foul, and food remnants may be present in the pharynx. Auscultation over, the cardia shows delay in the esophageal emptying sound. Examination with the laryngeal mirror sometimes reveals paralysis of one or even both vocal chords. Metastasis formation may be found in the cervical lymph glands.

Before a definite diagnosis can be registered, some other conditions must be differentiated. A benign stricture from a corrosive is to be considered, but the history usually decides that. However, I have seen several cases of stricture following corrosion in which no history was obtainable of the patient's having swallowed any corrosive substance. Sometimes this is due to reluctance to acknowledge a suicidal attempt. If the patient is of unsound mind a history is commonly unobtainable. In addition there are cases of corrosive stricture in intelligent patients where there is no knowledge of ever having swallowed anything injurious.

Stricture of the esophagus may be caused by tuberculosis or more frequently by syphilis. Both these relatively rare etiological factors can be partly substantiated or ruled out by a complete history and thorough examination with the appropriate tests, but the only way one can be certain is by microscopic examination of an excised specimen.

Pressure from some extrinsic source, aortic aneurism or mediastinal tumor must be considered and judged by a careful examination. Also a goiter may cause dysphagia, but it must be remembered that the presence of a goiter does not rule out an esophageal cancer. I know of a case in which strumectomy was done to relieve difficulty in swallowing. The operation brought no relief, and a short time later autopsy revealed a cancer of the esophagus.

Cardiospasm, hysterical dysphagia, and esophageal diverticula all have a characteristic history, but are often very hard to differentiate from a neoplasm.

In all these cases of dysphagia it must be strictly borne in mind that carcinoma is the most frequent disease of the esophagus. So Chauffard reports that of 1700 esophageal cases, 1020 were cancers. If the patient is over 40, more particularly if a man, and has symptoms or signs in the least suggestive of cancer of the esophagus, this should be considered the presumptive diagnosis, to be ruled out only with the greatest caution.

It is worth while in every case of chronic disease to ascertain whether or not the esophagus has always properly functionated. The knowledge of a pre-existing, though transitory, attack of dysphagia may give the correct explanation for a putrid bronchitis due to an esophago-bronchial fistula, a diabetes due to pancreatic metastases, or ascites and jaundice due to secondary growths at the liver hilus.

Far more important than accurate diagnosis, from the patient's viewpoint, is the possibility of curative treatment, and this depends on early diagnosis. To this end the same attention must be directed to the esophagus of every patient as is given to the other organs of the body.

If anything indicates esophageal disease one's full diagnostic powers should be brought into play. But whatever opinion one has, it should at once be put to the test of an X-ray examination, both screen

and film, and this before use is made either of a sound or of an esophagoscope. The former has no place in the diagnosis of cancer of the esophagus; the latter should always be preceded by X-ray examination. For all practical purposes the Roentgenological evidence is conclusive. If desired, an esophagoscopic examination can be made for confirmation, and to finally clinch the diagnosis a bit of the tumor can be excised for microscopic examination. This latter procedure is, however, somewhat dangerous in itself and is probably conducive to metastasis formation, so if done at all it should be only as the first stage to a radical operation.

Let us suppose now that the case has been referred back by the Roentgenologist with the diagnosis of probable carcinoma of the esophagus. The patient looks to his physician for treatment.

The proper treatment of any disease is curative, if possible. In a cancer that means removal or destruction of the growth. An authoritative medical system of recent date says: "As carcinoma of the esophagus is a fatal disease surgical intervention with the idea of cure is contra-indicated." The same nihilistic attitude is commonly present throughout the profession, and it makes frequent appearance in the literature. The facts of the matter give considerable justification for such a standpoint. Sauerbruch, with the skill and experience that marks him as pre-eminent in thoracic surgery, has operated 200 cases of cancer of the esophagus without curing a single one. (Personal communication.)

But there is another side to this. There are on record many cases of successful resection of carcinomas of the cervical portion of the esophagus. There have been at least five successful operations on the thoracic portion, but only the case of Torek has stood the test of time and can be considered as a cure. Still, it has been clearly shown that the operation is technically possible.

The chances of finding a tumor which is not too large for resection and which has not metastasized are, or at least should be, better here than in most internal cancers, for it presumably gives its symptoms early and to a remarkable degree is a benignant neoplasm. It has been described as the most benign cancer. At the time when the first symptoms are well established, at the time when the diagnosis should be made, a very large proportion are operable—surely, over half.

Of course, if there is definite evidence of metastasis formation or extensive infiltration, radical operation is not to be considered. The X-ray may show the growth to be so extensive that resection is clearly impossible. If the growth is situated immediately above the aortic arch, it is inaccessible to present surgical technique. The age and physical condition of many patients absolutely forbid a formidable operation.

If none of these contra-indications are present, these cases should be considered proper subjects for operation, providing the work can be done by a surgeon skilled in the necessary technique. The true facts of the case should be explained to the patient and his family; the rapidly fatal course of the disease, the impossibility of cure by any method other than surgery, and finally the faint hope offered by radical operation. There will be found many patients who desire to take this chance.

Then the case should, without delay, be put in the hands of a surgeon. It is important that gastrostomy should *not* be done before the case is referred to the surgeon who will attempt the radical operation, since such a procedure may seriously interfere with his operative plan. With what the surgeon may do and should do we are not here concerned. That interesting chapter is too long to even touch on.

Since the results from operative treatment have been quite discouraging, physicians have grasped at everything else that offered hope for either cure or palliation. Most important of these is radium. There have been many reports of favorable results, particularly from the French, and one case of apparent cure. The general unsatisfactory results and the difficulty of rational application, however, indicate that radium is as little suited to treatment of cancer of the esophagus as it is for other cancers of the alimentary canal. When the final judgment of Forbes, who has had extensive experience with radium treatment, is that, on the whole, the results were nil and that death was hastened, so that he has abandoned its use in these cases, we may well feel that, as a substitute for surgery on operable cases, radium is decidedly unsuitable.

With respect to purely palliative treatment, we have radium and deep X-ray therapy, which seem to be very useful in some cases, useless or injurious in others. Dilatation may be carried on by means of fusiform bougies preferably introduced over a guide-wire, or by laminaria pencils. Other methods of treatment are the installation of inlying canulae, cauterization, and treatment with astringent medication. Except for radiotherapy, these procedures are so unsatisfactory and also dangerous that they do not merit serious consideration. All these local methods of treatment have the disadvantage of accelerating local infiltration and the formation of metastases. Something can be done in the choice of smooth, non-irritating food. It must be borne in mind that the dysphagia is caused in many cases by a spastic contracture more than by tumor obstruction.

When swallowing finally becomes too difficult, we still have left gastrostomy to prevent death by starvation. It is noteworthy how often this procedure fails to prolong life. Forty-two cases which I reported lived an average of twenty-eight days after gastrostomy. This is quite in accord with general statistics on the subject, and would indicate that this is practically a useless operation for these cases. The truth is, however, that, if the gastrostomy were done a few weeks earlier, while the metabolic balance was better maintained and before the patient was thoroughly dehydrated, the statistics would be greatly improved.

It is often necessary to make a prognosis in these cases, and that is very difficult. Every cancer is a law unto itself, and there are most remarkable variations in malignancy. The average duration of life after the first symptoms of carcinoma of the esophagus is reckoned to be about six months. The

careful use of radium and X-ray and a fairly early gastrostomy will probably lengthen this period somewhat. The prognosis must always be guarded. I know of a patient with undoubted cancer of the esophagus for whom nothing whatever was done, but yet eighteen months after his discharge from the hospital he was in apparent good health, with only slight dysphagia. Such cases also force us to accept with reservation reports of apparent cures, by radium for example.

SUMMARY

Cancer of the esophagus is an important disease of the adult male. Careful anamensis regarding dysphagia is important in all cases of chronic disease. If suspicion of esophageal carcinoma arises, the sound should not be used, but the case sent for X-ray. With Roentgen diagnosis of cancer, the question of operability should be considered; if there are no contra-indications and the patient so desires, the case should be put in the hands of a competent surgeon. The lapse of time for all this to be carried through should number days, not weeks or months. If the case is inoperable or declines operation, treatment by radium and X-ray, with eventual gastrostomy, comes into view. The average expectancy of life after the first symptoms is six months.

The success of curative surgery for cancer of the esophagus depends on the co-operation of the medical practitioners, who first see these cases, with the surgeons. As Sauerbruch has said, the delay in having the surgeon see the case is not usually the result of a late diagnosis, but is due to the ruling opinion that the condition is absolutely inoperable. The greatest danger from sounds, radium, etc., is not the direct injury they may cause the patient, but is that patients who should be sent for operation, who would be glad to have operation, are treated by these temporizing methods until the golden hour of operability has passed.

291 Geary street.

DISCUSSION

Edwin I. Bartlett (291 Geary Street, San Francisco)—Carcinoma of the esophagus is indeed a gloomy subject. It would seem that nature has failed to provide any way of escape for the victim. The symptoms appear only in the late stages of the disease: the carcinomatous cells have a tendency to invade longitudinally ofttimes for several inches so that removal of the growth with a fair margin may mean extensive resection: the technical difficulties in the removal of the thoracic lesion, no matter how small, are insurmountable: the disease generally appears in a man who is the only bread-winner of the family, and he has only a few months to live after the disease is discovered.

Discussions of such a subject can have little practical value. There is a phase of this subject, however, as pointed out by Helsley, which is of practical importance, viz., the type of treatment for palliative effect. This should consist of the simplest procedure for supplying food and fluid to the stomach, and in the majority of instances, simple gastrostomy gives the best results. Any attempts at treatment of the local lesion either augment the disagreeable or distressing symptoms or result in death. Radium, which promises so much in the treatment of malignant disease, has failed to destroy the local lesion, has made the patient more miserable, and has brought death more quickly. Radical surgery has no cures to its credit, and nearly every case so treated has died from the operation.

Improper treatment through mistaken diagnosis is such a common error that its mention in this paper bears emphasizing. The danger is not from the fatal delay or from stimulation to growth of the neoplasm. It involves a waste of money and effort, and possibly may result in unnecessary surgery and greater suffering. Carcinoma of the esophagus must always be borne in mind in the presence of symptoms referable to the mediastinum or stomach, and in all instances of disturbance of deglutition and phonation. Any occasion which requires an examination of the larynx or bismuth studies of the gastro-intestinal tract demands careful consideration and close observation relative to esophageal neoplasm.

Dr. Helsley (closing)—It is gratifying to have Bartlett confirm and emphasize some of the most important points of my paper. Particularly, his recognition of the fact that carcinoma of the esophagus is not always self-diagnostic and the reasons he gives why accurate diagnosis is important are worthy of thought.

We occupy irreconcilably opposed positions as to the applicability of radical surgery to this condition. I have seen the case which Torek cured and I know that there could be no more unfavorable location for the tumor than this one, which was successfully removed. Therefore, I feel that the outlook is not without hope and that progress can be made only as medical practitioners displace from their minds the nihilistic attitude which has so long ruled this field.

THE RELATION OF GROWTH TO RICKETS *

By SIDNEY BOWERS, M. D., Los Angeles
(From the Department of Pediatrics, University of Minnesota Medical School.)

Many observers have noted the influence of growth upon the development of rickets. Czerny and Keller state that overfeeding must be avoided as prophylaxis against rickets, even with breast-fed infants. They have not observed florid rickets in underfed infants. Esser believes rickets is due to overfeeding. Mellanby observed that some elements of diet increase growth and allow calcification processes to lag behind. The greater the growth the more necessary it is to have in the diet and absorbed substances which aid in calcifying bone, namely, calcium, phosphorus and anti-rachitic vitamine. When these latter substances are relatively deficient or defective in their action, rickets results. Hess found that those infants were most likely to develop rickets who, in a poorly nourished condition, subsequently thrived and gained in weight. McClendon observed that, during loss of weight, a small amount of phosphorus prevented rickets in rats, while during normal growth a much larger amount was necessary. "Every growth-promoting substance has a rachitic influence when it promotes growth; therefore, every anti-rachitic substance that promotes growth may have two opposing actions." In rats, remaining at stationary

* Read before the Southwestern Pediatric Society, September 5, 1923.

weight over a long period, the phosphorus requirement for building up new tissue is greatly reduced. Under such conditions, the small addition of phosphorus to a standard rickets-producing diet suffices to enable the bone to recalcify, and a spontaneous cure of rickets results.

It was noticed in rats that when strontium replaced calcium in an otherwise satisfactory diet, it stimulated growth and caused the bones to develop the picture of "strontium" rickets. Jundell has treated cases of rickets with relative inanition, and claims excellent results. From the observations and experimental work of numerous investigators discussed above, it would seem as if there was a definite relationship between certain factors of growth and the development of rickets. In an attempt to determine this, the following study was conducted:

PROBLEM

Infants between the ages of six months and eighteen months inclusive were examined. There was no selection of cases except as regards age. The examinations were carried on during the months of August to December, inclusive, 1922. In all 223 cases were examined.

The examination data consisted of the following:

Age, sex, birth weight, present weight, body length, feeding history, when first sat up, when first walked, dentition, presence or absence of craniotabes, size of the fontanel, measurement of any zone of softening in the region of the fontanel, head and chest circumference; the presence or absence of a square type head, of rosary, of Harrison's groove, of chest deformities, of protuberant abdomen, of palpable spleen, or of enlarged epiphyses; the condition of the musculature and the diagnosis. In some cases roentgenograms of the epiphyses of the wrists and ankles were obtained.

The birth weight was gotten from the parents who, in most cases, seemed to have fairly accurate information regarding this. Feeding data was procured from the parents and from the clinic record. Past weight records, as well as the present weight of the infants, was obtained from the clinic records, having been determined by nurses trained in this work. The length was accurately measured with a board especially constructed for measuring the length of infants. Measurements of the fontanel were taken from a traced outline of it, according to Elsässer's method. This consists of measuring the two diameters from the four points midway between the angles, these being added and divided by two. The chest circumference was taken at the nipple-line. The condition of the musculature was graded good, fair, and poor. The positive signs were graded one, two, and three plus, as was also the diagnosis of rickets. This was carefully considered in every case. At this time it would be well to mention a few important points in consideration of the diagnosis of rickets.

Hess and Unger place beading of the ribs as the most reliable of the immediate clinical signs in the diagnosis of rickets, with the disadvantage that it does not differentiate between the active and inactive phases of the disorder. A negative roentgenogram does not rule out early rickets. The inorganic phosphate of the blood is generally diminished in the early stages of rickets, but this is not pathognomonic. Schwarz concluded, from a study of craniotabes in infants, that at least during the first six months, rickets could not be diagnosed on the basis of this sign. Park has reported the types of costo-chondral junction, which may occur in rickets. Numerous investigators, among whom are Baetjer, Jacobson, Albert-Weil, and Giles have contributed data on the Roentgen-ray diagnosis of rickets.

In the present study, roentgenograms were taken of the epiphyses of the wrists and ankles in 94 cases. Of these cases, 32 were rachitic, although the roentgenogram was only definitely positive in 17 of these. Of the 223 infants examined, there were 69 cases of rickets, or 30.94 per cent. There were 103 female infants with 32 cases of rickets, or 31.6 per cent, and 120 males, with 37 cases of rickets, or 30.83 per cent. A classification of the cases according to age in months and sex, with the number of cases of rickets in each, is shown in Table I.

TABLE I

Age in Months	Males		Females		Total	
	No. of Cases	Cases of Rickets	No. of Cases	Cases of Rickets	No. of Cases	Cases of Rickets
6	21	9	14	5	35	14
7	29	6	11	1	40	7
8	10	4	14	4	24	8
9	11	5	11	2	22	7
10	8	2	10	1	18	3
11	5	0	5	2	10	2
12	4	0	8	3	12	3
13	9	4	5	1	14	5
14	4	1	8	4	12	5
15	5	3	6	3	11	6
16	3	0	5	2	8	2
17	6	2	2	2	8	4
18	5	1	4	2	9	3

Feeding—The feeding history was obtained in 219 cases. Of these 170 were entirely breast-fed for six months or more, except for the addition of cereal in the fourth or fifth month in a few cases. There were 52 of these with rickets, or 30.58 per cent. There were 34 infants that were breast-fed less than six months, most of these having had a subsequent feeding of a cow's milk mixture. There were 15 infants partially breast-fed for more than six months, 13 having had complemental feeding, and 2 supplemental feeding, consisting of a cow's milk mixture. This made a total of 49 cases based partially or entirely upon artificial feeding. There were 17 cases of rickets among these, or 34.69 per cent.

Most of the 219 cases when six months old had cereal added to the diet, vegetable when seven months, and orange juice in a large number of the cases by the third or fourth month. All cases in which rickets was diagnosed, with the rosary as the only definite sign, had received some anti-scorbutic in the diet for some time previous. Most of the breast-fed infants were entirely weaned by the

tenth or eleventh month. An outline of the feeding is shown in Table II.

TABLE II

219 Cases with Feeding Data
170 Entirely Breast-fed 6 Months or More—52 of These Rachitic, or 30.58 per cent

Breast-fed Less Than Six Months

Time B. F.	No. of Cases	Cases of Rickets	Later Feeding: No. of Cases	Feeding	Cases of Rickets
			9	Cow's milk mixture	0
1 mo. or less	10	0	1	Protein milk	0
			5	Cow's milk mixture	1
2 mos.	6	2	1	Malted milk	1
			9	Cow's milk mixture	5
3 mos.	11	7	1	Malted milk	1
			1	Protein milk	1
4 mos.	4	1	4	Cow's milk mixture	1
5 mos.	3	0	3	Cow's milk mixture	0
Total	34	10			

Time B. F.	No. of Cases	Cases of Rickets	Later Feeding
1 mo.	4	2	
2 mos.	3	2	Breast-feeding plus complementary or supplementary feedings of a cow's milk mixture.
3 mos.	3	1	
4 mos.	1	1	
5 mos.	4	1	
Total	15	7	
Total no. of infants either partially or entirely artificially fed	49	17	34.69% rickets.

Monthly Incidence—The cases grouped according to sex and the month they were examined in, with the incidence of rickets in each, is shown in Table III. This shows a very definite increase in the incidence of rickets from August to December, inclusive, with a total of 24.24 per cent rachitic cases in August, and 39.13 per cent in December.

TABLE III

Months	Males: No. of Cases	Males: Cases of Rickets	Males: Per cent Rickets	Females: No. of Cases	Females: Cases of Rickets	Females: Per cent Rickets	Total: No. of Cases	Total: Cases of Rickets	Total: Per cent Rickets
August	33	10	30.30	33	6	18.18	66	16	24.24
September	10	1	10.0	2	1	50.0	12	2	16.66
October	46	13	28.26	37	11	29.72	83	24	28.91
November	19	9	47.36	20	9	45.0	39	18	46.15
December	12	4	33.33	11	5	45.45	23	9	39.13

GROWTH

The factors considered under growth were weight, length, ponderal index and rate of growth. Curves were plotted from Baldwin's figures on the growth in weight and length of normal infants, both male and female. These are shown in Charts 1, 2, 3, and 4. Ponderal indices were computed from Baldwin's figures according to the formula

$$\text{(ponderal index) PI} = \frac{\text{(weight) W} \times 1000}{\text{(length) L}^3}$$

Curves were plotted for the same.

Figures of normal deviation were then computed from the normal curves by the semi-quartile method. This allows a 12½ per cent deviation above and also below the normal curve for normal deviation. These curves were plotted on each chart.

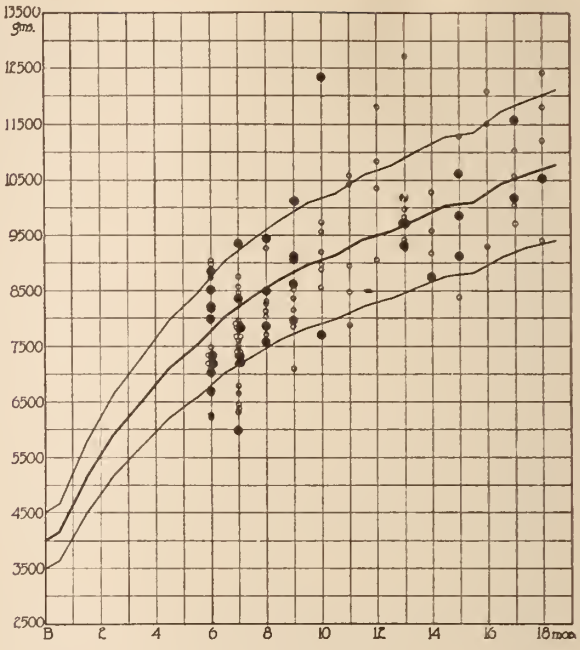


Chart I—Weight, Males

The figures of the cases included in this study were then entered about these normal curves, respectively, according to sex and the factor considered.

It will be noticed in Charts 1 and 2 that the cases in general compared well with Baldwin's normals in weight. Charts 3 and 4 show that, in length, they fell somewhat below those of Baldwin, while regarding ponderal index, Charts 5 and 6 show that they were somewhat above his, although, in general, were within the limits of normal deviation.

The cases were then grouped according to whether they were above normal, or below normal in weight, length and ponderal index with the sex given for each. The percentage of rickets in each group was computed. These figures are shown in Table IV.

TABLE IV

Condition	Males: No. of Cases	Males: Cases of Rickets	Males: Per cent Rickets	Females: No. of Cases	Females: Cases of Rickets	Females: Per cent Rickets	Total: No. of Cases	Total: Cases of Rickets	Total: Per cent Rickets
Overweight	13	4	30.76	9	4	44.44	22	8	36.36
Normal weight	94	30	31.91	77	22	28.57	171	52	30.40
Underweight	13	3	23.07	17	6	35.29	30	9	30.0
Overlength	..	..	.....	..	..	.....	..	..	.....
Normal length	117	36	30.76	102	31	30.39	219	67	30.59
Underlength	2	..	.....	..	..	.....	2	..	.....
High ponderal index	29	9	31.03	31	10	32.25	60	19	31.66
Normal ponderal index	89	27	30.33	70	21	30.0	159	48	30.18
Low ponderal index	1	..	.....	1	..	.....	2	..	.....
Extra rapid growth in weight	15	4	26.66	9	4	44.44	24	8	33.33
Normal or below normal growth in weight	105	33	31.42	94	28	29.78	199	61	30.65

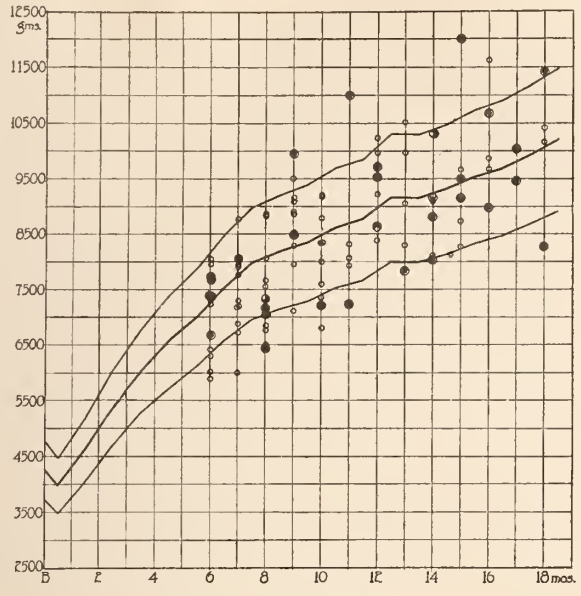


Chart II—Weight, Females

Weight—In total, these were 22 overweight infants, with 8 cases of rickets, or 36.36 per cent; 171 normal weight, with 52 rachitic, or 30.40 per cent; and 30 underweight, with 9 rachitic, or 30 per cent. Thus, a definite increase is seen in the percentage of rickets in overweight infants.

Length—In the case of 2 of the 223 infants, one female and one male with rickets, the length was not obtained. There were no overlength infants. The normal length infants number 219, with 67 rachitic, or 30.59 per cent. There were 2 underlength infants, with no rachitic.

Ponderal Index—There were two of the 223 infants, one male and one female with rickets, in which the ponderal index could not be determined on account of not having the length. Of 60 infants with a high ponderal index, there were 19 cases of rickets, or 31.66 per cent; 159 with a normal ponderal index, with 48 rachitic, or 30.18 per cent; and 2 with a low ponderal index with no rachitic.

It is plainly seen in the ponderal index charts that the majority of cases of rickets not only occur in the upper normal deviation level, but that the closer the upper normal limit is approached the more cases of rickets are seen. Therefore, had the normal deviation limits been placed closer to Baldwin's normal curve, there would have been a much larger percentage of rachitic cases in the high ponderal index group than as it now stands.

Rate of Growth—From the previous weight records, which in many cases contained monthly weight observations, curves were plotted of all the cases considered in this study.

The curves were then compared with those of the normal according to the sex considered, and any extending above the normal deviation limit were classified as cases of extra-rapid growth.

In this group there were 24 cases of extra-rapid growth in weight, with 8 cases of rickets, or 33.33 per cent. The other cases were either normal or below normal growth in weight and totaled 199, with 61 cases of rickets, or 30.65 per cent.

Thus, it is easily seen, that there is an increase in the number of cases of rickets among infants with extra-rapid growth in weight.

SUMMARY

In this study 223 infants were examined. Among these there were 69 cases of rickets, which made a percentage of rickets of 30.94. The percentage of rickets was 30.58 among the infants that had been

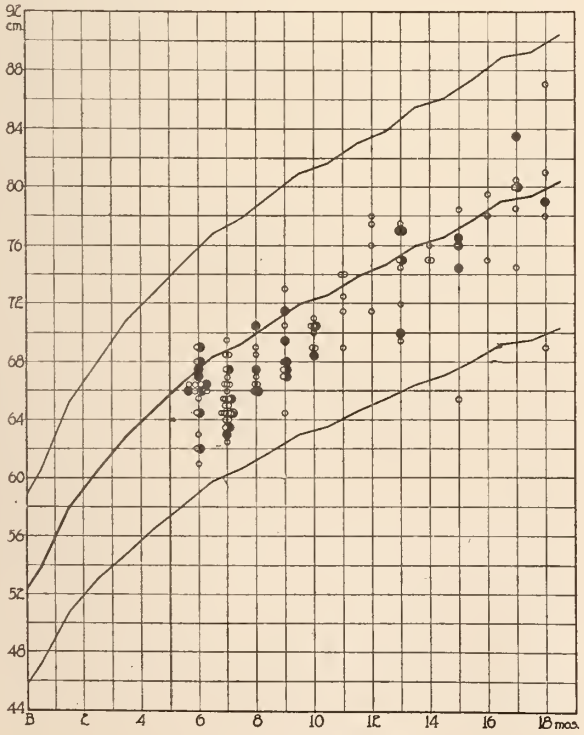


Chart III—Length, Males

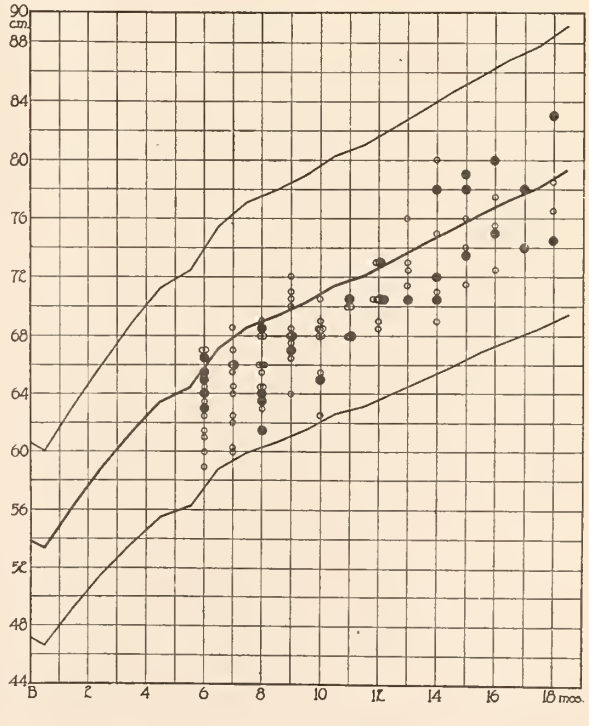


Chart IV—Length, Females

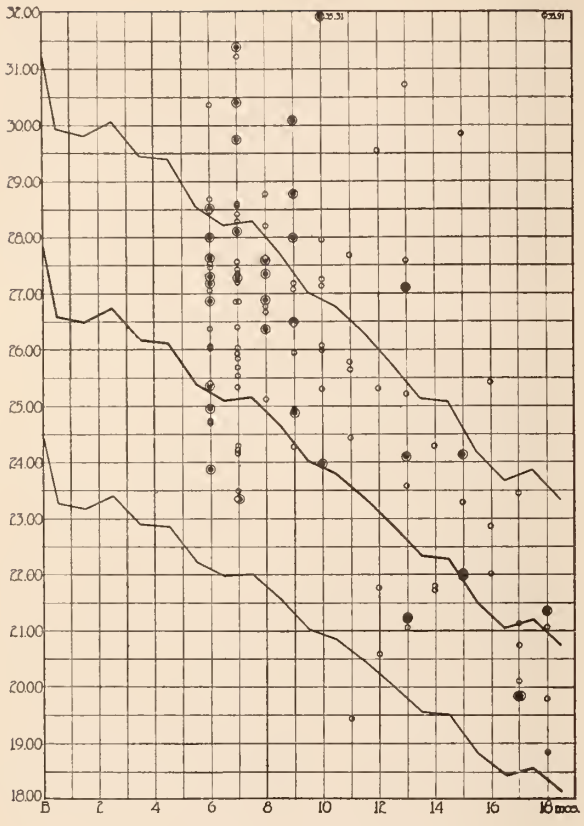


Chart V—Ponderal Index, Males

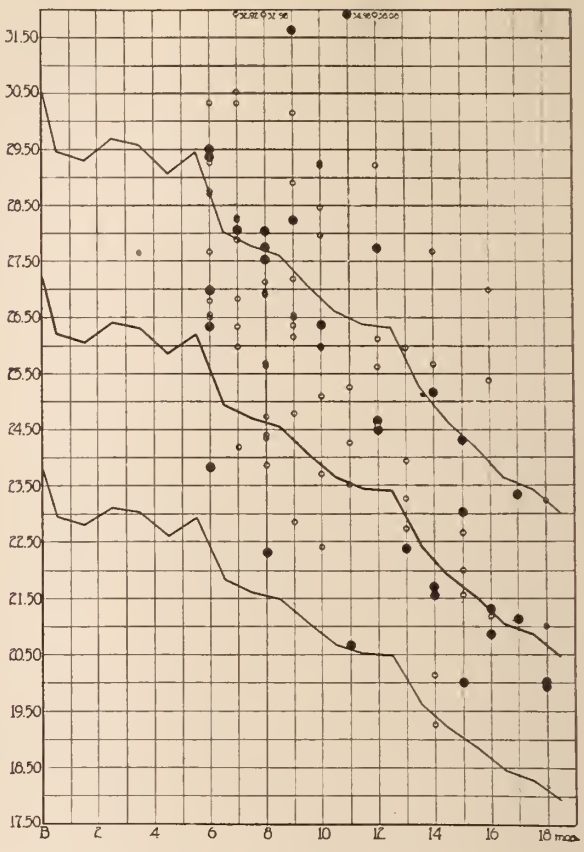


Chart VI—Ponderal Index, Females

Note—White center, non-rachitic; black center, rachitic.

breast-fed for six months or more, as compared to 34.69 per cent among those that were partially or entirely upon artificial feeding during the first six months. The percentage of rickets among the cases examined in August was 24.24, while in December it was 39.13.

There was 36.36 per cent rickets among the overweight infants, as compared to 30.40 per cent among the normal weight, and 30 per cent among the underweight.

There were no overlength infants. Among the normal length infants, the percentage of rickets was 30.59. Only two infants were in the underlength group and neither of these had rickets.

Of the infants with a high ponderal index, 31.66 per cent had rickets, and of those with a normal ponderal index 30.18 per cent had rickets. There were only two infants with a low ponderal index and neither of these had rickets.

The percentage of rickets among the infants with extra-rapid growth in weight was 33.33, as compared to 30.65 per cent among those infants with either normal or below normal growth in weight.

CONCLUSIONS

1. There seems to be a definite relation between growth in weight and the development of rickets.

2. Probably overweight infants are more susceptible to the development of rickets.

3. Also, an increased susceptibility to rickets probably occurs in infants with extra-rapid growth in weight.

4. The factor of the seasonal incidence of rickets is again borne out.

5. An increased incidence of rickets among artificially fed infants is again demonstrated.

I wish to express my appreciation to Rood Taylor, assistant professor of pediatrics, University of Minnesota, for suggesting this study and for valuable advice. I also wish to thank R. E. Scammon, professor of anatomy, University of Minnesota, for valuable suggestions.

Proceedings of the Annual Congress on Education, Licensure, Public Health and Hospitals—A report, a copy of which, no doubt, has been received by officers of all State boards, is so distinctive that it deserves more than passing comment. Issued in a comprehensive form, it constitutes an innovation, and the press of the American Medical Association is to be commended for this interesting and valuable publication.

These proceedings are expressive of the close inter-relationship that has been developed between the allied subjects of medical education, licensure, hospitals, and public health in this country, and at the same time each annual congress forms an index of the progress of American medicine, particularly as it relates to the betterment of human welfare.

A review of the discussions presented further emphasizes the wisdom and foresight that led to the establishment of these annual conferences, and the stimulating contact of the allied interests represented by the several organizations comprising the congress.—(Federation Bulletin, October, 1923.)

EDITORIALS

CHANGE IN THE NAME OF THE JOURNAL

At its last meeting the Council of the California Medical Association passed a resolution authorizing the work previously conducted under the name of *Medical Society of the State of California* to be carried on under the name of *California Medical Association*. Among other matters considered and decided was that of appropriate change in the name of the Journal, and by resolution the Council instructed the editor to change the name of the Journal in some appropriate manner. Carrying out these instructions, with the approval of the Executive Committee, the name of the Journal has been changed, effective with this issue, to CALIFORNIA AND WESTERN MEDICINE.

This change at the same time complies with previous action of the House of Delegates and of the Council endorsing co-operation with the states of Utah and Nevada in making this Journal their official organ. Part of the agreement was, that at an appropriate time a more inclusive title would be given to the Journal.

ABOUT THE 1924 SESSION OF THE CALIFORNIA MEDICAL ASSOCIATION

The annual session of the California Medical Association will commence this year on *Monday*, May 12, instead of Tuesday, as heretofore, in order that Northern members may motor down with their families on Saturday or Sunday, and that those going South by train may take advantage of the $19 rate given on a 16-day round trip ticket starting Friday, Saturday or Sunday.

Headquarters are to be at the Los Angeles Biltmore hotel, Fifth and Olive streets, Los Angeles. The schedule of hotel rates, and Southern Pacific rates and time-table are appended.

All members who expect to attend the 1924 meeting should make their hotel reservations early with Mr. James H. McCabe, office manager of the Los Angeles Biltmore, who will confirm such reservations direct with the physician. The State office handles no reservations whatever.

The Committee of Arrangements report that they are providing for the visiting ladies golf and other entertainment. The scientific program will appear in a later issue.

Many section programs are full, and secretaries have been compelled to refuse good papers. Members who desire to have such papers published in the Journal can submit them to the editor after presenting them to some county or other medical society.

Hotel reservations for the State meeting this year are being handled through Mr. James H. McCabe, office manager of the Los Angeles Biltmore, Fifth and Olive streets, Los Angeles. The rates are as follows: (Each and every room has its own bath.)

Single Rooms—$5 to $10 per day.

Double Rooms—Double bed, $7, $8, $9, and $10 per day; twin beds, $10 and $12 per day.

Connecting Rooms—Three persons, $14 to $22 per day; four persons, $18 to $24 per day.

We would suggest that members make their reservations **now** direct with Mr. McCabe, that there may be no disappointment later.

SOUTHERN PACIFIC RATES FOR STATE MEETING

Leaving Friday, Saturday, Sunday, 16-day ticket, round trip, $19.

Leaving Monday, 30-day ticket, round trip, $22.

Lower berth, $4.50; upper berth, $3.60.

Drawing-room, $16.50; compartment, $12.75—two tickets.

Third and Townsend Streets

Lark—Leaves San Francisco 8 p. m., arrives Los Angeles 9:35 a m. Leaves Los Angeles 8 p. m., arrives San Francisco 9:35 a. m.

Sunset Limited — Leaves San Francisco 5 p. m., arrives Los Angeles 7:45 a. m. Leaves Los Angeles 8 p. m., arrives San Francisco 10:30 a. m.

Daylight Limited — Leaves San Francisco 7:45 a. m., arrives Los Angeles 8:30 p. m. Leaves Los Angeles, 7:45 a. m., arrives San Francisco 8:30 p. m.

Ferry Building

Owl—Leaves San Francisco 6 p. m., arrives Los Angeles 8:50 a. m. Leaves Los Angeles 6 p. m., arrives San Francisco 8:50 a. m.

Padre (via Coast) — Leaves San Francisco 7:40 p. m., arrives Los Angeles 9:35 a. m. Leaves Los Angeles 7:45 p. m., arrives San Francisco 9:35 a. m.

Sacramento

Sacramentoan—Leaves Sacramento 4:10 p. m. arrives Los Angeles 7:55 a m. Leaves Los Angeles 6:15 p. m., arrives Sacramento 9:55 a. m.

OPTIONAL MEDICAL DEFENSE

LETTER NO. 4

February 6, 1924.

To All Members of the California Medical Association:

Dear Doctor:

The Indemnity Defense Fund was terminated as of November 30, 1923, and Medical Defense terminates as of June 30, 1924.

For those desiring it, Optional Medical Defense has been provided by the Council, effective July 1, 1924. Under this plan those not desiring Medical Defense are relieved from any financial obligation for the same, and Medical Defense is provided for the many members that have stated they wanted it.

This Optional Medical Defense by the Society's legal staff will be conducted in conjunction with the member's insurance carrier. All indemnity, including court costs, will be borne by the insurance carrier. For example, a member having Optional Medical Defense will be defended not only by the attorneys of his insurance company, but also by the Society's attorneys acting with the insurance company's attorneys for him; the Society's attorneys as his counsel being particularly concerned with all features of the member's defense touching him professionally and personally. Such arrangement is entirely acceptable to the insurance companies writing physicians' defense. This defense will be of the same character as that heretofore maintained by the State Association, except that it will only be available to those who apply and pay for same.

Members interested in the eradication of unwarranted malpractice claims and cases, and in Medical Defense against the same, can do so by applying for membership in the Medical Society of the State of California. This body was organized by the Council in June, 1923, immediately after the name of the

State organization, at the request of the American Medical Association, was changed to the "California Medical Association."

Any member of the California Medical Association in good standing, who has and maintains in force a standard physician's defense policy for $5000 or more, is eligible.

Dues for the first half year, from July 1, 1924, to January 1, 1925, are $5 (the dues for the first year having been fixed on the basis of $10 per annum). Dues are payable to the secretary, Balboa Building, San Francisco, California.

The management and conduct of this Optional Medical Defense is in the hands of a board of seven trustees. Those first elected are James H. Parkinson, Saxton T. Pope, William T. McArthur, George H. Kress, T. C. Edwards, Rene Bine and Charles L. Curtiss. The executive committee is James H. Parkinson, chairman; T. C. Edwards, Rene Bine, and Emma W. Pope, secretary.

Any member of the California Medical Association desiring to secure this Optional Medical Defense and to maintain the Society's present legal department should fill out, sign and mail to the secretary, Balboa Building, San Francisco,. the following application.

Very truly yours,
EMMA W. POPE, Secretary.

Application for Membership in the Medical Society of the State of California.—The undersigned, a member of the California Medical Association in good standing, hereby applies for membership in the Medical Society of the State of California, and agrees to comply with and be governed by its constitution, by-laws, and the rulings of its Board of Trustees and Executive Committee.

The undersigned understands that membership dues are payable annually, first half year's dues, July 1, 1924, to January 1, 1925, being fixed at $5, and that membership can be terminated by the member at any time by resignation or failure to pay annual dues.

The undersigned holds physician's indemnity policy in the amount of $..... issued by..... Company, which indemnity insurance for at least $5000 with any licensed company must be kept in force to entitle undersigned to defense by the Society.

.....

Address .....

AMERICAN MEDICAL ASSOCIATION BULLETIN

The A. M. A. took a fine long step forward when the house of delegates voted to supply the Bulletin to every Fellow of the Association free or as part of the service to members.

Are you reading your Bulletin regularly and carefully? we recently asked ten members as we met them in the day's work. Three of the ten never looked at it; six read it carefully, and one did not remember ever to have seen a copy. This editorial note is to call attention to the importance of the Bulletin as a source of interesting and important information and to urge its more careful perusal by a larger number of Fellows.

LINGUAL ABSORPTION OF NITROGLYCERINE

The application of nitroglycerine to the tongue for the production of its ordinary systemic effects appears to be a fairly common method of administering the drug. However, the reason for the great efficiency and promptness of action has not been understood. According to some, the effects of the drug could only take place after swallowing, and, hence, after absorption from the stomach or intestine. Therefore, the effects would be no better than from the ordinary oral administration. That the tongue is superior to other regions of the alimentary tract for absorption of nitroglycerine has been demonstrated recently by Grossmann and Sandor of the medical clinic at Zagreb.

From observations of the changes in the blood pressure and pulse rate in a considerable number of patients, Grossmann and Sandor found that qualitatively these changes were the same, but quantitatively different, depending on the method of administration of the nitroglycerine. The actions were found to be strongest with lingual application or by rinsing of the mouth with fluid containing nitroglycerine. The effects from ordinary oral administration were slower and weaker. Direct administration through a tube into the stomach produced no effects whatsoever, and direct duodenal administration (also through a tube) gave only weak effects. The results in patients with hypertension were the same as in normal subjects. The dosage used was eight drops of the spirits of nitroglycerine in 10 to 15 cc. of water for rinsing the mouth. In tablet form on the tongue, the nitroglycerine was just as effective as in the form of spirits, indicating that the tongue has a good absorbing surface.

These simple observations of the Jugoslavian clinicians indicate something of the mechanism responsible for the conversion of nitroglycerine (chemically, glyceryl trinitrate) into nitrite, since it is the latter group which is responsible for the pharmacological action. This conversion is currently attributed to the influence of alkalinity in the intestine, and of the tissues in part, at least, a deduction based on the old experiments of Hay, who showed that the treatment of nitroglycerine by alkali liberated the nitrite radical. However, Grossmann and Sandor found that the degree of alkalinity necessary for the liberation is greater than the alkalinity present in the mouth or in the tissues. Acids were found to lessen the liberation of nitrite, and this agreed with the diminished efficiency of action from direct gastric administration of the nitroglycerine. The greater efficiency from direct duodenal administration agreed with the liberating influence of alkalies. However, the acidity of gastric and alkalinity of the intestinal juices are variable factors, and so far as the mouth is concerned, the degree of alkalinity would be insufficient in any case. Hence, the authors conclude that ferments, which are known to liberate nitrite from nitroglycerine, are important factors, but they attach a still greater importance to lipoid solubility in the case of lingual absorption.

Thus, it is seen how simple it may be to obtain definite, accurate and critical evidence of the action of a drug under clinical conditions. After pharmacological analysis, this is the method of choice

for clinical therapeutics, rather than the empirical method as ordinarily practiced, and which amounts to nothing more than guessing and carelessness. By the same token, the pharmacological analysis is confirmed or corrected, and in any case benefited. But, the greater benefit, no doubt, eventually goes to the patient.

Grossmann, M., and Sandor, J.: Klin. Wochn. 1923, 2:1833, "Zur klinischen Pharmakologie des Nitroglycerins."
Hay: Deutsch. med. Woch., 1884, p. 440, "Ueber die Wirkung der Nitrite und des Nitroglycerin bei Angina Pectoris."

THE NEW CONTROL OF SURGEONS

If the recent article under this title by Mr. William G. Shepherd (Harper's Magazine) were only the usual stupid and in part untrue attack upon the medical profession of our country, it might be ignored, as such articles usually are. There are two phases to this new attack upon the 140,000 odd of the total of some 150,000 educated physicians of the United States that make it demand some attention by all friends of better medicine everywhere.

One of these points is the editorial commendatory note italicized and published at the top of the article, which, whether or not so intended, will not produce a pleasing reaction in the minds and hearts of readers who still believe in medicine as a humanitarian profession and who still believe the body of educated physicians are just as honest, and thousands of them just as capable, as are the handful that the author exempts in his diatribe.

The other important point in the article is, the implication that a special medical organization with only some 6000 members stands sponsor for the alleged information which the writer attempts to impart to the world. Unless careful readings of the article have misled us as to the author's intentions, some of his statements about the American College of Surgeons are fabricated; we hope with greater care than are some of his other statements that have no basis whatever in fact. It is hard to believe that the astute leaders of the American College of Surgeons, even if they thought as Shepherd implies they do, would be so stupid as to put such a very thin veil over the obvious propaganda which appears to run like a thread through the article. Nor is it conceivable that the authorities of the College of Surgeons, a private and unofficial organization, would endorse a tirade against their fellow physicians—a public confidence-destroying criticism which has its appeal in an invidious comparison between a few thousand physicians, members of a limited organization of one specialty of medicine, and the probably more than 75,000 other physicians who are also doing surgery in the country, and for the most part doing it honestly and well. They graduated from the same schools as did members of the College of Surgeons and are honorable members of the official medical organizations of the country.

Even should a few—and they are probably only a few—members of the College of Surgeons believe that their new and, in Shepherd's eyes, important obligation to their self-selected standards entitles them to assume such a holier-than-thou attitude, they would surely not be so dense as to deal the blow to their own organization that the article is sure to cause. There can be little doubt that, whatever else this essay may do, it will prove first a severe blow to the College of Surgeons, and secondarily of course, to the cause of better medicine and all medical agencies. Already reports are coming to this editor of the chortlings of glee among the enemies of medical progress. They are saying that there are only some 6000 honest physicians among 150,000, and that these honest ones have banded themselves together with a hidebound oath "on the honor of gentlemen" to save medicine.

As to the article itself, most of it is the usual line of stupid propaganda that physicians have grown accustomed to see in certain kinds of journals prepared by publicity agents. A few particularly choice bits with comment, which of course is unnecessary to physician readers, may help the article on its way. The author says:

"To put it coldly, it is not entirely unlikely that some day you or I or some one we love may be wheeled into an operating-room, put to sleep under an anesthetic and be helplessly subjected to a surgeon's knife, at the risk of having life leave the body then and there, or being physically weakened for life, for no other motive than to put money into the pocket of a surgeon or a doctor."

This is a wholesale indictment of the integrity not only of physicians, but of hospitals, which of course is true only in those rare instances that indicate the untruth of the proposition. The author must have had some qualms himself, because he hastens to assure the reader that he received his information from "the men of the white aprons and rubber gloves—the surgeons themselves." We, of course, don't know who his "rubber-gloved" advisors were, but all of the other 140,000 surely will not allow such uses of their names and bartering of their principles to go unchallenged. We shall be surprised if many of the members of the College of Surgeons do not repudiate some of the author's statements.

As an apology for not giving the names of the physicians who gave him the misinformation about their colleagues, Shepherd makes the statement that:

". . . my readers will please remember that doctors and physicians are under an oath, sacred to their profession, against publicity, so that I cannot use their names."

Physicians will, of course, smile when they read that statement, which to the unsuspecting general reader appears plausible. Surely a casual glance at the newspapers almost any day will convince any reader that all sorts of physicians, both in and out of the College of Surgeons, are being interviewed and are writing for public reading.

We assume that the author is being facetious when he discusses "cutting the greed glands out of surgery." He mentions that some of the handful of surgeons he endorses because they are "controlled" have become so greedless that they refuse to operate on the Chicago newly rich who have the operation habit.

He talks easily and freely about "fee splitting" and "division of fees" as if they were the same

thing. He condemns the physician for his part in splitting fees, but seems to feel certain that the surgeon is protected from blame for his part in a nefarious contract that requires two people to make, by the oath that some surgeons take "on their honor as a gentleman" that they won't split fees. It would be interesting to know if Mr. Shepherd believes that an oath changes a man's heart or even his conduct. If he does, he must feel lonesome in this workaday world.

Methods for the honorable division of fees where more than one physician has contributed service in earning the fee are provided for in the principles of ethics of the American Medical Association. Obviously, each physician is entitled to just the proportion of the fee he has earned, and this division must have the patient's approval. Obviously, any portion of any fee going to anyone who has not earned it is dishonest and forbidden by medical ethics—this is so-called "fee splitting" as distinguished from honorable and honest "division of fees." Of course, anyone who believes this dishonest "fee splitting" can be controlled by an oath made "on the honor of a gentleman" is inadequately advised of the methods of dishonest people.

One of the most obviously deceptive statements in this article is, "medical schools are recommending their students for internship in the minimum-standard hospitals." It would have been easy for the great surgeons the author says he consulted, as well as those the editorial note says have read and approved the article, to have told the truth, that the ratings of hospitals for internships were made and controlled by the Council on Medical Education and Hospitals of the American Medical Association and not by the American College of Surgeons, as implied in the article.

But why go on? Most physicians must have read Shepherd's article, because the editor of the Journal has never before received so many protests from angry men about any other article denouncing physicians unfairly, unjustly and, in part, untruthfully.

Of course there are instances of unnecessary surgery; of "fee splitting"; of physicians attempting more than they should with or without the knife; of over-charging, but they are not the rule, and such an onslaught upon the honor, honesty and integrity of a great profession shall not go unchallenged.

If reports to official medical organizations from their own members are true, dishonest methods occur proportionately among the 6000 odd surgeons who have pledged themselves "on the honor of gentlemen" that they would refrain from these nefarious practices as they do among the other 100,000 odd who have not taken the oath.

BROADENING OUR MEDICAL HORIZON

Elsewhere in this issue of the Journal is published a teaching innovation by the Department of Medicine of the University of California Medical School. In a letter William J. Kerr, head of the department, says that the object of this new method of teaching is to better prepare the student in the art of medicine, economics, ethics, and citizenship responsibilities.

Certainly, no one should know better than successful alumni the importance of this step, and they will know what to teach and how to teach it.

Let us hope that somewhere in their curriculum, as well as that of other schools, provision will be made to teach medicine as a service-loving vocation where wealth cannot be expected and where all service is consecrated.

"THE GORGAS IDEA"

Physicians everywhere are much interested in having the splendid services rendered to humanity by the late Dr. Gorgas recognized by some fitting monument to his memory. Franklin Martin of Chicago, who has been asked by some of those interested to canvass sentiment, was recently in California on that mission. He was entertained and spoke in Los Angeles and San Francisco.

On Wednesday evening, January 13, local fellow members of the College of Surgeons entertained the visitor at dinner at the Bohemian Club. After dinner Martin presented his tentative program for the development of the "Gorgas Idea" to a large audience of physicians at the San Francisco County Medical Society hall.

The subjects of "Standardization of Hospitals" and the proposal to extend "standardization" to all other agencies of medicine, including medical books and what not, was explained and commended. After indicating also the necessity of more and better organizations of physicians who would assume leadership in medical and public health matters, the speaker struck a responsive chord when he proposed a "Gorgas Foundation" as a living monument to the memory of our departed colleague, rather than the usual monument of brass and stone. It was pleasing and gratifying to physicians to hear reviewed the splendid work of Gorgas and the analysis of the great service he rendered in so many fields, but particularly in holding the medical services to our men during the war in the hands of those adequately educated and trained to give the best that medicine had to offer.

The fundamental idea of the development of the "Gorgas Idea," Martin stated, is to give to every individual the heritage to which he is entitled—Good Health—by means of:

Scientific research into the cause, prevention and cure of disease;

The application of such preventive and curative measures as may be necessary under the supervision of the leaders in scientific medicine;

Save to the world the present economic loss in human resources from preventable disease;

Prevent the stupendous economic loss resulting from sickness, ill-health and preventable deaths;

By transforming disease-infested localities into fertile and productive areas, increase the wealth of the individual and the nation.

President Wilbur, W. E. Musgrave and Celestine J. Sullivan were called upon by Wallace I. Terry, chairman of the meeting, and in speaking informally expressed the fullest endorsement of California med-

ical men in any wise movement to honor the memory of Gorgas.

President Wilbur obviously expressed the sentiments of the audience when he disagreed with Martin as to the alleged value of "Standardization" of hospitals and other medical agencies. He endorsed the position of the growing number of thinkers and writers who are not only pointing out the blighting effect "Standardization" has had and is having upon many movements that should be progressive, but that it is an important factor in forwarding the molding into common standards of mediocrity of vast throngs of people.

President Wilbur said that it was not "standardization" that the world and worldly things needed, but a return to individual initiative, activity and purpose fostered by education and sharpened by competition.

Musgrave agreed with Martin that medical leadership in all things medical was much to be desired, but that multiplying organizations was not the way to get it. Nationally and otherwise we are overorganized now and what we need most are "mergers" and not more new organizations. It is utterly futile to talk of national medical leadership with some two score national organizations of medical agencies and each one pulling in a somewhat different direction. It is equally futile to talk of State or more local medical leadership with dozens of organizations pulling at different angles and in which the election of new leaders annually changes the direction of force even in the same organization.

We are not headed toward medical leadership, but toward several medical professions and with mixed policies calculated to produce a slowing up of medical progress. "Standardization" of this or that medical agency for this or that purpose by this or that minority group is the best illustration of how that much desired leadership has gotten all in motion, but not the motion that means progress.

Celestine J. Sullivan, executive secretary of the League for the Conservation of Public Health, said: "One idea expressed by Gorgas could and should be applied effectively for the solution of our present diploma mill and quackery problem. When the question of admitting chiropractors, osteopaths and other members of the countless cults to the Medical Corps of the Army came before Surgeon-General Gorgas, he diagnosed and treated the problem in the same able way that he handled an epidemic. Although there was great political pressure brought to bear upon Gorgas, he did not compromise. He said: "A scientifically educated physician is at liberty, and it is his duty to employ any method of treatment whatever which he believes will benefit his patient. The best safeguard against preventable deaths is a good medical education, and we will require that any man coming into the Medical Corps shall have the degree of M. D. The admission of chiropractors, osteopaths and similar cultists would be regarded, and justly so, as lowering the standards, education and professional, of our Medical Corps."

The League for the Conservation of Public Health, in its Hospital Betterment work, has put this important Gorgas idea into practical effect in all representative hospitals of California. No hospital today worthy of the name will admit to its staff any of the cult representatives which Gorgas excluded from the Army Medical Corps for the good of the service. The present newspaper discussion of diploma mills and their quackish products, and the spectacular prosecution of a few itinerant quacks, will have no more effect upon solving the quack problem than would Gorgas have had in cleaning up yellow fever if he went to Havana and Panama with a fly swatter and killed a few pestiferous mosquitoes.

Gorgas diagnosed the problem of quackery correctly when he said it was an educational problem. And, it is obvious, that the prevention and cure of disease will have a heavy handicap until all those who are licensed to treat the sick are qualified to do so by education.

ADMISSION OF PATIENTS TO HOSPITALS

The latest of the periodic attacks upon the San Francisco Hospital again calls attention to an important problem in hospital management, namely, that of who should be responsible for the prompt admission of patients and who should have authority to refuse any but first-care service as a charge against the city and county.

San Francisco formerly had a very unenviable reputation for excessive red tape and prolonged delay in the admission of sick people to her hospitals. This reputation was carried by seafaring people to the far corners of the earth. Some of it was unwarranted at that time, and most hospitals in this city, and elsewhere in California for that matter, have long since solved their problem, fixed responsibility for admission in the hands of one person, in such a way as to insure the prompt first care of every sick person who applies.

We are not informed as to the details of the present San Francisco City and County Hospital situation, but we do say most positively that, if authority for admission to that hospital of patients whom physicians believe should have hospital care and who are unable to pay for it is not limited to the social-economic diagnostician, subject to review by the director of the hospital and no one else, there is something wrong with the admitting system. It is, of course, entirely within the province of the Board of Health, as the governing body of the hospital, to lay down policies and general rules and regulations and designate an executive to see that they are carried out. Beyond this point neither the board nor any officer of the board should go.

The importance of a careful selection of the right social and economic diagnostician cannot be overemphasized. Neither can we overemphasize the full co-operation and support she should have in her work so long as she is right, and when she is wrong too often, the position should be vacated and another appointment made.

We are not disposed to believe much of the current comment to the effect that political favor has to do with the admission or rejection of sick people by this great hospital, as it does in some other county institutions.

Two points, and two points only, should govern the admission or rejection of patients by the hospi-

tal: One is, that the patient should be competently decided to be unable to pay the cost of hospital care, and the other is, that the patient should be suffering from conditions that the examining physician believes may be best cared for either temporarily or permanently in a hospital. The obsolete, unfair rule which requires that the patient shall be a resident within the political unit for six months or a year before being eligible to admission to most county hospitals ought to be abrogated. From the standpoint of public health and the protection of other citizens of the city and county, the mere fact that the patient is within the political jurisdiction should be all the evidence of citizenship required. We, of course, are fully advised of the complaint that some of these people are loafers who migrate from one county or State to another with the changes of climate. Nevertheless, they are human beings and we are not prepared to endorse rules and regulations which cause neglect or delay in their treatment, this not only in the interest of the wanderers' health, but as a protection of the public health against the various infections these patients so often carry.

TAXING PHYSICIANS UNFAIRLY

There are Federal, State and municipal taxes upon physicians that are unfair and discriminatory.

The Harrison Narcotic Law—Every physician who dispenses certain narcotics must pay a special tax of $3 toward the support of a bureau charged with the duty of checking up on the doctor's honesty. Actually, the bureau goes much further: It provides a complicated and frequently changing system of reports that require a great deal of the physician's time to render and which are needlessly inquisitorial. The whole government machinery for the administration of this law has become as complex and expensive as the average government bureau becomes when given time and plenty of money. The autocratic attitude of some of the enforcement officers is not calculated to make better citizens of physicians. A bill reducing this tax was introduced in the last Congress by Congressman (doctor) J. J. Kindred of New York. We are informed that similar legislation will be proposed in the Sixty-eighth Congress.

State Taxation—California has for several years had a law which requires all physicians to pay to the Board of Medical Examiners a $2 registration tax. The original law provides that this fund shall be used by the board for its expenses in enforcing the provisions of the Medical Practice Act. This law has always been considered by practically all physicians as unjust and unconstitutionally discriminatory. However, so long as the money was used in safeguarding the public health no concerted action looking to repeal of the law was taken. Now that, under the "efficiency and economy" program of the State Government, these funds are turned in to the State treasury and used, at least in part, for the general purposes of government, it is about time for concerted action. Legal action against the payment of this tax bringing out diversion of the funds from the use provided in the original law would probably meet with public approval and might attain a favorable verdict in court. In any event, the subject may well be considered by the California Medical Association with a view to asking the League for the Conservation of Public Health to promote repeal legislation.

Municipal Taxes—An ever-increasing number of municipalities are placing a special privilege tax against physicians. Usually these are flat rate assessments and some of them are very high. This form of special taxation is almost universally resented, the reasons being that the physicians always have given their time free in the medical care of the poor of the municipality. They object to rendering free service and being taxed at the same time. In any municipality or other government unit the amount of service given freely to wards of the unit is many hundred times the amount of the tax. That the government unit should either pay for the physicians' time given to them or relieve the physicians from special license taxes will be endorsed by all right-minded people.

It is irritating, unjust proceedings of this character that may some day force physicians into strong organizations.

TREATMENT BY NEGLECT

Theodore Diller, Pittsburgh (Journal A. M. A., December 22, 1923), is of the opinion that there are patients who are examined far too much. The self-centered psychoneurotic delights in examinations, re-examinations and more examinations. And in these days of many clinical procedures and manifold laboratory tests there is great risk of over-examining certain of these psychoneurotics. There is a judicious neglect which the physician makes in his visits. It is extremely important and necessary that enough time be given to hear the patient's story; but it is a mistake to spend time in hearing undue repetitions of this story. While the first visit may be of an hour's duration, the next one may be half an hour; and other visits of a minute and a half may be most appropriate. There are times when the patient is much better visited once a week or once in two weeks rather than every other day. There is a type of psychasthenic patient that leans on drugs, on appliances or members of his family, and on his physician. He does the maximum leaning instead of the minimum leaning, and does not look forward to the time when he will not lean at all. The job of the physician is to lead him to lean less and less and, if possible, to walk alone and not lean at all.

Diller's remarks will crystallize one important truth in the hearts and minds of true physicians. The author makes no claim that he is advancing anything "new" and he no doubt realizes that most good physicians are practicing what he preaches. More should do so and some undoubtedly will be recruited to more effective service by the able presentation of the subject.

Thoughtful minds in running around and behind the article will readily see many applications not mentioned in the article, one of the most important being that many communities are doing in a wholesale way just what Diller cautions against, by creating so much machinery of such wide variety for the examination and treatment of the sick that active competitive methods must be utilized to get "business" for them. Almost any "progressive" community is now so well supplied with medical "mills," usually operated by non-medical people, that "grist" must be reground in order that they can all make a showing.

Whatever else the growing system does, it insures plenty of just what Diller's article cautions against.

Medicine in the Public Press

Why Not Build Highland Hospital?—One of the most curious and certainly the most expensive method yet reported in financing and building a hospital is that now dragging its weary way along in Alameda County. Periodically, for the last several years, newspapers have given much space to what is planned to be done. Too much of the publicity deals in futures.

Several years ago a site was purchased and plans approved for a new County Hospital to cost some $3,000,000. A hospital was much needed then and is more needed now. Whether the county needs or will support a $3,000,000, over 500-bed hospital, if or when it is built, remains to be seen. It will cost easily $900,000 a year to operate a real hospital of that size if it is completed now. The longer the delay, the more it will cost, if the accounting system takes cognizance of the interest on the various sums that have already been spent, together with the interest on tax-collected money or interest and amortization charges on bonds, if any are to be sold.

Can you imagine any business man starting out to make a three-million-dollar investment by putting in some one-third or one-half million dollars a year with no hope of receiving any returns either in money or service until after the last installment had been paid? Why tie up hundreds of thousands of dollars a year for year after year with no return in service or money and no hope of any for years to come? If installment methods had to be followed, why were installment funds not allowed to accumulate and draw interest until enough was on hand to build? Or at least complete each unit and put it into service as finished? The interest on these installments over the years already gone by and those apparently yet to come would have been a pretty penny. With funds available, less than two years would be ample time to build from the ground up. Why not give the long-suffering taxpayers something for their money if not by giving better care to more people who need it, then at least by accumulating interest on tax money until it is needed?

Distinguishing Between Facts and Propaganda in Health Work—When Pearl published that interesting book upon the Biology of Death, in popular parlance he started something. Particularly when, to prove that other elements than the work of health agencies have been instrumental in reducing the death rate from a considerable number of causes, he submits the following argument: He compares the decline in the mortality between 1900 and 1918 in two groups of diseases—A and B. The first group, A, are the so-called "controllable" diseases and include: (1) tuberculosis of the lungs, (2) typhoid fever, (3) diphtheria and croup, (4) dysentery. For them, the claims of the health people have been made. The second group, B, include four so-called "non-controllable" causes of death, namely: (1) bronchitis (acute and chronic), (2) paralysis without specified cause, (3) purulent infection and septicemia, (4) softening of the brain. No one, he says, would claim that the public health program has in any way been responsible for the decline in these death rates. He then shows that the rate of decline from year to year in both groups A and B has been about the same during this period of eighteen years.

The conclusion is, therefore, obvious that if conditions can decline without the intervention of public health work, then public health work cannot assume credit for the decline in those conditions with which it does deal.

To clinch the argument still further, Professor Pearl then compares the decline in the mortality from two diseases—namely, typhoid fever and diphtheria—in two groups of countries, A and B, A having a highly developed public health and sanitation program and B not having such program. Under the first head are included Australia, Austria, England and Wales, and Germany; under the second head are included Italy, Jamaica and Rumania. Again, the writer indicates that the rate of decline in the death rate from typhoid fever and diphtheria has been about the same in the two groups of countries.

We are not at this moment discussing the merits or demerits of Pearl's statements, but rather want to point out the sudden and emotional outbursts of protest that come from so many sources. It is interesting to glance over a collection of the criticisms and to note how closely their authors are connected with one or more of the numerous organizations who have been termed "job initiating" and "job protecting" in their primary purposes.

Louis I. Dublin (The Survey) says: "Dr. Pearl has a real complaint with those who claim the 'entire decline in the death rate which has occurred has been due to the efforts of health officials, whether conscious or unconscious, as is often asserted and still more often implied in the impassioned outpourings of zealous propagandists. The open-minded student of the natural history of diseases knows perfectly well that a large part of the improvement in the rate of mortality cannot possibly have been due to any such efforts.' And in elaborating this complaint he is inclined to belittle the value of activities which health workers consider unquestionably effective and even to imply that some, which, like the tuberculosis campaign, are sacrosanct, are of little if any value."

Pearl is only one of the many who are beginning to speak forcibly of the all but negative value of the so-called statistics that are in reality propaganda by half-baked so-called health organizations. If health work is not put back into the hands of persons educated and trained in medicine there is real danger that legitimate, well-directed efforts may suffer because of the uncontrolled vaporings of this or that incompetent "uplift" or public health or anti-something organization.

Who is a Child, Medically Speaking?—The problem raised by the query is one of some magnitude in medical school faculties. Attempts at its solution cause more controversies and heartburnings among medical teachers than the public realizes, or, for that matter, more than either the public or the medical profession are particularly interested in. Nevertheless, it is to a degree everyone's problem, because as the young medical student is taught, so is the physician likely to practice.

The first phase of the problem is its lower register, as it were—the boundary line where the obstetrician leaves off and the pediatrician picks up the problem of the infant's health and medical care. Many obstetricians consider the child in their field from conception until one or more years old. Many pediatricians expect the infant to be handed to them at birth, and some of them are following the welfare group in claiming the child's care before its birth, leaving the mother detached, as it were, to the obstetrician.

Silly you say, and so it is; but if you think it isn't a live question, go to almost any medical school and get the various reactions.

Then there is the upper register, or when does a child cease to be a child, medically speaking, and pass from the field of pediatrics to that of adult medicine. Pediatricians have not, as a rule, been staying put on the answer. They have moved the age of childhood, or, more correctly, the pediatrics age, up until they now claim it extends to 16 years, and some even to 18 years of age.

Silly you say again, and again you are right; but so long as medical students are turned out to practice with these and a dozen other more or less unimportant controversies ringing in their ears, just so long will there be discord.

These and dozens of other problems have grown and continue to grow out of the ridiculous lengths

to which "specialization" in medical teaching and practice is being carried.

What a splendid service medical schools would render both to physicians and the public by agreeing upon and teaching along some more or less similar lines.

The Second Coming of Coué—The pitiful spectacle of this propagandist's second coming to our country and his recent first visit to California is well summed up by the San Francisco Bulletin when it says editorially:

"The second coming of Emile Coué to America is in marked contrast against the blare of trumpets and the front-page spreads with which he was greeted on his first arrival.

It was scarcely known that he was in America until there was word of his arrival in San Francisco.

Less than two years has sufficed for an almost complete slump in the reputation of one who, for a time, was declared to be one of the world's great thinkers and benefactors.

From comparative obscurity as an apothecary in Nancy he was suddenly raised to a notoriety that was mistaken for the beginning of enduring fame.

Miraculous cures of all manner of diseases and ailments were said to have been wrought by the mere repetition of his supposedly magic words.

Nor is there reason for doubting that in many cases cures were actually effected. Many complaints real enough to the victims themselves are no more than the result of a disordered imagination, and when there is actually nothing the matter with a patient Coueism and similar isms are very often effective.

Their weakness is that the cures do not often last. The patient comes to realize not that his ailment was imaginary, but that there was self-deception in the cure. The old abracadabra will not work, and a new one must be found.

Coué gave the world a new one when he devised the formula, 'Every day in every way I am getting better and better.' It was so catchy, so simple to remember, that everybody in forty or fifty languages was repeating it.

But there was a catch in it. Very soon the thing was seen to be very much like trying to lift oneself up by pulling at one's bootstraps.

Of course, all this says nothing of the personal magnetism of M. Coué. That is a force admitting of no disputes, but personal magnetism of his kind must be personally or directly applied, and such a man cannot treat because he cannot reach all mankind.

If there is anything serious the matter there is nothing like calling in the regular physician."

Prayer as a Therapeutic Agent—An article on this subject (Christian Advocate) has been sent in for comment in this column. The minister who wrote it feels that the ministers are working in a complementary manner with the doctors in the treatment of physical diseases, but feels that the doctors do not assist the ministers as they should in the ministers' field of healing in mental and soul sickness.

There are two classes of exceptions to this general conclusion suggests the minister. One class is the psychologists, whom the author considers followers of the most popular science of healing. He cites as most brilliant studies of the subject particularly the books called "Outwitting Our Nerves" by Josephine Jackson and Winbigler's book on "Suggestions." He is particularly pleased with the statement in the latter book that "the day of belief in the healing power of drugs is passed." Thus we have the master key to the author's mind.

The author praises one group of physicians, among whom he classes Hyslop of England and R. C. Cabot of Boston as great representative leaders. The author quotes Cabot as saying:

"Healing comes to some individuals directly through prayer, I am sure. I use it in my practice and rely upon it more often than medicine. . . . If I had no material means at hand I should use prayer alone, with confidence that it would work the cure."

So that's that.

Intellectual Giants Disagree About Diet—The ideal health-insuring breakfast discussion recently so warmly championed by so many people, each with his own ideas upon the subject, is now being heatedly argued in England. Recent Associated Press dispatches of a controversy between two eminent men of letters show how we agree about what to eat:

Bernard Shaw and G. K. Chesterton have locked horns in another controversy—whether Great Britain ought to brighten its breakfast tables with importations from America, such as grapefruit, orange cocktails or other fruit dishes.

Shaw, a vegetarian, says the suggestion of fruit dishes makes his mouth water, but the roast-beef-eating Chesterton contends that if there is one thing that would justify armed assault on the United States it is "this attempt to introduce the American diet on the British breakfast table."

Their controversy was inspired by a little piece sent to the newspapers by Peggy O'Neil, the American actress, who is playing in London, in which she said the English breakfast was a terribly dull and depressing thing, and begged for the brightening influence of fruits.

Rushing to the defense of his homeland fare, Chesterton declared Americans should never raise the subject of breakfast in the presence of Englishmen.

"The Americans sleep in hothouses," he said, "and wake up so thirsty that they are obliged to devour quantities of fresh fruit and drink gallons of ice water and alcohol, but it isn't breakfast. If there is one glorious thing in England which must never die it is the breakfast of bacon and eggs."

"Why bacon," Shaw inquired. "Do the Jews never enjoy their breakfasts?"

"Mr. Shaw would have been a very intelligent man," rejoined Chesterton, "if only he had always had boiled elephant or tiger for his morning meal."

"Pardon me," Shaw retaliated, "Mr. Shaw is a very intelligent man. Methuselah could hardly have been expected to go on eating pigs and pullets every morning for 969 years. Manna will be the food of the future. Must we always be condemned to slops and marmalade? Now, if Chesterton had attacked buckwheat cakes and molasses I should have sympathized, but fresh fruit! My mouth waters."

Lunatics of Literature—"Psychiatry, or morbid psychology, is the most popular branch of medicine today with the layman, and the most unpopular with the physician," says Joseph Collins in a discussion of Lunatics in Literature (North American Review). "Yet most of the stories of the past ten years would testify that their writers had never set foot in an institution for the insane nor made the acquaintance of any of the inmates.

"No one has ever been able to define insanity satisfactorily. There is no reason for believing that it will ever be accomplished. Nevertheless, the term will continue to be used derogatively and diagnostically. Insanity results in, or is the result of, disorder of personality. It is manifest in thought or in conduct, or in both. The individual whose personality disorder is confined to thought is not considered a lunatic by the law or by his neighbors, although he may be the victim of definite mental disease. He does become a lunatic when his conduct is at variance with that which we recognize as normal, proper, good, safe, legitimate."

After a further most interesting and enlightening analysis of some of the old and recent lunatics of fiction, Collins says: "It is desirable that we should become saner both as individuals and as nations. That we are becoming less so as individuals the statistics of institutions for the insane would seem to prove; that we are becoming less so as nations needs no proof, but if it did I could readily supply

it. We get the Laocoon grasp on disease when we know whence and how it comes. We await this information in regard to insanity. Meanwhile it only throws sand in the gearbox of the available machinery for finding out about it to create literature in which established facts are misrepresented. If we are going to have insanity in fiction, let us have the real thing."

Chiropractic Fountain Head Addresses Sciots—"Early to bed and early to rise,
"Work like mad and advertise,
"And you will be healthy, wealthy and wise,"
was the keynote of B. J. Palmer's address recently to the Sciots of San Diego. His address ranged from a forceful exposition of American business methods of firm, community and national advertising, and concluded with a brief but stirring discourse on the aims and purposes of Masonry. He emphasized and re-emphasized the importance of honesty in propaganda and advertising. Some said that indeed he did "protest too much."

Plastic Surgery Enters Beauty Specialty Field—An international clinic composed of British, French, and American surgeons has been opened in London. In addition to doing the recognized plastic surgery, this clinic proposes to frankly enter the field now pre-empted by beauty specialists.

Public Health Nurse's Report—In a recently published and otherwise commendable monthly report of a public health nurse, we find these illuminating items: "Pupils found defective, 84; defective corrections, 39; minor treatments, 97."

Definite practice of medicine is being more and more engaged in by nurses and other unlicensed and inadequately educated persons. It does not augur well for the future of nursing, and surely nurses have enough to do in the field they have been trained and educated to fill and in which their services are needed.

Shall Clerics Practice Medicine?—The Church of England has had a distinguished committee of church authorities and physicians working on this problem for some three years. The committee draws some interesting conclusions, some of which are:

1. It is not the function of the Church to apply its means of restoration to no higher end than the recovery of bodily health. . . .
2. No "sick person must look to a clergyman to do what is a physician's or surgeon's work to do."
3. The committee recognizes the duty of the Church to combat disease, and declares that it has a certain field in which it can act properly and advantageously.
4. The report, as it is summarized in the New York press, recommends, in effect, that methods hitherto confined to the Church of Christ, Scientist, or to psychoanalysts, should be established as part of the Anglican practice, with this distinction, that, while the majority of the faith-healing cults disdain the medical profession, the Church of England committee is fully mindful of medical science, and proposes that the direct power of moral and spiritual suggestion be allied with scientific knowledge. No separate or distinct ministry of healing is planned, nor is licensing of individual healers or official recognition of healing societies recommended.
5. The report severely scores the amateur healers practicing psychology as a treatment for disease, declaring that the committee "cannot be blind to the fact that the exponents of some of these methods have departed from legitimate fields of scientific investigation and have propagated views that are subversive both of moral and religious principles."
6. No case of the cure of organic disease was found by the committee.

The Better Health and Longevity Association—Under this name there has recently been launched an association with headquarters in Chicago for the promotion of periodic medical examinations of all adults.

"Americans have the best teeth in the world," said Edward H. Ochsner, president of the Illinois State Medical Society and one of the organizers. "They have them because they have the best dentists and have been taught to have their teeth examined at regular intervals.

"Our new association will sponsor physical and dental examinations for every adult in Illinois, at least once a year. Sickness and contagion will be greatly decreased, we believe, and millions of dollars will be saved to the laboring man, the employers and casualty companies," he declared.

"If we can reduce the average day's illness three, two or even one year, millions of dollars will be saved," said Ochsner.

Periodic medical examinations, if wisely done and adequately followed up with carefully prepared reports of findings and treatment, would do as much for the health and happiness of all people as any other health-improving service yet suggested.

The real reasons as to why children are not included in the scope of the various organizations and the thousands of independent physicians engaged in this work ought not to be left out of consideration. Actually, children need the examinations as much as do adults.

Many physicians are missing some wonderful opportunities in this field of medicine, opportunities to render a fine service for their communities and increase their own income at the same time. When the work gets into the hands of a comparatively few clinics, health centers and other groups controlled by non-medical people, we may wake up and begin to call for action.

The opportunities are good to promote this service in California as it should be promoted in the best interests of physicians as well as other citizens. But that opportunity is not going to last long—not over another year or two—if we can read the signs of the times aright.

Is this Class of Inadequate Medical Practice Necessary?—Items similar to the following are a feature in all news-clipping services:

"The school nurses are at present performing most valuable services to the community, in examining school children periodically and suggesting treatment. They can be called in by inexperienced school teachers in case of illness among pupils, and thus by a quick diagnosis are a force in combating against epidemics. In the rural districts these nurses go directly into the homes where they are often able to find the direct causes of the child's ill health."

It is perfectly obvious that a systematic attempt to limit the practice of medicine to the treatment by drugs of disease is being made. It will then be possible to assign the more important services of physicians in preventing, diagnosing, and even the treating of disease by any method except poisons, to any group of nurses, teachers or others who are trained for their own legitimate work but not to practice medicine, which many of them are now doing.

Yes, We Have No Oranges—Since the comparatively recent dawning of the day when everyone is a "doctor" and the kind that talks at that, we are "larning" a lot we did not before know. Thus, during the last few weeks, we have seen the spectacle of the nutrition "experts" of a great commercial organization asserting that candy is not fattening.

About the same time other groups of specialists have "discovered" that oranges may produce as beneficial results as milk in food for school children.

These are only two small samples of what we may expect when everyone is "educated in medicine."

This So-called Health Education—A paid employe of the department of education uses your taxes to pay her salary while she broadcasts this erudite medical wisdom. "Health is coming to be generally

recognized as an essential and primary objective of education. What can schools do to produce healthy children? They can provide healthful surroundings that will promote, not menace, the health of children. They can give instruction in matters of health, and recognize the fact that instruction is of little value unless it functions in habit of healthy behavior."

If you can beat that, we would like to hear from you.

Physical Examination of School Children — We were surprised the other day to see the broadcasted news-story that the director of physical education was going to have some 50,000 school children examined before they entered school this year. That was a bold statement for a government employe to make in California. Sure enough, next day the statement was modified to mean only those children whose parents wanted the examination made. At the same time the papers published an interview with the chairman of the Christian Science publicity committee endorsing the educator's "modified" statement.

If it were intended that the examination of school children should be carefully made by educated physicians and their findings given to parents as permanent records for the information of physicians who might be called upon to treat these children in the years to come, it would have been a good thing to encourage. But if the examination was to be the usual one, made by nurses, teachers or other technicians, then for once in our lives we thank the Christian Scientists for stopping the mockery of scientific medicine.

Minute Men of Medicine—What appears to be a worthwhile movement for the improvement of public health had its origin recently in Philadelphia. The movement consists essentially in the mobilization for epidemic and other medicine emergencies of the physicians of the city as associate health officers. By co-operation and co-ordinated action between the medical society and the city health officer, some thousands of the members of the county society now belong to the organization.

The health officer naturally feels more comfortable with the people protected against lack of medical service during any emergency. It is a striking situation for a health officer and executive officers of a county medical society to be provided with such a reserve army of health—each member always ready to answer the mobilization call.

Good as Far as It Goes—Under a subheading of, "Doctors Practicing Under Bogus Licenses are More Treacherous Than Bandits," the Palo Alto Times says editorially:

"May success attend the crusade launched in this State and elsewhere over the country to discover, expose, and discredit practitioners in medicine and other lines of healing who are practicing under licenses fraudulently secured. The highway bandit is not nearly so dangerous as grafters of this sort. The bandit's victims are fewer, for one thing. Moreover, they are conscious of the fact of being mistreated and robbed, whereas the deluded clients of the healing quack are lured through false promises, either expressed or implied, and place themselves completely at the disposal of a combination of ignorance and crookery.

"The most eminent and skilled physicians are ready to admit the limitation of their science. The quack, however, is usually known to make the most extravagant guarantees. Gullible individuals with no standards of personal judgment are found in large numbers being robbed of the money they pay over in fees for treatments supposed to represent wisdom and skill secured through adequate study and legitimate practice. The law must protect people against this sort of treachery, just as it must protect them against burglars and thugs."

This is as good as far as it goes, but it only scratches the surface. There are several licensing boards in this State, and under the law they **must** license persons inadequately educated or trained to practice the healing art. It is the license requirements fixed by law that are at fault.

Then, too, there is that largest group of all among quacks—those who do not even bother to secure the license that is too easy to get. If you wish to find these, look at the signs and advertisements.

The medical profession has introduced two bills into previous legislatures that would correct the whole situation: One, known as the Medical College bill, passed the Senate and died in a committee of the lower house unfriendly to scientific progress. The "Doctor" protection bill passed both houses of the last Legislature all but unanimously and was vetoed by the Governor.

Both bills will be introduced again.

Voluntary Health Insurance — The California and Hawaiian Mutual Benefit Association consisting of the employes of the California and Hawaiian Sugar Refining Corporation is undertaking, with the co-operation and assistance of the employers, to establish a mutual fund for the payment of wages lost during sickness.

The corporation carries, and will continue to carry, the expense of securing the benefits of the Industrial Accident law to all employes. This, however, does not take care of sickness not coming under the provisions of the accident law. The old employes' hospital association which has existed for some time among the employes will be merged with the new association.

There is a chance of much helpfulness growing out of voluntary organizations of this kind, but there are many more chances that it will be found to be impracticable. It takes more than a slogan to run a hospital, and it takes more money and better organization than has yet been provided to operate successfully an adequate and complete medical service under the name of a hospital association.

Recovery From Mental Sickness — Mr. Walter D. Wagner, director of State hospitals, according to press dispatches, announces, "Permanent recoveries are effected in the cases of 40 per cent of all patients sent to California's various institutions for the insane." It is further stated that these figures have been arrived at "following exhaustive investigation of conditions in the hospitals."

Forty per cent and any other per cent of cures is not enough, so long as well known and approved methods of treatment are not utilized. The percentage of cures can be further increased by removing many of the associated physical diseases so important both in causing and aggravating mental sickness.

Focal infections from bad teeth, tonsils, chronic inflammatory processes in other places; old ruptures; gall-bladders full of stones and inflamed; metabolism diseases; chronic heart, kidney and circulation disturbances, and many other conditions which undoubtedly exist, can be, and should be, diagnosed and ameliorated.

Scientific dietetic, good surgery and good medicine, including various forms of physical therapeutics, has markedly increased the cures in other places, and there is not the slightest question of doubt but what they would increase Mr. Wagner's percentage of cures most decidedly.

Of course, to do these things requires more laboratory, X-ray, medical, nursing, and other minimum requirements of **any** hospital for any class of patients anywhere, both to increase the accuracy of diagnosis and the quality of treatment, than is now part of the services of most state hospitals. But this cannot be had at a cost of 62 cents a day per patient. More money wisely spent will increase the number of "cured" patients—not cases—that will go back home to usefulness.

Three Aids — Under this headline the San Diego Tribune says editorially:

"Where stock swindlers rob men and women of

scanty savings, 'fake' medical practitioners rob them of something inestimably more important—health, happiness, peace of mind, and sometimes of life itself.

"The contemptible nature of the 'fake' healer is inherent in his business. The stock swindler appeals to human greed. The quack doctor preys upon pitiful and appealing human necessities. Ignorant people who are sick are vastly more helpless than intelligent people who are sick, and it is upon the helpless class that the diploma-mills and the irresponsible "doctors" depend for existence.

"The public is not without blame, both in the case of the swindler and that of the spurious 'doctor.' People who have sense enough to make use of banks and legitimate investment houses don't waste their savings with 'wildcat' concerns. People who have sense enough to investigate the healing agencies available to them can easily determine whom to trust —can easily learn which practitioners have built themselves up into professional competence through long study and successful practice, and which are merely fly-by-night money-grubbers.

"It is true, too, that the medical profession itself must come forward and help protect the ignorant against themselves. It is as important to prevent people from becoming the prey of irresponsible quacks as it is to prevent them from contracting avoidable diseases. Now as never before, the honest doctor must insist upon the very highest ideals within the profession, the very fairest, and most honest and most enlightened policies toward the general public. Part of the craze for irresponsible healing methods is due to public ignorance; but part of it—and this fact ought to be faced squarely—is due to outworn policies of secrecy and 'hokum' within the medical profession.

"Education of the public, education of the healing professions and rigid requirements under the law, will—all three together—do much to protect ignorant and ailing people from those who would make money from human suffering."

Mergers in Health and Welfare Agencies—"Mergers" in health agencies now have the center of the stage, very much as unmerging had a few years ago. We are a restless people who are continually making governmental changes in policies in this or that class of services because, whatever the plan in vogue, it is not successful. We continually refuse to recognize the fact that more serious, energetic work by government personnel, with more loyal support of effective agencies, is the important element in efficiency, but not necessarily in popularity.

There is no doubt in the mind of any thinking student but what overorganization, with too much organizational independence, classification of government agencies from the standpoint of political expediency, and the enactment of too many silly restrictive laws, are responsible for much government inefficiency in many fields. The health field probably heads the list, nationally by states and locally, in carrying political subdivisions of indivisible services to a ridiculous extreme.

Several legislatures are as usual battling with the ever-present problem of "merging" or "unmerging" their health services. Governor Smith of New York recently sent a special message to the legislature, which contains matter that should interest the people of all states. Among other things he said:

"The last Legislature was willing to place Raybrook Hospital under the Department of Health, but was unwilling to place the independent and unco-ordinated Hospital for Crippled and Deformed Children and the Institute for Malignant Diseases in the same department." . . . "I must again call your attention," the Governor continued, "to an important group of State activities which today are administered by a confusing, duplicating series of agencies—namely, those dealing with the welfare and institutional activities of the State. State welfare and institutional activities are hopelessly scattered and are subject to so many overlapping inspectional and supervisory agencies that when anything goes wrong it takes a special investigator, under the Moreland Act, several months to fix any measure of responsibility. Any planning of a positive, humane and forward-looking character is entirely impossible under present conditions."

The trouble with all these much-to-be-desired mergers of health agencies in whatever State they are undertaken is, that they are made from the standpoint of political expediency, usually by people who know political values, but little of service values. Some day, let us hope, some State will really merge its health agencies from the primary viewpoint of effectiveness of service by persons who know the various angles; and when this is done, other States will follow.

Trapping the Nerve-Impulse — Under this attractive catch-phrase title, Professor E. Newton Harvey of Princeton writes interestingly (Scribner's) about a subject not sufficiently studied by physicians or others. The story of facts and theory is so well told that only the advanced student of physiology will recognize where the one leaves off and the other begins. It is well worth any physician's time to review his neurology by a careful perusal of the article.

Red Cross Clinics in Marin County—It is reported that the Red Cross of Marin County will re-establish the pay dental clinic at 214 Fifth avenue, San Rafael.

"Well Baby" clinics are also scheduled for San Rafael, Larkspur, Corte Madera, Mill Valley, and Fairfax. Babies are weighed and measured and all sorts of free advice given to mothers about the care and feeding of their babies.

It is said that some income for the doctor in these clinics has been arranged for, but that both rich and poor will be prescribed for free.

Is Civilization Self-Destructive? — Most of us accept as a fact, and without question or further seeking of knowledge, the oft-repeated statement that civilization is advancing and that democracy in government and other activities is the outstanding basis of progress.

Some years ago (1910) a Canadian statesman caused quite a stir by defining democracy in government as interim government between monarchies, and otherwise challenged what we call progress as retrograde movement. He cited history to show that no democracy nor democratic civilization had ever lived more than a few hundred years; that these periods were wedged in between periods of more centralized government, and that but few countries had ever repeated the experiment of democracy.

The controversy caused at that time is being repeated over the charge of Mr. Wiggam (Strength, Philadelphia) that civilization as we understand and practice it is self-destructive. He quotes and endorses Stanley Hall's statement that "Man has not yet demonstrated that he can remain permanently civilized." He calls to mind the well-known fact that, in order to maintain a vigorous strain of large fine potatoes, they must be passed ever so often through periods of growth in difficult soil.

"Now, in their breeding qualities men and potatoes are exactly alike. Human beings in a state of savagery are in the same situation as the potatoes that were planted in hard, sterile soil. Every potato in such soil has to fight for its life. The weaklings never get above the ground, or if they do they are killed off. But in the rich soil all sorts of potatoes survive, and they also rear offspring. The strong are in time crossed with the weak. Thus weakness is spread. Feebleness and disease perpetuate themselves.

"Just so, when men are in savagery and barbarism they progress constantly in their physical, mental, and moral qualities. Barbarism is the only process by which men have ever progressed in their natural inborn strength of body and mind; and civilization is the only process by which mankind has ever grown

organically weaker. Civilization is thus the most dangerous enterprise upon which man has ever set out. In the days of his savage state, nature was looking day and night for the weak spot in every man's armor, and without mercy took her toll.

"But what happens when men become civilized? I can best answer this question in the words of Professor Karl Pearson, who said to the British Medical Association: 'You are enabling the deformed to live, the blind to see, the weakling to survive. In our institutions we provide for the deaf-mute, the blind, the cripple, and render it relatively easy for the degenerate to mate and leave their like. In the old days, the hand of nature fell heavily on the unfit. There were no doctors to enable them to limp through life, no charities to take their offspring or provide for their own necessities.

"'To the honor of the medical profession, to the credit of our social instincts, be it said, we have largely stopped all this. We have held out a helping hand to the weak; but at the same time we have, to a large extent, suspended the automatic action whereby a race progressed mentally and physically.

"'What will happen if, by increased medical skill and by increased State support and private charity, we enable the weaklings to survive and propagate their kind? Why, undoubtedly we shall have a weaker race.'

"We are anti-Burbanking the human race at every point."

PUBLIC HEALTH SUMMER INSTITUTES

The United States Public Health Service takes pleasure in announcing that, in response to an extensive demand for summer school work in public health, it has arranged with Columbia University, the University of California, the University of Michigan, and the University of Iowa to conduct public health summer schools this year.

The faculties of these various summer schools will include many leading "specialists" of the United States.

The tentative schedule of the courses to be given at the University of California, Berkeley, June 23 to August 2, is as follows:

Epidemiology; Clinics in Preventive Medicine; Elementary Bacteriology; Protozoology (lecture course); Protozoology (laboratory); General Biology; Public Health Laboratory; Public Health Administration Laboratory; The Health Center; Public Health Administration; Physiology (four courses); An Introduction to Psychology; Social Psychology; Problems of Social Mal-Adjustment; Medical and Psychological Problems (in Criminology); The Abnormal Mind; Mind and the Organism; History of Experimental Psychology; Mental Hygiene; The Elements of Nutrition; The Nutrition of Development; The Physiology of Nutrition; Seminar in Nutrition; Advanced Biochemistry; Child Hygiene; School Hygiene; Physical Education (thirty-four courses); Social Hygiene in Public Schools; Principles and Practice of Public Health Nursing; Home Care of the Sick; Health Education; Statistics; Control of Poverty; The Logic of Argument; Public Speaking.

For additional information address the Surgeon-General U. S. Public Health Service, Washington, D. C.

Faraday had but to will it to raise his income in 1832 to five thousand pounds a year. In 1836 the sum might have been doubled. Yet this son of a blacksmith, this journeyman bookbinder, with his proud and sensitive soul, rejecting the splendid opportunities open to him—refusing even to think them splendid in presence of his higher aims—cheerfully accepted from the Trinity House a pittance of two hundred pounds a year.

COUNTY NEWS

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary)—The monthly meeting of the Alameda County Medical Association was held at the Ethel Moore Memorial building, Monday evening, January 21, President Charles L. McVey in the chair; Clarence DePuy, acting secretary. Interesting patients and case histories were presented by Clifford Sweet, Clarence DePuy, Kate Gompertz, and J. L. Lohse.

The regular program was arranged by N. A. Cary.

Observations on the effect of posture in some types of low back pain.—H. H. Hitchcock. Discussion opened by Kate Gompertz.

Osteoarthritis.—F. J. Carlson. Discussion opened by George Rothganger.

Spastic paralysis. Operative and conservative methods of treatment.—O. P. Stowe. Discussion opened by Arthur Fibush.

Vasomotor lesions of the extremities. Demonstration of cases.—N. A. Cary. General discussion.

The president made an appeal to the members for the development of a closer fraternalism, and presentation of case histories and case reports previous to the regular evening's program. J. L. Lohse addressed the meeting briefly on the Doctors' Golf Association. All members of the association are invited to participate in future tournaments. Refreshments were served, and the usual sociability enjoyed.

The annual banquet was held Tuesday evening, February 5, at the Hotel Oakland. After a good repast and an enjoyable program of story-telling, vocal and instrumental music, W. W. Campbell, president of the University of California, the guest of honor, gave a most instructive and interesting address on "Where Do We Live?" illustrated with lantern slides. It was voted a delightful evening by all present.

The regular monthly meeting of the resident and visiting staff of the Alameda County Hospital was held Monday evening, February 4, at the Ethel Moore Memorial building. The program of the evening included:

Importance of Diagnosis in Oral Infection.—S. B. Fontaine.

Acid Base Balance in Metabolism.—H. Rogers. Discussion by Gertrude Moore and Q. O. Gilbert.

Case Reports—Adeno-Carcinoma of Colon with Perforation.—D. N. Richards.

Case of Laryngeal Diphtheria with Obstruction of Bronchi.—Q. O. Gilbert.

The Fabiola Hospital staff held its annual meeting at Fabiola Hospital, January 29. After disposing of the unfinished business of the preceding year, the election of officers for the ensuing year took place with the following result: E. G. Simons, chairman of the staff; H. D. Bell, vice-chairman, and Claire Rasor, secretary-treasurer. Owing to the amount of business and election of officers, there was no scientific program presented.

The Merritt Hospital staff meeting was held Monday, February 4, at Merritt Hospital, with President George Rothganger in the chair.

Tumors of the Breast.—W. E. Mitchell.

Discussion on the subject of "State Medicine."

After a general discussion of these subjects, light refreshments were served.

The staff of Providence Hospital held its annual meeting February 12. The following members were elected as officers for the ensuing year: President, O. D. Hamlin; vice-president, J. R. Fearn; secretary-treasurer, Frank S. Baxter; executive committee, G. G. Reinle, C. T. Devine, H. B. Mehrmann, H. W. Harding, E. H. Barbera, and N. A. Cary. Case reports were given by E. H. Barbera, W. B. Palamountain, C. A. Wills, and J. R. Fearn. This being

the annual meeting no regular scientific program was presented.

CONTRA COSTA COUNTY

Contra Costa County Medical Society (reported by L. St. John Hely, secretary)—The regular monthly meeting was held at the residence of C. R. Leech at Walnut Creek, Hall Vestal presiding. The minutes of the previous meeting were read and approved, notifying the society of the election of the officers for the present year.

Discussions were held in regard to insurance. Letters were read from the Fort Wayne and other insurance companies, the consensus of opinion being that the "Group Insurance" was in the nature of an experiment, and as insurance is a matter of life and death, we had better stay with the ship that carries us safely over.

Cases of stomach trouble in children were discussed by the members, discussion being opened by McKenzie.

Members present were: C. R. Leech, Hall Vestal, George McKenzie, F. L. Horne, E. C. Love, J. Edward Clark.

J. Emmet Clark and William A. Rowell were elected to membership.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—At the meeting held January 8, at the General Hospital of Fresno County, forty members were present.

Grant Selfridge of San Francisco gave a paper on "Cosmetic Surgery," which was illustrated by lantern slides.

H. E. Alderson, also of San Francisco, read a paper on "Occupational Dermatoses."

The following officers were elected for the ensuing year, and were duly installed: President, John D. Morgan; first vice-president, Paul S. Barrett; second vice-president, J. A. Montgomery; secretary, T. Floyd Bell; assistant secretary, Charles A. James; treasurer, United Bank and Trust Co.; board of governors, Frank Tillman; delegates, Guy Manson, J. R. Walker; alternates, Thomas F. Madden, L. R. Willson; board of censors, C. P. H. Kjaerbye, B. B. Lamkin, W. F. Stein; committee on ethics, J. L. Maupin, J. H. Pettis, A. B. McConnell; committee on program, A. H. Konigmacher, D. I. Aller, E. A. Larson.

The February meeting of the Fresno County Medical Society was held February 5 at the nurses' home of the General Hospital of Fresno County, with the following members present: Cross, Couey, Miller, Ingram, Stein, Wilson, Kjaerbye, Dixon, Jamgotchian, J. R. Walker, Wiese, Vanderburg, G. W. Walker, Sheldon, Montgomery, Lamkin, Webster, Weddle, C. A. Robinson, Ransom, Pettis, Scarboro, Ellsworth, Wheeler, Schottstaedt, Milholland, Broemser, Craycroft, Tillman, Bell, Morgan, Newton, C. D. Collins, Jorgensen, Wahrhaftig, Anderson, Aller, and Robbins.

Visitors present were H. O. Collins, director of the hospital; L. Seligman of Dinuba, and G. C. Nedry, recent arrival in Fresno.

The usual routine business was transacted.

A. B. Spalding, Professor of Obstetrics and Gynecology at the Stanford Medical School, presented a very interesting and instructive lecture on "Problems in the Repair of the Pelvic Floor." His lecture was illustrated throughout by lantern slides. He spoke of the anatomy of the pelvis, especially the muscles and fascia, and showed how damage was done to these structures and means of preventing such damage. He also dwelt upon the operative repair, especially emphasizing the use of the pelvic fascia.

S. M. Long was unanimously elected a member of the society.

General Hospital of Fresno County—A. C. Spalding was the guest of the staff of the hospital at luncheon February 5, and gave a very interesting and practical talk on "Eclampsia," dealing with various phases of the subject, but especially the treatment and particularly the non-surgical treatment.

On Tuesday evening, February 12, the staff of the hospital will hold its annual dinner and meeting at the California Hotel.

GLENN COUNTY

Glenn County Medical Society (reported by C. L. Terrill, secretary—The Glenn County Medical Society met at the Willows Sanitorium January 22, and elected the following officers for 1924: J. D. Edmundson of Orland, president; C. L. Terrill, secretary.

KERN COUNTY

Kern County Medical Society (reported by William H. Moore, secretary)—The regular meeting of the society was held at the Petroleum Club, Taft, January 15. The West Side branch of the society were hosts, and had prepared an entertaining program.

M. W. Pascoe was toastmaster at a very excellent dinner. The principal speaker of the evening was Granville MacGowan of Los Angeles, who spoke on "Skin Diseases," emphasizing careful observation for diagnosis and treatment. Charles L. Hawkins of Taft presented a clinic in kidney disturbances. He showed numerous interesting pyelograms. William Duffield of Los Angeles was a guest and proved an eloquent speaker.

Members present: H. W. Hawkins, Charles Hawkins, D. E. Edgerton, Homer Rogers, M. W. Pascoe, P. T. Page, T. M. McNamara, C. S. Compton, L. W. Ellis, O. W. Young, Joe K. Smith, Keith S. McKee, A. R. Moodie, F. A. Hamlin, F. J. Gundry, C. W. Kellogg, P. J. Cuneo, C. A. Morris, F. G. Linde, W H. Moore, E. A. Shafer.

LOS ANGELES COUNTY

Hollywood Hospital Stock Changed to Non-Dividend Basis—All friends of good hospital service will read with pleasure that the Hollywood Hospital Corporation has changed their organization to a non-dividend-paying basis. It will be remembered that the Hospital Betterment Service urged an organization of this class when the proposition first began to take shape.

Hollywood needs a good hospital, and some of the physicians and other good citizens deserve commendation for their persistence in making progress, in spite of many difficulties.

MERCED COUNTY

Merced County Medical Society (reported by Brett Davis, secretary)—The January meeting of the Merced County Medical Society was held January 17 at the office of the secretary. Members present: W. C. Catton, Brett Davis, J. L. Mudd, E. R. Fountain, J. L. McDaniel, and A. S. Parker. Visitors: F. W. Yocom of Livingston, C. F. Harrar, a newcomer in Merced; J. D. Dameron of Stockton, and J. C. Robertson of Modesto.

The society officers of 1923 were re-elected to serve during 1924, and F. W. Yocom, who joined the society, expecting to get a dimit from San Francisco County Medical Society, was elected delegate to the State society with J. L. Mudd as alternate. Claude Henry Church of Yosemite was also elected a member of the society, subject to approval by the State society officials.

Dameron then read a paper on "Private Hospital Management." Robertson talked on the same subject, and a general discussion by all present followed.

An epidemic of measles has been prevalent in and near Merced.

B. H. Bush is now a patient in the Burnett Sanitarium, Fresno, with laryngeal diphtheria.

MARIN COUNTY

Marin County Medical Society (reported by J. H. Kuser, secretary)—Clark, Dufficy, De Lancey, Hund,

Howitt, W. F. Jones, Kuser, Landrock, Larson, Mays, Newman, and Stanley were present at the January meeting, which was called to order by the newly elected president, R. G. Dufficy. The other officers are: Vice-president, Landrock; secretary and treasurer, J. H. Kuser; trustees, Larson, De Lancey, and Mays.

Mr. Gallagher of the Aetna Insurance Co. addressed the meeting on group insurance. The committee on the hospital reported the necessity for a new modern hospital of at least sixty beds. A committee was appointed to interest the residents of the county in financing the project.

Hospital Resolution

"Whereas, The city of San Rafael and county of Marin has hospital facilities inadequate and unsatisfactory for present and future needs, and

"Whereas, There is a definite requirement for better hospital care available to the citizens of the community, and

"Whereas, The establishment of a suitable hospital would be a valuable asset to the city and surrounding country, and

"Whereas, Such a proposed hospital would not only aid in the growth of the city, but would tend to conserve the health of the citizens, be it, therefore,

"Resolved, That the Marin County Medical Society sponsor such a proposed adequate hospital, and is ready and willing to help in any way; be it further

"Resolved, That a hospital building committee be appointed by the president of the Marin County Medical Society, with the sanction of its members, to devise ways and means to promote such a hospital; and it is further

"Recommended to have a committee of twelve citizens who have the general interest at heart to talk up this proposition and also submit a number of names of citizens to confer with said committee."

A motion was passed requesting our representatives in Congress to use their efforts to reduce the narcotic tax. The war being over, it was considered a rank injustice to tax the medical man in order to enable him to relieve pain.

MODOC COUNTY

Babies All Right Now—Under this heading, the Cedarville Record says editorially:

"Well, the babies of Surprise Valley and Modoc County ain't agoin' to have any more sickness now, because Dr. ——— was around last week and told the babies all about how to tell their mothers when they didn't feel well. Miss ———, supervisor of nurses, also came along, probably to nurse the doctor. Miss ——— was also in the party to tell the kiddies when they had the toothache. We don't know why Mrs. ——— came along, unless it afforded her an excuse to draw her salary. Their visit here was highly gratifying to the taxpayers, as it makes a big dent in the tax budget. The taxpayers are, of course, tickled plumb to death to have the ladies visit the county, as it resulted in so much good being done—especially in providing them with a pleasant junketing trip."

The editor is wrong in thinking that local and State taxpayers pay all this bill. Under the Sheppard-Towner law our beneficent Washington government pays half back to the State. Of that Washington money, some was also collected locally.

President Coolidge has announced his unequivocal opposition to Federal subsidies to State governments, and so we don't have any expansion of this particular fad for at least two more years.

PLACER COUNTY

Placer County Medical Society (reported by Robert A. Peers, secretary)—The society held its regular meeting at the Placer County Hospital in Auburn on the evening of February 9, President Miner presiding. The following members were present: H. N. Miner, C. J. Durand, R. J. Nicholls, G. H. Fay, H. N. Kanner, R. A. Peers, J. A. Russell, J. G. Mackay, F. L. Fanning, L. B. Barnes, F. E. McCullough

Visitors: Richard W. Harvey, Ernest H. Falconer, Cyril E. Lewis.

Fred Harrison of Georgetown and Cyril E. Lewis of Auburn were elected members of the society.

Dr. Mackay, chairman of the Committee on Fee Schedule, made his report. The final decision on the report was withheld until the matter could be further discussed at the next meeting.

The literary program of the evening consisted of two very interesting addresses, which were quite generally discussed. Richard W. Harvey of San Francisco gave an address on the "Personality of the Patient." Ernest H. Falconer, also of San Francisco, discussed the significance of blood pressure.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement (reported by G. J. Hall, secretary)—At the January meeting of the society, G. N. Drysdale, the newly elected president, presided. Wallace R. Briggs read a paper on "The Pathology of the Eye in Relation to General Pathology." Interest in the subject was enhanced by the use of original lantern slides and beautifully prepared sections of the eye, showing pathological conditions.

The society is having its programs presented by the local members, and finds this a very excellent plan. It has been definitely proved that with the clinical material available the Sacramento physicians are writing and presenting papers and discussions on a par with those that were presented by other plans. During the last few years there has been frequent discussion, in an effort to determine the advisability of inviting speakers from other centers or urging local men to present their ideas in discussions. After having tried both plans for several years, the directors have definitely established the policy of having all papers presented by local physicians, with the exception of the paper at the annual banquet. And also, of course, we will gladly urge the acceptance of an invitation to speak here by any physician from any place who has some special work to report that would be of general interest. The society feels that Sacramento is very rapidly being recognized as a medical center, and that this recognition is justly deserved.

In reference to the post-graduate clinic plan proposed by the State Association, the Sacramento Society does not feel any need for such work here, and as a consequence has voted to answer the question in the main negatively. The reason for this action is in accord with the plan referred to above, and not an expression of sentiment against a plan that obviously will probably be very valuable to smaller societies.

Our annual meeting and banquet will again be held, as always before, on March 17, that being the date of the first meeting of this the oldest medical society now existing in the State.

SAN BERNARDINO COUNTY

San Bernardino Medical Society (reported by E. J. Eytinge, secretary)—The society met February 5 at San Bernardino County Hospital, with fifteen members present, sixty-six absent, and thirty-five guests.

Nelson W. Janney of Los Angeles presented what, he said, has proved to be rather a practical adaptation of the insulin treatment of diabetes. The talk was illustrated by lantern slides, as the society now has a Spencer delinearscope, and is prepared to show slides, cards, photographs, and small objects at its meetings.

Phillip J. Tunnell of Loma Linda was elected to membership.

SAN DIEGO COUNTY

San Diego County Notes (reported by Robert Pollock)—The new La Jolla hospital, a modern fireproof structure of fifty beds, is rapidly assuming an outline on the Prospect avenue skyline. Situated in this delightful suburb with its outlook on the Pacific, this hospital will furnish a most attractive place

for the treatment of nervous and chronic, as well as post-operative cases. However, it will be adequately equipped in every way, containing a modern operating room, X-ray and clinical laboratories, diet kitchen, sun parlors, and the best of nursing service. Attached to it by covered corridors will be a well-planned metabolic clinic and hospital of fifteen beds, bringing the total capacity of the two buildings to about sixty-five beds. The metabolic department will have its own director—applications for which position are now in order—who will be allowed opportunity for and will be encouraged to do research work along metabolic lines. No movement better calculated to arrest the attention of those who watch closely the development of the times has been started in Southern California in recent years.

The County Medical Society went to Camp Kearney Hospital Tuesday, February 12, to participate in an intensive study of the problems involved in the treatment of tuberculosis. Papers were presented by members of the medical staff of the hospital as follows:

"Tuberculin Therapy." D. O. N. Lindberg.
"Helio Therapy." Bryant R. Simpson.
"Artificial Pneumothorax." W. A. Cashion.
"Tuberculosis of Larynx." John H. Mallery.

After general discussion of these papers, a luncheon and smoker was enjoyed through the hospitality of the medical commandant and his staff.

G. R. Stevenson, M. D., has recently been appointed by the county supervisors to the office made vacant by the death of O. G. Wicherski. This appointment of county physician and medical director of the San Diego County General Hospital meets with the approval of the County Medical Society and the community at large. A splendid field is here offered for the expression of those professional, executive, and social qualities of which Stevenson has shown himself to be possessed.

Sheppard-Towner Clinic for Escondido — The Sheppard-Towner law enforcement machinery is starting a baby clinic in Escondido, according to press dispatches. Mrs. Rose Crise is chairman of the standing committee that will conduct the clinic.

SAN FRANCISCO COUNTY

Eye, Ear, Nose, and Throat Section of the San Francisco County Medical Society (F. C. Cordes, secretary)—At the meeting of January 22, Kaspar Pischel gave an extract of Karl Hamburger's paper, "Experimental Glaucoma Therapy." Hamburger injected synthetic suprarenin sub-conjunctivally near the cornea as much as ½ cc. A few minutes afterward the pupil dilates to extreme mydriasis; synechiae which withstood action of atropin are sometimes torn.

This observation induced Pischel to add to the atropin cocain sub-conjunctival injections in cases of stubborn iritis an equal amount of adrenalin, with good results. The intraocular tension is reduced by adrenalin injections considerably from 20 to 50 mm., and even the other not injected eye often becomes softer. The healthy eye sometimes becomes soft (10 to even 6 mm.). In the chronic glaucomatous eyes, pressure went down 20 to 50 mm.; even the other not injected eye often becomes softer. Several cases in which eserin had had no effect, after the suprarenin injections, reacted promptly on eserin. Hamburger's explanation is: "Glaucoma is caused by atony of the blood vessels, on account of the atony of the sympathetic nerve. Therefore, he says, the uveal corpus cavernosum is filled with blood and increases the pressure in the interior of the eye. The essentials of the therapy of glaucoma consist in stimulating the sympathetic nerve and thus stimulate the vascular tonus."

Doctor Pischel tried adrenalin injections in a few cases; the dilatation of the pupils was quite striking; the lowering of the pressure was not uniform. He asked the members to try it and report their experiences.

Charles Edward Locke Jr. presented a paper on "Three Cases Pulsating Exophthalmos or Intracranial Arterio-Venous Communication"—Three cases which had had unilateral pulsating exophthalmos were presented. One of these patients had been treated only by simple digital compression of the carotid, the second by digital compression and ligation of the internal carotid artery, and the third by digital compression and by both ligation of the internal carotid artery and the orbital veins. The first patient responded quickly to compression of the carotid and now, three years later, shows nothing except slight enlargement of scleral and episcleral vessels and atrophy of the disc on the affected side. The second case did not improve under digital compression of carotid, but did show marked improvement after Locke ligated the internal carotid. The exophthalmos decreased, the bruit ceased, and the extra ocular muscles palsies became much less marked. The third patient's became worse during the preliminary course of digital compression, but ligation of the internal carotid decreased the exophthalmos, and relieved entirely the diplopia and strabismus. Later, however, a marked pulsating swelling appeared above the inner angle of the eye. Locke and Cordes performed a ligation of the superior ophthalmic vein and its branches. This did away with the pulsating swelling; but some months later the veins of the temporal region became engorged and tortuous. There still remains a certain degree of exophthalmos. In reviewing the literature, Locke concluded that digital compression of the carotid should be used always as the initial therapeutic procedure. If unsuccessful, internal carotid ligation should then be used. Since de Schweinitz and Holloway's analysis of the 313 cases in the literature up to 1907, Locke was able to collect 285 additional cases, making a total of 598. The pathology of the condition is usually arterio-venous communication between the internal carotid artery and cavernous sinus. Less often simple aneurism of either the internal carotid or ophthalmic artery, or tumor of the orbit is the cause.

Discussion—Otto Barkan—The visual field defect in one of Locke's cases shows that the line of fracture must have involved the bony optic canal. In the optic canal, the periosteum constitutes the sheath of the optic nerve. The septa of the optic nerve are formed by extensions from the periosteum: thus the fracture of the bone and consequent laceration of its periosteum in this situation frequently involves a laceration of the substance of the optic nerve with hemorrhage and edema and consequent segment defect in the visual field as is seen in this case.

E. B. Towne presented a paper on "The Value of Positive Signs in the Localization of Brain Tumors." The improved results in the field of neurological surgery, though partly due to the technical proficiency of the operator who is accustomed to this work, are to be largely attributed to the fact that every effort is now made to diagnose and localize tumors in an early stage. With the lesion accurately localized, extirpation of Roentgen ray therapy, depending on the situation and on the pathological character of the tumor, may be undertaken. Nothing can displace the usual methods of diagnosis—careful history, neurological examination, eye and ear examinations, and Roentgen rays of the skull—as a basis of diagnosis. But a considerable proportion of tumors cannot be accurately placed without further evidence, and we have other methods which are of value. These factors may be taken up under four headings, with illustrative case reports and lantern slides. In each case the practical diagnostic value of the various findings will be discussed, with special reference to the facts contributed by examination of the eyes, nose, and ear. (1) Roentgen-ray demonstration of calcification in brain tumors is a positive and conclusive finding. Newell found that 40 per cent of the verified brain tumors examined by the department of roentgenology at Stanford University Hospital during 1922 were visualized and accurately localized by the skull films. One patient, who had a calcified glioma of the

frontal lobe, gave entirely negative findings otherwise. (2) Proliferation of the skull over meningeal tumors (dural endotheliomas) is a positive and conclusive finding, which is of especial importance when these tumors, as frequently happens, compress a frontal lobe. (3) Changes in the percussion note of the skull (McEwen's sign), is a corroborative finding which requires confirmation by other localizing signs. (4) Cerebral pneumograms (Dandy) mark the greatest advance of recent years. Deformity of the air-filled ventricles gives positive localization of the lesion. The danger has probably been overestimated; there have been no bad results in the Stanford Clinic. Cases were reported in which the pneumograms showed the situation of the tumor. This is to be considered the final and certain method, to be used when all other means fail.

Discussions — Howard Naffziger — I agree with Towne, in regard to the superiority of quantitative perimetry with 1 mm. discs as compared to other methods. I would like to ask a question of the ophthalmologists present in regard to two cases of probable cerebrallar tumor with choked discs of six diopters I have recently seen. Decompression was done in each, resulting in reduction of the swelling of the discs and appearance of slight atrophy. After one and a half years, intracranial pressure was again much increased, but with very little associated edema or choking of the discs. I wonder has this been observed before and might it be explained by blocking of the lymph channels as result of the first choking? I have received a great deal of benefit from otological examination in two cases that I recall. Ventriculograms are of great aid. We have had no fatalities from the method as yet, and only one or two moderately severe reactions. In regard to calcifications, and with due regard to the improved X-ray technique and the excellent work of Chamberlain and Newell, I do not feel that 40 per cent could show calcification. Many calcifications, possibly the result of old infective processes, cannot be interpreted as meaning brain tumor.

Doctor Newell—I would like to lay stress upon the importance of ocular findings. Although some are not localizing, just as in X-ray scalloping of the skull or erosion of the sella may not be localizing, other eye-signs are distinctly localizing and have their counterparts in X-ray findings such as destruction of the floor of the sella or calcifications. I agree with Naffziger that the series of 40 per cent calcifications is extraordinary and cannot be expected to be repeated; there happens to be a large proportion of calcified gliomata in this series. X-ray localization of the tumor is disappointing on the whole. Yet one or two cases with absolutely no other findings except convulsions in which X-ray showed tumor due to the accident that it was calcified make one feel the importance of X-ray study of the suspected tumor.

Walter Schaller — A choked disc is an indirect symptom most frequent in brain tumor, and this makes the responsibility of the eyeman a very great one. I have seen a number of examples of choked discs going on to blindness without having had the benefit of these modern methods of diagnosis. I have seen such cases ascribed to sinus disease. Any case which is not frankly due to a sinus should have the benefit of these tests. I should like to ask of the ophthalmologists whether it is possible to differentiate between a toxic optic neuritis and a papilloedema due to brain tumor by mere inspection. Without the benefit of careful perimetric examination and neurological examination, I believe one cannot differentiate between the two.

Kaspar Pischel—I would not venture to make a differential diagnosis from the ophthalmoscopic appearance alone. I recall from my own experiences cases of pronounced papillitis caused by albuminuria, while I have fresh in my mind a case of brain tumor who showed when first seen by me only a haziness of the outlines of the disc.

Southern Pacific Hospital — The monthly staff meeting of the Southern Pacific General Hospital was held on Wednesday, February 6, at 8:30 p. m.

Program—"My Lady Gout," J. Wilson Shiels; Informal Talks by D. A. Beattie (San Jose), M. W. Brown and W. O. Smith (Alameda) and A. H. McFarlane (Mountain View), Company district surgeons; Report of a Case of Myelogenous Leukemia, Philip King Brown; Report of Two Cases of Lymphogenous Leukemia, W. T. Cummins; Roentgen Demonstration, L. B. Crow.

St. Joseph's Hospital Staff Meetings—St. Joseph's Hospital staff, San Francisco, on February 13 concluded "Modern Treatment of Syphilis" by having physicians point out particulars of the subject in their respective lines.

Ludwig A. Emge stated that proper treatment prevents many of the remote effects of syphilis, including ectopic pregnancy. The new conception of heredity permits the mother to nurse her baby. Wassermann reaction in the new-born is unreliable until after twenty days. Placental diagnosis, though difficult, is better. X-ray of foetus is useful where autopsy is refused. Neosalvarsan and mercurial rubs, with appropriate rests, are best in pregnant mothers and result in the birth of three-fourths of the babies, as against one-fourth where no treatment had been given.

M. L. Cohn considers mercury and arsenic most important when treating hereditary syphilis. Infants under one year should be given inunctions and mercurial injections. After the first year, calomel and chalk powder, according to weight, 1 per cent bichloride injections with massage of site, are used. Eight weekly mercurial injections, followed by eight weekly arsphenamine injections, are used. Injection into the longitudinal sinus is resorted to in infants under one year, if necessary. Intramuscular injections of arsphenamine are not advised. Iodides and the bismuth preparations are not used.

J. M. Wolfsohn spoke on neurosyphilitic therapy, which may be necessary even nine months after the primary lesion. There may be arterial, meningitic or parenchymatous lesions, only the first existing alone, although all occur in combination. Tabes is most common and is treated systemically, like any other lesion. Inunctions with oleate of mercury or blue ointment, thirty-six rubs of a dram each, followed by benzin washing, is used. After the first week, start with neoarsphenamine. Watch the kidneys. If patient cannot stand Hg or As, try the bismuth preparations. Hectine "A," "B" and "C" hectargyre can also be used and will cure, especially early cases. The Burn's method of injecting mercurialized serum intraspinally is used only where there are lancinating pains. Dercum's spinal drainage and intravenous salvarsan is best in other cases. Regenerative educational movements are useful. Give three courses of treatment a year and treat three years. In general paralysis of the insane, start with only .10 of neosalvarsan; in five days .15 and repeat and increase gradually. Salicylate of Hg and calomel injections cause pain. K I is useful in arterial lesions (thrombosis and embolism)—not in parenchymatous or tabetic cases. In G. P. I. use in small amounts, gtts. XX t. i. d. Be careful of the teeth in all cases.

Election of officers for 1924 resulted in the reelection of A. S. Musante as head of staff; Frank Lowe as vice-president; Louis Overstreet as secretary; R. F. Grant as financial secretary; F. C. Keck as treasurer, and William Quinn, W. T. Cummins, L. B. Crow, P. Collischonn, C. E. French, T. J. Janes, J. M. Stowell, and D. E. Stafford as executive board.

The program for March 12 will consist in "Medical Improvements Noted in the Old World," by Alex Keenan, and "X-ray as an Aid to Early Diagnosis," by F. H. Rodenbaugh.

The Franklin Hospital Staff met on February 4, 1924, Otto Westerfeld presiding.

The officers elected for the ensuing year are as follows: Chairman, J. Wilson Shiels; vice-chairman, W. H. Heinzman; secretary, Ewald H. Angerman.

J. Wilson Shiels read an interesting paper on "Gout," and Harry E. Alderson gave a talk on "Oc-

cupational Skin Diseases" to an appreciative audience.

The popularity of the morning clinics prompted a number of those present to pledge their aid in furthering this work by showing their unusual or timely cases.

S. J. Hunkin conducted the morning clinic on February 4, 1924, and presented several instructive orthopedic cases.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by Alex C. Soper Jr.,secretary)—Meeting called to order Monday, February 11, at the Cottage Hospital, President Robinson in the chair. Present: Twenty-one members, four internes, and the following guests: Mr. Curtis, superintendent of the hospital; Dr. Blatherwick of the metabolism wing; Dr. Allen, president of the dental society.

Irving Wills and W. H. Eaton were unanimously elected to membership.

Moved, seconded, and passed with one dissenting vote that the dues of the society for 1924 be $12.

Correspondence from the U. S. Veterans' Bureau in re the proper reports on cases of ex-service men ill reportable diseases, and from Mr. J. C. Thorpe, in re mechanical therapy, read.

Hill Hastings, M. D., of Los Angeles gave a very interesting talk on "The Tonsils as a Source of Joint Infection, with Subsequent Reports from One Hundred Patients." Discussion was lengthy and thorough, and participated in by Allen Williams, Nuzum, Profant, Means, Mellinger, Allen, Stevens, and Brush.

SANTA CLARA COUNTY

Medical Luncheon Club (reported by George L. B. Barry)—The Santa Clara County Medical Luncheon Club recently held its semi-annual election of officers. Alson A. Shufelt was elected president; P. A. Jordan, vice-president; and George Long Barry, secretary-treasurer.

The club includes in its membership only those doctors who are members of the County Medical Society. Meetings are held every Friday at noon, at which time a program consisting of a speaker from out of town or from within the club is heard. Many local, as well as general, subjects of medical interest are reviewed. It has been the pleasure of the club recently to hear from several of its members who have been abroad or East; also from two local attorneys at law—attorney Ernest E. Williams, on a medico-legal subject, and attorney Edwin A. Wilcox, on his recent visit through Spain.

J. I. Beattie and Doxey Wilson recently returned from an Eastern trip, and each discussed the work being accomplished at Chicago and Rochester medical centers.

Jay C. Elder, George Hall, L. M. Rose, and Donald Davy have recently returned from European medical centers and spoke about their personal experiences, each having gone to a different clinic.

H. C. Brown, city health officer, reviewed the milk situation and said that San Jose's milk supply was scoring high and ranking first as to quality among the cities in California.

At a round-table discussion of interesting patients, John Hunt Shephard elucidated the technique of the operation for the removal of thyro-glossal duct cyst. Bert E. Lochr reported a case of malignancy of the uterus treated with X-ray, but followed by multiple metastatic nodules of the skin. D. E. Tiffany discussed a case of frontal sinusitis with medical treatment. An unusual instance of multiple subperiosteal abscesses was reported by Fred S. Ryan. Cultures made by F. Proescher in the San Jose Hospital laboratory have repeatedly shown a pure growth of trichomycete.

Los Gatos has Diphtheria Clinic—The Board of Trustees of Los Gatos grammar school offers to the pupils free treatment in the prevention of diphtheria. Parents of the school children have been circularized and asked to give their consent to have the toxin-antitoxin immunization given.

California Medical Association

Abstract of the Minutes of the 142nd Meeting of the Council of the California Medical Association—Held in Los Angeles Biltmore, Los Angeles, Calif., January 26, 1924. Present: Edwards, MacGowan, Parkinson, Carrington, Kiger, Stover, De Lappe, Beattie, Bine, Kress, McArthur, Curtiss, Emma W. Pope, and General Counsel Peart. Absent: Strietmann, Coffey, Ewer, McLeod, Hamlin, and Saxton Pope.

Seal: Whereas, The name of this society was changed on the adoption of the amended constitution by the House of Delegates at the annual meeting held at San Francisco, June, 1923, from "Medical Society of the State of California" to "California Medical Association"; and

Whereas, The seal of the society is now inscribed as follows: "The Medical Society of the State of California, 1856 and 1902"; now, therefore, be it

Resolved, That the inscription on the seal of this association be amended and changed to read "California Medical Association, 1856 and 1902."

Appointment of Indemnity Defense Fund Trustee—William Ellery Briggs of Sacramento, whose term as trustee of the Indemnity Defense Fund expired January 1, 1924, was elected to succeed himself for the ensuing three years.

Bank Accounts of Indemnity Defense Fund—The following resolution was unanimously passed:

Whereas, The name of the society was changed by amendment of its constitution at the annual meeting of the House of Delegates held at San Francisco, June, 1923, from "Medical Society of the State of California" to "California Medical Association"; and whereas, certain moneys of the Indemnity Defense Fund are on deposit in various banks, and the Board of Trustees thereof is named in said accounts and otherwise as "The Board of Trustees of the Indemnity Defense Fund of the Medical Society of the State of California"; now, therefore, be it

Resolved, That the title of the said board and of the said bank accounts, wherever same appear, be changed to read and appear as "The Board of Trustees of the Indemnity Defense Fund of the California Medical Association."

Model Constitution and By-Laws for County Medical Societies—The general counsel submitted the Constitution and By-Laws of the San Francisco County Medical Society, stating that this constitution was prepared to meet the particular needs of that county society, but that he believed it might serve as a model form for other county societies.

After discussion, it was the sense of the council that a copy of the Constitution and By-Laws of the San Francisco County Medical Society be furnished each member of the council for his consideration; and that the question be placed on the docket for the next council meeting as to the desirability of approving such constitution and offering it to county societies as a model form.

Professional License Tax—Resolved, That a committee of three be appointed by the Chair to take up the matter of professional license tax in conjunction with the committee of the American Society of Civil Engineers or any other agencies.

Bulpit vs. Fullerton Ordinances—The secretary read correspondence just received from the secretary of the Orange County Medical Society regarding the charges preferred against J. Muncey Bulpit of Santa Ana for practicing in the town of Fullerton without a license, although licensed to practice in the State of California and answering an emergency call at the time of his arrest. The question of municipal license tax was then discussed by all present.

Action by the Council—Resolved, That the gen-

eral counsel be empowered to take up, investigate and defend, if necessary, the case of Dr. Bulpit vs. the town of Fullerton.

Physicians' Income Tax—Wire sent by the chairman of the council to the A. M. A. regarding income tax and reply thereto were read, and the present ruling whereby convention expenses are not deductible from physicians' income taxes, together with the possibility of securing a reversal of such ruling was thoroughly discussed.

Action by the Council—Resolved, That letter be written to all senators and representatives in California regarding the re-establishment of the ruling exempting physicians' traveling expenses to medical conventions from their income tax; and that it is the sense of the council that such expenses are deductible by members of the association.

Tax on Earned Incomes—The general counsel discussed the present tax on earned incomes, and recommended that the A. M. A. be requested to circularize all State societies regarding a tax reduction on earned incomes as against unearned incomes.

Action by the Council—Resolved, That the A. M. A. be requested to take up the question of a tax reduction on earned incomes as against unearned incomes with all State units and all other professional groups, with a view to making this national action; and that all California physicians be requested to get in touch with all California senators and representatives.

Gorgas Memorial — The secretary read a letter from Franklin Martin, chairman of the board of directors of the Gorgas Memorial, requesting the secretary to accept membership on the State governing committee and subscribe $100 to the Endowment Fund as such a member; this money to be used for advertising purposes only.

Action by the Council — Resolved, That the communication be received and placed on file; that the editor be instructed to furnish the necessary publicity in the form of an editorial in the Journal; and that the whole question be laid on the table.

Question of Dividing United States into Territorial Districts—The secretary read the report of the Committee on the Division of the United States into Territorial Districts and also extracts from the minutes of the House of Delegates of A. M. A. as adopted in June, 1923, which states that this plan is neither desirable nor feasible.

Action by the Council—It was the sense of the council that no action be taken at this time; and that the committee be discharged, with thanks.

Woman's Auxiliary — The secretary read a letter from ex-President Brainerd embodying the report of his personal representatives to the annual meeting of the Woman's Auxiliary of the A. M. A.

Action by the Council—The communication was received and placed on file.

Bunnell Memorial — The secretary read a report from the committee on the Bunnell Memorial. It was the sense of the council that the report be received and placed on file, and the committee be requested to furnish further data to the council.

Keene Committee—Report of the committee appointed to investigate the condition of the grave of the first president of the Society, J. B. Keene, was read and considered.

Action by the Council—Resolved, That the committee's report be accepted with the understanding that the work shall be properly done for a sum not to exceed $175; and that the matter of inscription be referred to the chairman with power to act; and that the committee report back to the council.

Drug Addiction — The secretary presented a request from the Bureau of Drug Addiction for the co-operation of the California Medical Association, together with a report from the League for the Conservation of Public Health on the same subject, which was fully considered by the council.

Action by the Council—Resolved, That the council having heard the report from the League for the Conservation of Public Health, the communication from the Bureau of Drug Addiction be received and placed on file.

Audits for 1923—The secretary read audits of the accounts of the association and the fund as prepared by Lester Herrick and Herrick, public accountants, for the year 1923.

Action by the Council—Resolved, That the reports of the auditors, Lester Herrick and Herrick be received and placed on file.

Recommendation of Physicians—Question of policy, with reference to the compilation of an alphabetical list of all members of the association by specialties, was considered and thoroughly discussed, inasmuch as many requests are received by the State office for such information.

Action by the Council—Resolved, That, when an inquiry comes into the State office for a physician or surgeon in any particular specialty, the secretary refer those requesting such information to the proper officials of the county society where the services are to be rendered; and that the county society be notified of such inquiry. Dr. Bine voted "No," and desired his vote so recorded.

Tentative Program for 1924 Meeting—The secretary presented a tentative program for the 1924 meeting commencing with a council meeting on Sunday evening, May 11, and continuing through Thursday, May 15.

Action by the Council—Resolved, That the program, as presented by the Committee on Scientific Program, be adopted.

Graduate Work for Physicians in General Practice—Progress report from the committee on graduate instruction for physicians in general practice was read and considered.

Action by the Council—Resolved, That the partial report of the committee on graduate instruction for physicians in general practice be received; and that the chairman of the committee be instructed that, if any county society desires to hold a meeting along the lines of their report, they be allowed to do so; and that the committee report back to the council.

Optional Medical Defense — The general counsel presented a revised form of announcement of "Optional Medical Defense," as requested by the council.

Action by the Council—Resolved, That the form and contents of the anouncement of Optional Medical Defense as this day submitted to the council by the legal department be and the same is hereby approved; and that a copy of such announcement be mailed to each member of the association; and that such other notice thereof be given as the executive committee may determine.

Commercial Exhibits—The question of commercial exhibits for the 1924 meeting was brought up and discussed, in view of a request for definite instructions from William Duffield, chairman of the committee on commercial exhibits.

Action by the Council—Resolved, That William Duffield be instructed that commercial exhibits at the 1924 State meeting shall comprise only such articles as are approved by the Council on Pharmacy and Chemistry of the A. M. A., or that are of strictly ethical character.

Change in Name of Journal—Resolved, That the editor be requested to change the title of the association's Journal at such time as he thinks appropriate to conform with the present name of the association.

Illness of ex-President Brainerd — Dr. McArthur advised the council of the serious illness of ex-President H. G. Brainerd.

Action by the Council—On motion of McArthur, seconded by Kiger, the council, having heard with regret of the serious illness of former President H. G. Brainerd, extends its sympathy and hope for his speedy recovery.

Publicity for the 1924 State Meeting—The question of publicity for the 1924 State meeting was considered.

Action by the Council—On motion of Kress, seconded by De Lappe, it was the sense of the council that Mr. Celestine J. Sullivan of San Francisco, ex-

ecutive secretary of the League for the Conservation of Public Health, be requested to take charge of publicity matters in connection with the annual meeting of the association.

Industrial Medicine—All members of the council discussed the various problems and points brought out at the open meeting held in the evening, to which meeting all members interested in industrial medicine and surgery were invited.

Action by the Council—Resolved, That the various matters under discussion at the open meeting, together with those matters included in correspondence before the council, be embodied in the form of specific queries and submitted to every member of the Industrial Medicine and Surgery Section of the State Association, with a request for recommendation and suggestions; and further that this questionnaire be submitted to the executive committee for approval before transmittal of said section.

Utah State Medical Association

J. R. MORRELL, M. D., Ogden - - President
WILLIAM L. RICH, M. D., Salt Lake - Secretary
W. R. CALDERWOOD, M. D., Associate Editor for Utah

Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—A regular meeting of the Salt Lake County Medical Society was held at the Commercial Club, Salt Lake City, Monday evening, January 28, 1924, with sixty-seven members and seven visitors present; President A. A. Kerr presiding.

Minutes of the previous meeting were read and accepted without correction.

F. F. Hatch presented a very interesting case from whom he had removed a hypernephroma, and pathological specimen was demonstrated.

L. N. Ossman presented a case of arthritis of the spine, with abdominal symptoms showing improvement after application of the body-cast. He also presented interesting X-ray films of the spine.

A. J. Hosmer presented a case of fracture of the eleventh and twelfth dorsal vertebrae on which he had done a Hibbs operation.

The program for the evening was a symposium on backs. J. F. Critchlow presented the subject of "Railway Spine," illustrating very clearly how the condition was brought about by many examinations in a patient susceptible to suggestion.

A. J. Hosmer presented the subject of "Fractures and Dislocations," discussing symptoms and methods of relief by fixation. To illustrate his points, there were X-ray films shown by J. P. Kerby.

S. C. Baldwin presented the subject of "Arthritis of the Spine," stressing physical examinations, X-rays, and history. He dwelled especially on infectious and traumatic arthritis and treatment by immobilization. These papers were discussed by Tyree, Ossman, Holbrook, Morrell of Ogden, Ezra Rich of Ogden, and J. P. Kerby, who exhibited some films showing anomalies.

The proposed amendment to the By-laws, providing for a permanent medico legal committee, was read. Raley moved it be accepted.

Kerby moved that the amendment be amended so that the three members would be appointed to serve a term of three years, three members a term of two years, and three members a term of one year. Seconded and carried as amended. This was discussed briefly by J. F. Critchlow, Colonge, and Beer.

The applications for membership from J. Clinton Bown, F. K. Root, and Charles W. Woodruff were voted upon. These men were elected to membership.

A letter from Carl L. Sandberg, expressing appreciation for the floral offering sent by the society to Mrs. Sandberg's funeral, was read.

Minutes of the Salt Lake County Medical Society February 11, 1924

Sixty-seven members and three visitors were present at the regular meeting of the Salt Lake County Medical Society held at the Commercial Club, Salt Lake City, Monday evening, February 11. President Kerr presided.

Minutes of the previous meeting were read and accepted without correction.

Judge Harold M. Stevens spoke on the purpose of the Community Clinic and gave a report of the work done and cost of operating clinic. He also gave some examples of the cases treated, giving brief clinical history and results.

No clinical cases were presented.

The first paper of the scientific program was enentitled "Goitre in the Great Basin," given by George W. Middleton. He discussed the distribution, probable cause, treatment and results in the goitre cases he has treated. He also discussed the technique of operation, post-operative treatment and medical treatment. This excellent paper was discussed by L. J. Paul, W. L. Lindsay, Skidmore, Hampton, Hosmer, and Ralph Richards.

E. S. Pomeroy gave a paper on "Newer Methods in the Treatment of Syphilis." He discussed the variout methods of treatment with the older and newer drugs giving their uses and dangers. Discussion by Schulte, Estes, and Rich.

B. W. Black read a brief outline of the life of our late member, L. B. Laker of Eureka, Utah. He read a resolution and moved that it be spread upon the minutes and a copy sent to the family of the deceased. Seconded and carried.

W. R. Tyndale reported for the Library Committee, putting forth the idea of having a loan library. He moved that the Library Committee should be enlarged so as to include one member of all the various specialties. Seconded and carried.

M. M. Nielson reported that the committee appointed to investigate institutions caring for charity cases was not ready to give a final report.

Nevada State Medical Association

HORACE J. BROWN, M. D., Reno.....President
CLAUDE E. PIERSALL, M. D., Reno.....
..Secretary-Treasurer and Associate Editor for Nevada

Annual Meeting—Great enthusiasm is being manifested in the arrangements and program for the next annual meeting of the State Association. Offers of papers are being received in an encouraging number, but we expect more from other members.

Both the Elko County Society and the Eureka "bunch" are 100 per cent in membership and dues, and the Eureka men are 100 per cent in offers for papers.

Our Journal of Medicine goes to print on the 20th of each month. Only our members who have paid before that date may expect their Journal that month. Dues are now due. All members are urged to send in items of interest for publication in the Journal. Either send them to your associate editor for Nevada, or to the editor of the California State Journal of Medicine direct. The California State Journal of Medicine will be glad to give more space to Nevada if material is sent to the editor.

Medical School News

Teaching Therapeutics and the Art of Medicine—With a desire to improve the teaching in practical therapeutics and the art of medicine, the department of medicine at the University of California Hospital has selected fourteen alumni of the school to devote a week of their time to this instruction during the spring semester (January 15 to May 15). Such instruction will be given to senior students and interns at the University Hospital. Each alumni instructor will spend his entire time at the hospital, taking part in ward rounds, assisting in the instruction of students, holding seminars and giving one talk to the entire student body and house staff during the week.

If the plan works to the mutual advantage of students, alumni, and faculty, it probably will be repeated each year. The schedule is as follows:

January 28-February 2, Walter C. Alvarez, 177 Post street, San Francisco.

February 4-9, J. W. Shiels, 516 Sutter street, San Francisco.

February 11-16, Henry Chesley Bush, Arroyo Sanitarium, Livermore, Cal.

February 18-23, James W. Seawell, 117 North street, Healdsburg, Cal.

February 25-March 1, Dewey R. Powell, Farmers and Merchants' building, Stockton, Cal.

March 3-8, Ruby L. Cunningham, Infirmary, Berkeley, Cal.

March 10-15, Elmer W. Bingaman, Gonzales, Cal.

March 17-22, Daniel I. Aller, 908 Mattei building, Fresno, Cal.

March 24-29, John N. Chain, Fourth and E streets, Eureka, Cal.

March 31-April 5, A. A. Alexander, 1307 Broadway, Oakland, Cal.

April, 7-12, Irvin H. Betts, Visalia, Cal.

April 14-19, Otto T. Schulze, Napa, Cal.

April 21-26, Ergo A. Majors, 532 Fifteenth street, Oakland, Cal.

April 28-May 3, Dan H. Moulton, Chico, Cal.

University of California Medical School—Several conferences have been held by members of the faculties of the Stanford University Medical School and the University of California Medical School for the purpose of discussing questions of medical education which have arisen. At a recent conference a committee, composed of William Ophuls, Frank M. McFarland, Emmet Rixford of Stanford University and W. P. Lucas, C. L. A. Schmidt, and L. S. Schmitt of the University of California Medical School reported the results of a study of the present premedical requirements.

By action of the Graduate Council of the University of California, medical students may offer advanced work in the medical curriculum toward the master's degree. Work in the clinical departments may also be offered toward the degree of Doctor of Philosophy.

A joint conference between representatives of the Graduate Council and the Medical School has recommended that the proposed degree of Doctor of Public Health be not granted unless the candidate has previously received the degree of Doctor of Medicine.

A committee of the faculty is now at work studying a revision of the undergraduate medical curriculum, with a view to making such changes as are desirable under the present Medical Practice Act.

In order that medical students may appreciate the value of carrying out the resolution of the Medical Society of California relative to a health center, the advisory board of the Medical School authorized the establishment of an adult health center in connection with the University of California out-patient department.

By mutual agreement the affiliation between the University of California Medical School at St. Luke's Hospital has been canceled.

A course of public lectures has been established. These lectures are held on Sunday afternoons at 2:15 p. m. in Toland Hall, University of California Hospital.

A committee of the faculty is now working on a plan to offer courses in graduate instruction during the summer months.

L. S. Schmitt, acting dean, has been delegated to attend the meeting of the Association of American Medical Colleges to be held in Omaha, February 28 and 29, 1924, and the Conference on Medical Education to be held in Chicago on March 3, 4, and 5, 1924.

The following changes and additions to the faculty have recently been made: Arthur D. Houghton appointed as associate in Anatomy, vice Katharine Scott Bishop, resigned; William S. Kiskadden appointed as assistant in Surgery; John J. Sampson appointed as assistant in Medicine; Frances A. Torrey appointed as assistant in Dermatology.

The following gifts have been received:

The gift of $1200 from Dr. Ferdinand Stabel for the establishment of the Ferdinand Stabel Research Fellowship in Bacteriology, for the study of chemotherapy, particularly basic Fuchsin in Tuberculosis and related problems, effective January 1, 1924, and ending December 31, 1924, with the understanding that Stabel reserves the right to continue this work after that date by making further financial provisions.

The gift of $717.64 from Dr. Norman T. Bridge, being his annual contribution to the Edith Claypole Memorial Research Fellowship in Pathology.

The gift of $1500 from the National Research Council, representing an advance from the appropriation "Sex Research Fund, 1924," to be used by H. M. Evans, in connection with his investigations of the physiology of reproduction.

The gift of $200 from the Alexander Ector Orr Foundation to be used for the furtherance of educational and medical work along charitable lines in the University hospitals, with particular attention to the work among destitute children.

The gift from Dr. Albert H. Rowe to the department of Biochemistry and Pharmacology amounting to $300, to be paid over a period of six months for use in connection with the studies in carbohydrate metabolism.

Stanford University School of Medicine (William Ophuls, dean; Albion Walter Hewlett, secretary of the medical faculty) — Summer Quarter, 1924 — Between June 15 and September 1, 1924, while there is no routine teaching of under-graduate students at the Medical School, properly qualified graduates in medicine and medical students of this and of other schools are invited to avail themselves of the opportunities for clinical and laboratory work as special workers. The workers are expected to assist in the practical work of the various departments. Their work will be supervised, but no set courses will be given. Opportunity to make special studies of clinical and laboratory problems will also be offered. There will be a registration fee of $3, and in some departments an additional fee for special instruction varying from $50 to $100 will be charged.

The minimum period of attendance will be four weeks. Participants are urged to devote their full time to one subject.

Applications, which should give an outline of the medical experience of the applicant, should be sent to the dean, Stanford University Medical School, 2398 Sacramento street, San Francisco.

Special workers will be received in the following departments:

Pharmacology—Research. P. J. Hanzlik. Charges will cover cost of animals and supplies only.

Pathology—Research in morbid anatomy and ex-

perimental pathology. W. Ophuls and J. R. Oliver. Charges will cover cost of animals and supplies only.

Pediatrics—H. K. Faber. Work in in and out-patient departments. Fee, $50 a month.

Neuro-Psychiatry—H. G. Mehrtens. Fee, $100 a month.

Skin and Syphilis—H. E. Alderson and staff. Fee, $50 a month.

Metabolism Laboratory — Research. Dr. Addis. Charges will cover cost of animals and supplies only.

Radiology—W. E. Chamberlain and R. R. Newell. Fee, $100 first month; $50 for each succeeding month.

Physiotherapy—H. L. Langnecker. Fee $50 for two and one-half months.

General Surgery—S. Stillman. Work in in and out-patient department. No fee.

Orthopedic Surgery—L. W. Ely. (1) Work in the out-patient department. No fee. (2) Special course. Fee, $100 for four weeks.

Genito-Urinary Surgery—J. R. Dillon. (1) Work in the out-patient department. No fee. (2) Special course for four weeks. Fee, $100.

Ophthalmology — A. B. McKee. Work in out-patient department. No fee.

Otorhino-laryngology—J. A. Bacher. Not less than three months, July 1 to October 1. Limited to three workers. Fee, $50 a month.

Surgical Pathology—F. E. Blaisdell. August and September. Fee depends on character of work desired. Blaisdell will give a special course on fractures and dislocations on the cadaver during August and September. Fee to be determined.

Obstetrics and Gynecology—A. B. Spalding, L. A. Emge, A. V. Pettit, and H. von Geldern. Clinical work limited to six workers. No fee.

Gynecological Laboratory—Research. A. B. Spalding and L. A. Emge. Charges will cover cost of animals and supplies only.

Obstetrics, San Francisco Hospital—K. L. Schaupp. Limited to four workers. No fee.

Female Urology—W. E. Stevens and L. Michelson. Limited to two workers. Fee, $200 for six weeks.

The 1924 Lane Lectures—William Ophuls, dean of Stanford Medical School, announces that Ludwig Aschoff, professor of pathology of the University of Freiberg, Germany, has accepted the invitation of Stanford University to deliver the Lane medical lectures for the year 1924. The probable date of the lectures will be from Monday, May 26, to Friday, May 30, inclusive, at 8 p. m., in Lane Hall of the Stanford University Medical School, San Francisco.

The subjects of the lectures will be: The Place of Origin of the Biliary Pigment; Atherosclerosis; Ovulation and Menstruation; Inflammation; Fatty Changes in Disease.

Examination for the United States Public Health Service — Examinations of candidates for entrance into the regular corps of the United States Public Health Service will be held at San Francisco, Cal., April 7, 1924.

Candidates must be not less than 23 nor more than 32 years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon-General, United States Public Health Service, Washington, D. C.

H. S. CUMMING,
Surgeon-General.

AMERICAN MEDICAL ASSOCIATION NEWS

The Chicago Session

Reduced Railroad Rates—The passenger associations of various sections of the United States have established a rate of one and one-half fare for the benefit of those who will attend the Seventy-fifth Annual Session of the American Medical Association. The benefit of this rate will be extended to members of the association and to members of their families who accompany them to Chicago. It will be necessary to purchase tickets to Chicago, paying the regular fare. At the time tickets are purchased, certificates must be secured from the railroad agents. These certificates must be validated by the secretary of the association and by railroad representatives at Chicago. After validation, the certificates will entitle holders to a rate of one-half fare for the return trip to their homes. Tickets for the occasion will be placed on sale in the extreme Far Western States not later than June 3; in territory nearer to Chicago, the dates of sale will be adjusted in accordance with distances to be traveled.

Hotel Reservations for Delegates—The House of Delegates instructed the secretary of the association to arrange for hotel accommodations for all delegates during the Seventy-fifth Annual Session of the American Medical Association, to be held in Chicago, June 9-13. In compliance with these instructions, tentative reservations have been made at the Drake Hotel, Chicago, so that each member of the House of Delegates may be assured of a room at that hotel. The names of all delegates, as far as they are known at the present time, have been sent to the management of the hotel, and letters have gone out to all delegates requesting them to write direct to the Drake Hotel asking for the reservation of such accommodation as may be desired. In writing the hotel, delegates should be careful to specify that the accommodations desired are to be provided from the allotment of rooms tentatively reserved for members of the House of Delegates. Reservations should be made at the earliest possible time. If, for any reason, a delegate does not wish to have accommodations at the Drake Hotel, he should notify the secretary of the association as soon as possible in order that reservations tentatively made and not required may be released for the accommodation of other members of the association.

Announcement by Committee on Hotels — The Committee on Hotels of the local Committee of Arrangements has arranged with the Hotel Men's Association in Chicago for the provision of satisfactory accommodations for all who expect to attend the Seventy-fifth Annual Session of the American Medical Association, June 9-13. This committee has the active co-operation of the Bureau of Conventions of the Chicago Association of Commerce. Members of the association who expect to attend the session should write direct to the hotels of their choice for reservations. If the preferred hotel is unable to provide accommodations as desired, the request will be turned over to the Committee on Hotels of the Local Committee of Arrangements, and accommodations at another hotel will be secured. Duplicate reservations should not be made. In the initial request for reservations, the date of arrival in Chicago, as well as the length of time the applicant expects to remain and the number and kind of rooms desired, should be clearly stated. It is also desirable that second and third choice of hotels be stated. The Committee on Hotels will make every effort to secure accommodations in keeping with expressions of preference. Dr. Frank R. Morton is chairman of the Committee on Hotels of the Local Committee of Arrangements. If satisfactory arrangements for hotel reservations cannot be made through communications addressed directly to hotels, the Committee on Hotels may be addressed at the office of the Local Committee of Arrangements, Room 1522, 25 East Washington Street, Chicago.

A complete list of Chicago's leading hotels and rates to be charged will appear in the Journal in the near future.

BOOK REVIEWS

Diseases of the Skin. Including the acute eruptive fevers. By Frank Crozer Knowles, M. D. Second edition. Philadelphia and New York: Lea & Febiger. 1923.

Every book has its own special excellencies, and the high point in this one lies in its illustrations and plates. For instance, there is an impressive photograph of erythema multiforme, and a speaking likeness of the cutaneous lesions of dermatitis herpetiformis, even to the tottering attitude of the patient. It is entirely fitting that this malady should be well illustrated here, as Duhring, who first described the disease as a separate entity, was the author's honored teacher.

Another interesting portrayal is of a belladonna eruption with the plasters in place, from which the eruption arose. It must always be remembered that severe constitutional poisoning may arise from this source, and, by the way, this bears witness to the efficacy of these plasters, which are now admirably prepared by our best drug houses.

Everyone conversant with skin disease is aware of the difficult problems presented by lesions of the hands, both those which are incurable and those which may be cured. A good photograph is given of epidermolysis bullosa of the hands, which is a congenital affection enduring throughout the entire life of the patient, and for which, as being incurable, only ameliorative remedies should be prescribed. As a contrast, there is an example of dermatitis from packing quinine, a most striking photograph, for which the remedy, a change of work, is obvious. Another good point brought out in the illustrations is of a kind of eczema which yields especially well to X-ray treatment. In fact, the hands are well pictured, and a list of these and the other illustrations would have been a decided advantage to this book.

There is yet another good point in the book, a chapter entitled: "Regional Distribution of Diseases of the Skin." As certain diseases do occur most commonly in certain regions, such an arrangement should be helpful in arriving at a diagnosis. In fact, Sabouraud has written a book, with the diseases arranged according to this plan. D. W. M.

Sexual Problems of Today. By William J. Robinson, M. D. Twelfth Edition.

Many of those who believe the sordid story of sex, as seen by the physician, should be made public property will endorse Dr. Robinson's book. Those who believe that much of the information given should remain privileged information of educated physicians will condemn the book in unmeasured terms.

Surgical and Mechanical Treatment of Peripheral Nerves. By Byron Stookey. With a chapter on Nerve Degeneration and Regeneration. By G. Carl Huber. 475 pages. Illustrated. Philadelphia and London: W. B. Saunders Co. 1922. Price $10.

A well written book of nearly 500 pages, containing over 200 drawings, diagrams, and photomicrographs. The book has value, largely in giving the experiences and opinions of the writer.

The title indicates the contents only in part. Perhaps one-quarter of the book is given over to a consideration of anatomy, gross and microscopic, nerve degeneration and regeneration, and a critical consideration of the earlier methods of nerve repair.

The principal nerves of the extremities, the principal motor cranial nerves, and the plexuses are taken up in individual chapters. Bibliographies appended to each chapter are excellent and well selected. While in certain portions of the book the reader could wish for more detailed consideration of certain points, it has been obviously impossible to follow all the by-paths into which one's interest might be led.

This reviewer wishes that more consideration might have been given to the details and possibilities of direct examination of individual muscle function. In the chapter on mechanical treatment, however, the exceptional experimental work of McLeod and his associates on the value of massage and electrical treatment has been omitted. The frequency with which cable grafts are featured seems to give undue emphasis to their practical value and the comparatively rare need of them.

The book is most readable and should be a valuable addition to the library of those interested in this branch of surgery. H. C. N.

Management of the Sick Infant. By Langley Porter, M. D. and William E. Carter, M. D. Second revised edition, illustrated. St. Louis: C. V. Mosby Co., 1924.

It is gratifying to students and colleagues of the authors that their book has reached a second edition in such a short time. Editors, as other physicians, must keep constantly available revised editions of good books to assist them in their work. We cannot say more for Doctor Porter's and Doctor Carter's book than that it is used as the editor's desk copy.

Blood Chemistry. Colorimetric methods for the general practitioner, with clinical comments and dietary suggestions. By Willard J. Stone. 75 pages. New York: Paul Hoeber. 1923. Price, $2.25.

A small book (75 pages) embracing laboratory methods of blood chemistry, and its clinical application, renal function determination, food lists for the dietetic control of disturbances of metabolism and test and maintenance diets for the control of diabetes.

It is a compilation of tests and dietary methods found, and more comprehensively presented, in the usual text-books on these subjects.

The obvious purpose of the book is to encourage blood chemistry in the "small" laboratory. The tests are given with fractional portions of the normal amounts called for in the original methods; but the contraction of methods already microscopical renders more difficult and less accurate tests that demand the utmost exactness in their performance.

E. A. V.

An Introduction to the Study of Mental Disorders. By Francis M. Barnes. Second edition. 295 pages. St. Louis: C. V. Mosby Company. 1923. Price, $3.75.

A second edition means that there has been a demand for the book, and examination explains it. It is short. There are less than 300 pages. The style is good and it makes easy reading. It has given a concise history of psychiatry from the ancients to the present, and bridges the gap between the somatic school of Kraepelin and the newer work of the psychological school without belittling or exalting either, although it is apparent that the author does not rave over Freud. None of the arch-Freudians are mentioned in the bibliography.

As an introduction to psychiatry for medical students, it serves its purpose excellently. E. W. T.

Intravenous Therapy. Its application in the modern practice of medicine. By Walton Forest Dutton, M. D. 542 pages. Illustrated. Philadelphia: F. A. Davis Company. 1924.

Much heterogeneous information is gathered between the two covers of this book. The chapters on transfusion are complete and historically interesting. They make up about a sixth of the whole book. Besides them is an encyclopedia of diseases, listed alphabetically, most of which might well have been omitted. L. E.

BOOKS RECEIVED

Hernia: Its Anatomy, Etiology, Symptoms, Diagnosis, Differential Diagnosis, Prognosis, and Operative Treatment. By Leigh F. Watson, M. D., Associate in Surgery, Rush Medical College, Chicago. Two hundred and thirty-two original illustrations by W. C. Shepard. St. Louis: C. V. Mosby Company. 1924.

Practical Chemical Analysis of Blood. A book designed as a Brief Survey of this Subject for Physicians and Laboratory Workers. By Victor Caryl Myers, Ph. D., Professor and Director of the Department of Biochemistry, New York Post-Graduate Medical School and Hospital. Second Revised Edition. Illustrated. St. Louis: C. V. Mosby Company. 1924.

Management of the Sick Infant. By Langley Porter, M. D., Professor of Clinical Pediatrics, University of California Medical School; Visiting Physician San Francisco Children's Hospital; Consulting Pediatrician, Baby Hospital, Oakland; Mary's Help Hospital, San Francisco; and William E. Carter, M. D., Assistant in Pediatrics and Chief of Out-Patient Department, University of California Medical School; Attending Physician San Francisco Hospital, San Francisco. Second Revised Edition. Illustrated. St. Louis: C. V. Mosby Company. 1924.

Geriatrics: A Treatise on the Prevention and Treatment of Diseases of Old Age and the Care of the Aged. By Malford W. Thewlis, M. D., Editor Medical Review of Reviews, The Therapeutic and Dietetic Age. With Introduction by A. Jacobi, M. D., and I. L. Nascher, M. D. Second Edition, Revised and Enlarged. St. Louis: C. V. Mosby Company. 1924.

Lectures on Endocrinology. By Walter Timme, M. D., Attending Neurologist, Neurological Institute, New York; Professor of Endocrinology, Broad Street Hospital; Professor of Nervous and Mental Diseases, Polyclinic Medical School and Hospital. With 27 illustrations. Paul B. Hoeber, Inc., New York. 1924.

Intranasal Surgery. By Fred J. Pratt, M. D., Assistant Professor, Eye, Ear, Nose and Throat, Medical School, University of Minnesota, and John A. Pratt, M. D., Assistant Professor as above. Illustrated with 195 half-tone engravings. Philadelphia: F. A. Davis Company. 1924.

Intravenous Therapy: Its Application in the Modern Practice of Medicine. By Walton Forest Dutton, M. D., Medical Director Polyclinic and Medico-Chirurgical Hospitals, Graduate School of Medicine, University of Pennsylvania. With 59 illustrations. Philadelphia: F. A. Davis Company. 1924.

Fighting Foes too Small to See. By Joseph McFarland, M. D., Professor of Pathology in the Medical Department of the University of Pennsylvania. With 64 engravings. Philadelhpia: F. A. Davis Company, Publishers. 1924.

Report From the Department of Pathology and the Department of Clinical Psychiatry, Central Indiana Hospital for the Insane, 1917-1918 and 1918-1919. Vol. VIII. Indianapolis: William B. Burfod, Contractor for State Printing and Binding. 1923.

Sexual Problems of Today. By William J. Robinson, M. D., President American Society of Medical Sociology, etc. Twelfth Edition. The Critic and Guide Company, 12 Mt. Morris Park West, New York. 1923.

Genito-urinary Diseases and Syphilis. By Henry H. Morton, M. D., Professor of Genito-urinary Diseases and Syphilis, in the Long Island College Hospital, and Genito-urinary Surgeon to the Long Island College Hospital and Polhemus Memorial Clinic, etc. Fifth Edition, Revised and Enlarged. With 328 illustrations and 38 full-page colored plates. New York: Physicians and Surgeons' Book Company, 352 West Fifty-ninth Street. 1924.

Surgical Pathology. By Joseph McFarland, M. D., Professor of Pathology in the Medical Department of the University of Pennsylvania. With 435 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1924.

Practical Electrotherapeutics and Diathermy. By G. Betton Massey, M. D., Fellow and Former President American Electrotherapeutic Association; Former Surgeon to the American Oncologic Hospital, etc. New York: The Macmillan Company. 1924.

Reapportionment of Delegates to American Medical Association (Secretary West of the A. M. A. to Secretary Emma W. Pope of the California Medical Association)—"The last reapportionment of delegates was effected at the Seventy-second Annual Session, held at Boston in 1921. Another reapportionment will, therefore, be made at the Seventy-fifth Annual Session of the Association to be held in Chicago, June 9-13, 1924. As the reapportionment will be made on the basis of the membership in constituent associations, as that membership has been reported and recorded on the membership records of the American Medical Association on April 1, 1924, it is important that this office shall have complete reports of the membership of your association so that the names of all members may be duly recorded in this office before April 1, 1924.

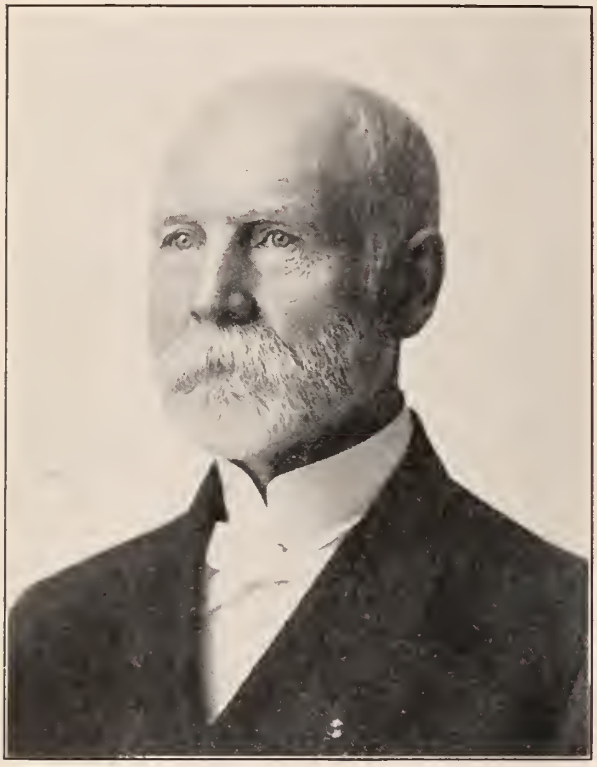
This matter is brought to your attention now in order that you may remind the secretaries of your component county medical societies of the need of the fullest possible reports of membership in their respective organizations.

Delegates already elected or to be elected for service in the House of Delegates for the Seventy-fifth Annual Session of the American Medical Association in June, 1924, will be in no way affected by the reapportionment to be made in Chicago.

On January 1, 1924, the membership of the American Medical Association, which, of course, is the combined membership of the constituent State and territorial associations, was 89,835. It is sincerely hoped that this splendid membership will be maintained and even increased by the affiliation of desirable and eligible physicians, and that the membership in your State will be maintained at a figure that will insure that there will be no reduction of representation in the House of Delegates."

Physiotherapists Meet—Some forty physiotherapists of Northern California attended a luncheon-meeting at the Clift Hotel in San Francisco recently. Miss Hazel Furscott, president of the association, presided and the meeting was addressed by James T. Watkins and W. E. Musgrave. Those present were: Florence Atkinson, Ethel Johnson, Beulah Rader, L. B. Bryan, Mrs. P. Rowe, Dorothy Vockel, Hilda Knausenberger, Hazel E. Furscott, Charlotte Ballard, Hilda Rodway, Elizabeth R. Stoner, Lou Kindall, Sarah R. Davis, Gus Hanson, Ruth Hassell, Ethel McDonald, Evelyn Lewis, Alice Hampton, Carol Alunes, Dagmar Magnisen, Mary L. Schaaf, Alice Peterson, Bertha Monroe, Mabel Penfield, Helen Boucher, Rose Swantelson, Miss Münsing.

Obituary



W. FLETCHER McNUTT
1839-1924

By C. F. Buckley, M. D.

Dr. McNutt was born in Nova Scotia in 1839 and graduated in medicine from Harvard. As he grew in years, he grew more ambitious and thought that he must go to other spheres where erudition was supposed to be greater and the courses more finished. So he betook himself to Europe and took a degree in Edinborough and then returned to this country and devoted all his energy to alleviating the sufferings of the Northern battalions who were devoting their lives to the cause of the Union. He served then in the Civil War for three years and retired with honor. As to the number of engagements and such things, it is unnecessary to go into details; he did his duty loyally and nobly. He was in some of the severest engagements, particularly around Vicksburg, and did some remarkable surgical work during the siege of that city.

If he had any characteristic more commendable than another it was his poise. I don't think his closest friends ever saw him lose his temper or get excited about any important thing he was engaged in. To young men of the medical profession, he was undoubtedly an outstanding example of the understanding physician.

He came to San Francisco in 1869 and became one of the city's leading medical authorities. He also filled two public posts, with great credit to himself and the community: he was prison director and also police commissioner, and introduced several innovations that are an outstanding benefit to the community.

I do not think that if Dr. McNutt were in the flesh and the storms and strife around and about us he would care for any long eulogy from me or anyone else. Whatever faults he possessed were his own; nobody ever suffered from them. The charm of his life was his sincerity and devotion.

May God reward a very worthy friend and an excellent doctor.

NEW MEMBERS

Los Angeles—Joseph M. Harris, Harry S. Fist, John P. Gilmer, William G. Raber, Clinton Roath, Leonard C. Sloane, Edson H. Steele, Matsuta Takahashi, Henry M. Thompson, Giuseppe Vercellini, Earl W. Wells, Harold R. Witherbee, Madison J. Keeney,

San Diego—Bernice M. Hazen, Donald T. Babcock, Henry C. Babcock.

San Francisco — Randolph G. Flood, Louis J. Oviedo, Mast Wolfsohn.

Santa Rosa—George W. Mallory.

Woodland—James E. Harbinson.

Colfax—Hugh G. Chisholm, Richard O. Schofield.

Pasadena—L. L. Henninger.

Long Beach—Z. Gorton Jones.

Glendale—Alonzo E. Mack.

DEATHS

Dirks, Charles B. Died at Los Angeles, January 20, 1924. Graduate of Rush Medical College, Chicago, 1903. Licensed in California, 1914. He was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Harrison, Samuel Ingelby. Died at San Francisco, January 6, 1924, age 66. Graduate of Rush Medical College, 1887. Licensed in California, 1898. He was a member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

Hodkinson, William Austin. Died at Santa Monica, January 28, 1924, age 54. Graduate of University of Pittsburgh School of Medicine, 1894. Licensed in California, 1910. He was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Kaull, Lee Perry. Died at San Bernardino, December 19, 1923, age 51. Graduate of Kansas City Medical College, 1898. Licensed in California, 1908. He was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Koltz, Bernard J. Died at San Francisco, December 17, 1924, age 45. Graduate of the University of California Medical School, San Francisco, 1900. He was a member of the Solano County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

McNutt, William Fletcher, Sr. Died at San Francisco, January 28, 1924, age 85. Graduate of Royal College of Surgeons, Scotland, 1865, and the Medical Department of the University of Vermont, 1867. He was formerly a member of the San Francisco County Medical Society and the California Medical Association.

Reed, Elgar. Died at Chino, February 13, 1924, age 58. Graduate of the Cincinnati College of Medicine and Surgery, 1893. He was a member of the San Bernardino County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Stallard, Samuel Lawrence. Died at Greenwood, New York, February 8, 1924, age 38. Graduate of the Kentucky School of Medicine, 1907. Licensed in California, 1922. He was a member of the New York State Medical Association.

The Great American Prim Press

Two of the "Machines that Reduce Labor Turnover" in the University of California Hospital.

An Ironing Machine That Goes to School

The two Prim Presses pictured here passed the "entrance exams" at the University of California Hospital Laundry with high grades, and the work they are doing is most satisfactory to the faculty.

Prim Presses encourage head work by eliminating foot work. They are electrically operated and have no foot-treadles. The press operator is relieved of the tiring manual labor which formerly sapped her energy, and she devotes all of her thought and effort to turning out better work and more work.

They are used for ironing wearing apparel of all kinds: Patients' gowns and pajamas, attendants' uniforms, surgeons' gowns and aprons, and nurses' gowns. Two of these presses enable one operator to do the work of three or four hand-ironers with less effort than hand-ironing calls for.

You will find Prim Presses especially suited to your institutional laundry for these reasons. Have us submit additional details which will convince you.

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CALIFORNIA
AND
WESTERN MEDICINE

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Official Organ of the California, Nevada and Utah Medical Associations

THIS number of CALIFORNIA AND WESTERN MEDICINE is increased in size by sixteen pages, making a total of one hundred and thirty-two pages. The House of Delegates will be requested to authorize making this temporary increase of space permanent. ¶ The complete program of the California Medical Association annual meeting, Los Angeles, May 12 to 15, 1924, is published in this issue. Make your plans to attend this meeting, and, most important of all, right now make your hotel reservations. ¶ The policy editorials in this number of the Journal have been presented to and approved for publication by the Executive Committee.

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(*Continuing the California State Journal of Medicine*)

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CALIFORNIA AND WESTERN MEDICINE

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VOL. XXII APRIL, 1924 No. 4

ORIGINAL ARTICLES

SOME PRACTICAL SUGGESTIONS IN THE TREATMENT OF FRACTURES *

By FRED R. FAIRCHILD, M. D.
(From the Woodland Clinic)

So commonplace a discussion as that suggested by the title of this paper would almost seem to be out of place in an assembly of highly trained scientific men. Yet I do not feel that an apology is necessary. It has been my observation that, in the effort to keep abreast of all that is new and often spectacular in surgical diagnosis and treatment, the good old-fashioned fundamental to success is often crowded out. I refer to plain common sense—to the balance that enables one man to do exactly the right thing at the right time while another is confused by theories. Certainly in no branch of our profession are the practical qualities of the surgeon taxed to a greater extent than in the treatment of fractures, and certainly in no department do we oftener see the fruits of bad judgment. This is true, because fractures are treated by surgeons of all grades of distinction and, of necessity, in the rural communities, by medical men who make no claim to surgical ability. It is also true that fractures are the most common of all surgical problems and, as "familiarity breeds contempt," we fall into the habit of a too casual consideration of the case. We do not think. We treat the fracture as other seemingly similar cases are treated, and often we go wrong, where a few minutes of careful consideration of the case as a separate problem would put us right.

The first practical general suggestion then, is to consider each fracture by itself. It is not enough to know that we are dealing with a Colles or a Potts or any other type fracture and then to proceed according to rule. Any of the classical breaks may have modifying factors of such nature as to make the routine treatment not right, but wrong. For example, even in a type fracture, the wrong relation of a small fragment to an articulating surface, or the apposition of two fragments of certain contiguous bones may mean a permanently deficient and painful joint. It may mean the loss of the rotating function of the forearm. Exact knowledge of the size and position of every fragment and its relation to the anatomical structures is fundamental. To state that this information can be had from proper radiographs and should never be neglected is academic. Yet the statement is not out of place, for we all know that the facts are that this information is often not so obtained, nor is it always considered indispensable. The wise surgeon never neglects so to safeguard his patient's happiness and his own reputation. He gets exact data and the factors of the problem all before him. Then is the time for some plain thinking, for the case is reduced to a more or less complicated problem in mechanics. There may be several possible solutions, but there is only one best way. Common sense, straight thinking, these alone enable one to select the proper course. These applied to each fracture case as an individual problem are the best guarantees for satisfactory results.

The next general suggestion is a warning against overenthusiasm for any one method. The young surgeon, particularly, is in danger of being carried away by the brilliant results of certain brilliant operators who are exponents of certain types of procedure. Fifteen years ago I was convinced that the application of metal plates and screws was the proper method for most open reductions. Then came gradual concession as to bands and other mechanical internal supports as deserving of consideration. Later the bone graft was the method of choice. Then came a time of open operation with replacement of fragments and no application of foreign material. Now we know that no method is the best; that all are good, providing there is judgment behind the choice and skill in its application. But more significant is this fact: that not one open

* Presented to the Section on Surgery at the Fifty-second Annual Session of the California Medical Association, San Francisco, June, 1923.

reduction is now found necessary where five were done some years ago and yet the number of fractures seen is many times greater, all of which means that we are now thoughtfully fitting the method to the case and not the case to the method. And it is worthwhile to note in passing that failure to do this constitutes the most common-source error in fracture work.

So much for the general practical consideration of our subject. It may be worthwhile to be more specific. The Thomas splint, it seems to me, should stand at the top of the list of practical things in fracture work. It is a most remarkable fact that this splint should have been almost unused from the time of the Civil War to the recent great war, for this splint combines the ideal attributes of a splint as no other one does for the management of fractures of the long bones. The qualities of securing extension and fixation of the fragments with freedom of the body, exposure of the limb and fracture site, giving perfect ocular and X-ray observation enable us to handle with assurance those cases that formerly caused us much worry. And yet with the absolute proven and undisputed value of this simple contrivance, the Thomas splint is even now all too infrequently used. If our own experience may serve as a basis of judgment, we must conclude that the majority of those men who are treating fractures do not know the Thomas splint, or knowing of it, from lack of experience do not appreciate its values. If this splint is as generally valuable as we believe it to be, and if it is as little appreciated as we are led from experience to suppose, no more practical thing can be done than to discuss it from the standpoint of personal experience.

We may assume that the general principles of the splint are familiar to all—a ring adapted to receive counter-extension against the trunk, two long arms extending along the sides of the limb and united well beyond the extremity, from which point extension is effected. Now what are the practical points in its use? There are several that only experience will teach, for, as we before pointed out, each case constitutes an individual problem because of probable variation from the classical, and our text-books seem to have a habit of discussing just the conditions that do not fit our individual case.

Unless one is so situated as to be able to make selection from a large number of Thomas splints, it will be found better to have an ordinary blacksmith make the splint desired. This because satisfaction will be had only by a properly fitting splint, and the splint will be made to fit properly only when many factors in its construction are taken into consideration. For example, assume a thigh fracture, at or above the middle. We desire extension, abduction, and fixation. We must know the two angles the plane of the ring is to have in relation to the axis of the thigh. We will probably have to bring the upper part of the ring forward to avoid impingement on the crest of the ilium. We must have the diameter and shape of the ring such as to give us the greatest bearing surface in relation to the trunk; otherwise there is danger of pressure sores. The ring must be so padded as to insure comfort and covered with a non-absorbing washable substance so that it can be kept sanitary without removal. The angle must be such in the shafts as to afford the desired flexion of the knee. The length of the thigh must be known to place this angle at the proper distance from the ring. Here, then, are many details to be considered and they are prosaic details, but very vital to the patient's comfort and to the ultimate result. An hour spent by the surgeon in knowing that all of these factors have been considered will be repayed a hundredfold. In considering them it is perfectly obvious that the custom-made splint will probably not serve the purpose. Usually these factors will be properly met only when the splint is constructed to meet the known conditions of the particular patient.

The splint having been modeled to serve the purpose, what does experience teach as to its application? The splint is placed over the limb, which is held in a cradle made by strips of unbleached muslin of width corresponding to necessity, which are pinned under the limb from one shaft of the splint to the other. Extension is secured by wide moleskin strips placed longitudinally on either side of the leg from the knee down. To these tapes are attached. No immediate effort is made to reduce the fracture, but as much extension as can be easily tolerated is made continuously for from three to five days. At the end of this time, it will be found that full, and often, overextension has been secured and that also by reason of this factor, the soft tissue will generally have been drawn, by tension, from between the fragments. The X-ray now comes into play and, by its aid, the fragments are so manipulated as to secure satisfactory position. This can usually be done with little pain and without anesthesia, because of the very satisfactory extension which is still in force while the final reduction is being accomplished. Reposition being secured, the position is so held by wide muslin bands about the limb—above or below the fracture around the internal or external rod, under or over the limb according to the mechanics of the situation. As proof of the efficacy of the procedure is the fact that we have found it necessary to do no open operation on a fractured femur since the war, and we have no case the results of which cause us embarrassment. (We are not, of course, referring to old fractures, or fractures seen after partial union in malposition.)

All that has been said of the type of fracture taken as an example is applicable, with proper modification, to the treatment of fractures of the other long bones. In the lesions of the tibia and fibula, if not too low, a properly fitted and padded upper of a shoe makes an excellent attachment for the tape. In the ulna and radius—perhaps the most troublesome bones to hold in position after fractures—the method is ideal, for, in addition to extension, we can secure supination or pronation and maintain the position. Since the use of the Thomas splint in this type of fracture, we have found open reduction necessary in one case only.

It will be worthwhile to speak more specifically of some of the details mentioned in a general way in the preceding paragraph. A description of the splint was given, but of what material should it be

made? This would seem not to be a material factor, but, on the contrary, it is of very great importance. By experience, we have found that most of the commercial splints are constructed of unsatisfactory material. The rods for the long lateral portions are generally too heavy or made of iron that is not sufficiently malleable. These pieces must be strong enough to retain their shape under the strain of the extension, but not so stiff as to make bending while in position a hard task. It will often be found necessary to increase or decrease the joint angle to place the axes of the main fragments in proper alignment. This may easily be accomplished without removing or seriously disturbing the adjustment of the splint by the use of two wrenches placed above and below the point to be angulated if the shafts are made of three-eighths inch Norway iron. This material and size affords ample strength with easy moulding qualities. If, as so often happens, one-quarter inch iron or iron of poor quality is used, we will find it impossible to alter the shape without removal, a most unfortunate proceeding.

Mole-skin was suggested as the material to use for attaching the extension tapes. We have found it so much more satisfactory than any of the common adhesive tapes that they are now never considered. Under long extension other adhesive substances slowly but surely slip from the canvas, and extension is gradually lost. This in itself destroys its value. In addition, irritation of the skin is common. Mole-skin plaster has neither of these undesirable features.

When the Thomas splint is used on the lower extremity, suspension of the limb may or may not be found advisable. If suspension is desired, we use for this purpose a very simple home-made frame that may be attached to any hospital bed in five minutes. The frame is placed on the side of the bed desired. Suspension is secured by a pulley attached to the frame, and counter-weights just sufficient to balance the limb are used. The pulley is so placed as to make a downward pull on the entire splint, reducing, by just this much, the pressure of the padded ring on the trunk. This little point is worth noting, as it adds materially to the patient's comfort. Another minor but worthwhile point is to suggest that tapes of certain length be attached to the end of the splint in such manner that elevation and lowering of the limb will be limited to certain desired points only.

Compound fractures form the subject of another discussion. For lack of time we must pass the subject with the observation that these fractures, controlled by this method, are treated with a far greater degree of satisfaction than by any method of casts or encircling splints. The wound can be always under observation, and the danger and disagreeable features from secondary contamination very largely avoided.

Before leaving the discussion of the virtues of the Thomas splint, I cannot fail to mention another type of case in which it has proven invaluable to us. I refer to its use in the post-operative care of open operations on the long bones, the femur in particular. I think most of you will agree that the post-operative mechanics, as applied to open reductions of thigh fractures, is quite as important and much more difficult than the original operation. How many times have we seen results that, judged from the immediate post-operative indications, should have been 100 per cent perfect, gradually change to failure or at least to conditions cosmetically or functionally less than satisfactory. The reason under old, though not obsolete methods—for they are still quite generally used—are obvious. Given a fleshy, well-muscled thigh that has been properly reduced by operation, a cast is applied in the most approved manner. What are the factors that endanger the final result? Strong, constant muscular tension which makes for bowing; a thick, soft muscular pad at the site of the point where angulation is possible; gradual atrophy of this pad from pressure; shrinking of all of the soft tissues within the encircling tube, giving more play than is desired; gradual angulation at the site of the fracture, and, not too infrequently, a fracture of the graft or plate or pulling out of screws, if one of these methods have been employed. Result unsatisfactory. If, on the other hand, the same plan as above discussed for closed fractures is followed, these unhappy results may be entirely eliminated; at least this has been our experience in some rather difficult cases.

The discussion would not be complete without some remarks relative to open-fracture reduction. The subject is so large and important that only those factors which personal experience has taught us is of value will be mentioned.

First let us consider the elements in any given case that should decide for or against an open reduction of any type. We have stated that good radiographs give us the details that enable us to form a correct judgment. But, just as the X-ray enables us to know when operative procedure is necessary, so this very diagnostic aid, if not backed by sound surgical judgment, surely leads to many unnecessary operations. The shadow picture has a bad habit of exaggerating deformities. Also an approximation of fragments that casts anything but a seemingly satisfactory shadow may, after all, be of such relation as to guarantee a cosmetically and functionally perfect result. There is no justification for an operation in the fact that a radiograph is not beautiful, nor in the knowledge of the fact that by an operation we could secure a much more satisfactory one. If we have proper length and proper axial alignment with only partial approximation of the two main fragments in deeply covered bones, we should be satisfied, for there will be no deformity nor deficiency of function. The X-ray plate should be used as a basis of judgment. Too often it is the deciding factor for open operation without the mixture of horse sense earlier mentioned.

Given a fracture that must be reduced by the open method, what is the best procedure? In an earlier paragraph, we stated that no method was the best, that each case must be decided by its individual modifying factors. Certainly, the avoidance of any foreign material as applied to a bone is to be desired. By the use of the splint that we have been discussing, this is possible in an astonishingly

large number of cases. We formerly felt—and correctly felt—under old methods that internal support was generally necessary. We now find that, with the post-operative aid of the Thomas splint, reposition of fragments with removal of interposed soft tissues is usually all that is necessary.

As to ununited fractures: our personal experience aligns us with the rather generally accepted belief that, where the osteogenetic function is shown to be deficient, internal supports of foreign material had best be avoided. We have had the best results with inlays, either sliding or, preferably, of the massive graft type. Where non-union is due to malposition or interposing soft tissue, preventing the meeting of the osteoblasts from the distal and proximal fragments, our experience has not led us to feel that metal plates or other foreign materials are in themselves objectionable.

Finally, we feel that there is one type of fracture that too often results in deformity or functional deficiency. Fractures of the lower end of the humerus, badly comminuted, involving the joint, and often complicated by some form of elbow dislocation, are very common in children. I know of no radiographic plate that is more discouraging. Nor do I know of any seemingly bad fracture that can more certainly be satisfactorily corrected. Manipulation under anesthesia will sometimes be all that is required. If under anesthesia passive motion allows full smooth extension and flexion, and the X-ray is satisfactory, dressing the arm in the Jones position will be all that is necessary, together with patience in restoration of function after the arm is taken down. If passive motion cannot be made satisfactory under anesthesia, under free exposure the fragments should be replaced until this test is satisfactory. With no foreign material applied to the fragments, the arm should then be dressed in the Jones position, and post-operative attention be given as above suggested. Our experience by this method has been most satisfactory, and this type of fracture has lost its terrors.

DISCUSSION

Harlan Shoemaker, M. D. (Bank of Italy Building, Los Angeles)—I am impressed by the wonderful practicability and applicability in the use of the Thomas splint as presented by Fairchild. I am also of the opinion that Fairchild will get better results than the average individual using this device. One thing that occurs to me in the early application of the Thomas splint is the reduction of hemorrhage in the soft tissues. The Thomas splint is undoubtedly the greatest transportation splint that has ever been devised. The doctor speaks of the use of a padded shoe as an attachment for the tape in the reduction of a fracture in the tibia or the fibula. This I believe to be very dangerous. The Sinclair skate has some advantages as a traction anchor. Any substance on the plantar surface is always safe. Where there is continuous extension or any traction on the tarsal bones, it is more liable to produce necrosis and would be very dangerous. The Thomas splint, of course, has its limitations in the practice of surgery. The ring of the splint is very poorly adapted for the female. On the other hand, some prefer the use of casts. The cast should be applied, in most cases, loosely for bone alinement, and snugly for bone correction. It has been my experience with the Thomas splint that the patient is forced into a recumbent position during the entire time of extension, while with a cast he may be turned at will and thus receive a great deal of rest and comfort from this manipulation. Personally, I prefer open reduction with a cast where there is practically no injury to the soft tissues. In very extensive injury to the soft tissues the open splint, with traction, is invariably used.

J. F. Cowan, M. D. (Lane Hospital, San Francisco)—In his excellent paper, Fairchild has brought out a number of valuable practical points in the treatment of fractures of long bones.

In the treatment of any fracture, common sense or straight thinking is of paramount importance, and it is just this that enables the bone-setter with crude apparatus to secure better end-results than are often obtained by a graduate in medicine with the latest improved splints and modern methods.

Another point which should be emphasized is that each fracture should be considered by itself, and that we should not become overenthusiastic about any one method, for no one method is applicable to the successful treatment of all types of fractures.

We have witnessed the advent and the partial or complete disappearance of Buck's extension, the double inclined plane, the Hodgen's splint, the Lane plate, bands, and various types of bone grafts, all of which have had and still have a limited application.

The late war has given added enthusiasm for the Thomas splint, largely because of its simplicity and the facility for transportation it affords; yet this splint has its limitations. The advantages of the Thomas splint are its extreme simplicity, its easy application, the little need of readjustment after reposition of the fragments has been accomplished, the fixation of the fragments in alignment, the ease with which compound fractures may be dressed, and above all the comfort it affords to the patient after proper adjustment. But it has its limitations as all other splints have. In fractures of the neck of the femur and fractures of the leg, while the Thomas splint may be used, other methods, I believe, are equally simple and more efficient.

In supra-condylar fracture of the femur, it is not possible to obtain adjustment and fixation of the fragments for permanent treatment by this or any other method in which traction is applied below the knee for the gastrocnemius, and plantaris muscles maintain the posterior displacement of the proximal end of the distal fragment.

Traction on the leg will only increase this displacement.

In these cases I have used caliper traction on the condyles with the leg flexed, the points of the calipers being engaged well toward the front of the condyles, never toward the back, for traction with calipers in the latter position tends to increase the displacement, while traction in the former position tends to correct it.

Dr. Fairchild's remarks concerning the application of the splint to the individual case are important.

Unfortunately, the village blacksmith has largely disappeared from our large cities, and we are, therefore, dependent upon commercial splints which, while adjustable, cannot be made to fit all cases.

The adjustment of the ring so that pressure is brought upon the tuberosity of the ischium and not on the pubis, and the position of the foot to prevent permanent shortening of the tendo Achillis and a stiff ankle-joint are important factors.

For fracture of the midportion of the thigh, there is no plan of treatment that causes as little discomfort to the patient as the use of this splint, when properly adjusted, and with the use of the Balkan frame with suspension and traction the results obtained surpass those of other methods.

E. W. Cleary, M. D. (177 Post Street, San Francisco)—Dr. Fairchild's paper is both valuable and

timely. Such discussions help us to remember and to give to others the results of the great war experience.

With modern methods of traction splinting at his command, the efficient fracture surgeon is operating on an increasingly smaller percentage of fractures.

I regard the Thomas leg splint as perhaps the single most valuable special appliance in the fracture surgeons' armamentarium. In my experience and observation, the standard United States Army Thomas splint may be efficiently applied to most cases of leg fracture in adult men of average stature. A splint specially made for each individual case, though desirable, is rarely necessary. In using the standard splint, where the size of the ring does not insure the maintenance of contact beneath the ischial tuberosity, such contact is maintained constant by suspension of the ring to a Balkan frame or other overhead suspension apparatus.

In fractures of the lower leg, especially compound fractures near the ankle-joint, traction from the sole of the foot has rendered obsolete the use of the Finochetto stirrup, the pin through the os calcis and the always precarious and unsatisfactory methods of traction from one or another appliance encircling the ankle or foot. The tremendous and enduring adhesive capacity of celluloid-acetone solution has rendered traction from the sole of the foot both simple and sure of application.

I have found direct bone traction through caliper tongs applied to the femoral condyles, as mentioned by Cowan, of great value in cases of supracondylar fracture, fractures of the lower one-third of the femoral shaft and in some old non-unions of upper shaft fractures where much overlapping and shortening demanded very heavy traction. A particularly valuable feature of the caliper tongs is, that their use permits the knee-joint to be moved and frees this joint from the injurious effects of long continued traction strain.

Adjustable pressure pads clamped to the side-bar of the Thomas splint assist in reducing lateral displacements.

In my own practice, I have discarded the Spanish windlass except in emergencies. I now use a thumbscrew or turnbuckle for adjusting traction with a Thomas splint. By incorporating a small spring balance and keeping the balance registering a given number of pounds, I am assured of uniform tension upon the limb.

Any traction splint requires frequent adjustment. Eternal vigilance is the price of good results by conservative methods. Perhaps this is the reason some surgeons still seem to prefer other methods less efficient but more spectacular, and making a lesser tax upon the surgeon's time and energy.

Dr. Fairchild (closing)—The complimentary expressions of the gentlemen kind enough to discuss the paper are fully appreciated; the criticisms are accepted in the same spirit.

Dr. Shoemaker objects to the padded shoe as an attachment for extension as very dangerous. In trying to briefly conclude a paper which was growing too long, my brevity led to my being misunderstood. The padded shoe as a support for any case when heavy traction is required is dangerous and painful to the patient. It should never be used. I have made use of it in very low fractures of tibia and fibula where only moderate traction is required. Traction from the sole of the foot would be better.

Dr. Cowan's point in regard to the use of caliper traction on the condyles is of importance. I have, in low femur fractures, used it with great satisfaction. The principle is the same as the making of traction from a pin through the anterior portions of the condyles, but the trauma is less.

CONGENITAL HYPERTROPHIC PYLORIC STENOSIS IN INFANTS *

WITH REPORT OF FORTY-SEVEN CASES

By GUY COCHRAN, M. D.
(From The Children's Hospital, Los Angeles.)

The earliest record of an example of this disease was unearthed by Osler, and is contained in "Cases and Observations by the Medical Society of New Haven," in the State of Connecticut, 1718, by Hezekiah Beardsley. The following history of the case is given:

"A child of Mr. Joel Grannis, a respectable farmer in the town of Southington, in the first week of its infancy was attacked with a puking, or ejection of the milk, and of every other substance it received into its stomach almost instantaneously, and very little changed.

"The feces were in small quantity and of ash color, which continued with very little variation till its death. For these complaints a physician was consulted, who treated it as a common case arising from acidity in the proma via the testaceous powders and other absorbents and correctors of acid acrimony were used for a long time without any apparent benefit. I was at first inclined to attribute the disorder to a deficiency of bile and gastric juices, so necessary to digestion and chylification, joined with a morbid relaxation of the stomach, the action of which seemed wholly owing to the weight and pressure of its contents, as aliment taken in small quantities would often remain on it, till by the addition of small quantities, the whole, or nearly all, was ejected; but his thirst, or some other cause, most commonly occasioned his swallowing such large draughts as to cause an immediate ejection, and oftentimes before the cup was taken from the mouth.

"A number of the most respectable medical character were consulted and a variety of medicines were used to little or no effect. His death, though long expected, was sudden, which I did not learn till the second day after it took place. This late period, the almost intolerable stench and the impatience of the people who had collected for the funeral prevented so thorough an examination of the body as might otherwise have been made.

"I next examined the stomach, which was unusually large, the coats were about the thickness of a hog's bladder when fresh and distended with air; it contained about a wine pint of fluid exactly resembling that found in the vesicles before mentioned, and which I supposed to have been received just before its death. The pylorus was invested with a hard, compact substance, or scirrhosity, which so completely obstructed the passage into the duodenum as to admit with the greatest difficulty the finest fluid; whether this was the original disorder, or only a consequence, may perhaps be a question. In justice to myself I ought to mention that I had pronounced a scirrhosity in that part before the child's death."

In 1904, Holt wrote that, "without surgical in-

* Presented to the Section on Surgery at the Fifty-second Annual Session of the California Medical Association, San Francisco, June, 1923.

No.	Name	Sex	Age	Gas Wave	Adm.	Regurg.	Duration	Feeding	Weight Adm.	Weight Dise.	Cured	Died	Treatment
1	Henery, Howard..	M	8 wks.	Not stated	9-19-13	Yes	7 wks.	Br. 1 wk. Art. 7 wks.	6 lb. 10 oz.	.....	No	Yes	Feeding 2 days
2	Plushkel, Robt....	M	9 wks.	Not stated	3- 8-14	Yes	Not stated	Artif.	.....	6 lb. 7 oz.	Yes	No	Feeding
3	Vorhis, Dorothy...	F	5 wks.	Not stated	3-18-14	Not stated	Not stated	Breast	.....	.....	No	Yes	Gastro-Ent.
4	Sax, Lawrence.....	M	10 wks.	Not stated	8- 7-14	Yes	7 wks.	Breast	8 lbs.	6 lb. 8 oz.	No	Yes	Pylorosplasty
5	Barton, Harry.....	M	10 wks.	Yes	11-17-14	Yes	8 wks.	Breast	6 lb. 11 oz.	.....	Yes	No	Gastro-Ent.
6	Coursey, Maurice .	M	6 wks.	Yes	1- 2-15	Yes	6 wks.	Artif.	5 lb. 11 oz.	8 lb. 7 oz.	Yes	No	"
7	Arnold, Howard...	M	6 wks.	Yes	4- 6-15	Yes	Not stated	Artif.	6 lb. 11 oz.	6 lb.	Yes	No	Lavage
8	North, Melvin.....	M	6 wks.	Not stated	11- 5-15	Yes	5 wks.	Art. 4 wks.	6 lb. 7½ oz.	6 lb. 2 oz.	No	Yes	Gastro-Ent.
9	Vorhis, Leon.....	M	6 wks.	Yes	10- 5-17	Yes	10 days	Art. 1 wk.	7 lb. 12 oz.	6 lb. 10 oz.	Yes	No	Lavage
10	Redman, Ella.....	F	7 wks.	Yes	10-30-17	Yes	4½ wks.	Art. 4 wks.	5 lb. 10 oz.	6 lb. 4 oz.	Yes	No	Fredet-Rammstedt
11	Meehan, Edward..	M	2 mos.	Yes	2-12-18	Projeet.	Not stated	Not stated	7 lb. 13 oz.	7 lb. 5 oz.	No	Yes	" "
12	Gilb, Merle.....	M	5 wks.	Yes	9-25-18	Yes	3½ wks.	Breast	7 lb. 7 oz.	7 lb. 1 oz.	Yes	No	" "
13	Ray, Mary.....	F	5 mos.	Yes	2-11-19	Yes	2 mos.	Artif.	11 lb. 4 oz.	12 lb. 4 oz.	Yes	No	Lavage
14	Young, Theodore..	M	5 wks.	Yes	7-15-19	Projeet.	2 days	Breast	7 lb. 9½ oz.	.....	Yes	No	Fredet-Rammstedt
15	Smith, Milton.....	M	10 wks.	Yes	9-29-19	Yes	38 days	Breast	8 lb. 11 oz.	9 lb. 16 oz.	Yes	No	" "
16	Coules, Robt.....	M	2 mos.	Not stated	4-29-20	Yes	1 mo.	Breast	7 lb. 3½ oz.	6 lb. 15½ oz.	Yes	No	" "
17	Sandau, Robt.....	M	6 wks.	Not stated	6-25-20	Yes	Not stated	Breast	9 lb. 6 oz.	9 lb. 11 oz.	Imp.	No	Feeding
18	Lytle, David.....	M	6 wks.	Not stated	1-27-21	Yes–proj.	2 wks.	Breast	4 lb. 14 oz.	.....	No	Yes	Fredet-Rammstedt
19	Aldworth, Robt...	M	3 mos.	Not stated	1-31-21	Yes	1 wk.	Artif.	.....	.....	No	Yes	Feeding
20	Kingsbury, Don...	M	2½ mos.	Yes	2-11-21	Projee.	1 mo.	Breast	10 lb. 15 oz.	9 lb. 10 oz.	Yes	No	"
21	Walsh, Wm.....	M	2 mos.	Yes	4-21-21	Projec.	1 mo.	Artif.	7 lb. 10½ oz.	7 lb. 7½ oz.	Imp.	No	"
22	Lockwood, Jas.....	M	5 wks.	Not stated	4-29-21	Yes	10 days	Artif.	6 lb. 2 oz.	6 lb. 1½ oz.	Imp.	No	"
23	Donrene, Lyle.....	M	5 wks.	Yes	6-14-21	Yes	2 days	Breast	.....	.....	No	Yes	Fredet-Rammstedt
24	DePonce, Edmon..	M	7 wks.	None	6-22-21	Yes	Not stated	Artif.	7 lb. 10 oz.	12 lb. 12 oz.	Yes	No	" "
25	Harris, Robt.....	M	7 wks.	Yes	9-13-21	Yes	2 wks.	Breast	8 lb. 3 oz.	9 lb. 13½ oz.	Yes	No	" "
26	Peterson, Carl.....	M	4 mos.	Yes	9-25-21	Yes	2½ mos.	Artif.	8 lb. 9 oz.	9 lb. 13½ oz.	Yes	No	Feeding
27	Allen, Wm.....	M	7 wks.	Yes	10-12-21	Yes	6 wks.	Breast	7 lb. 4 oz.	6 lb. 15 oz.	Imp.	No	Fredet-Rammstedt
28	Pratt, Virginia....	F	3 wks.	None	10-17-21	Yes	2 wks.	Artif.	6 lb. 5 oz.	5 lb. 6 oz.	No	Yes	Feeding
29	Moloff, Sam.....	M	2 mos.	Yes	11-16-21	Yes	2 wks.	Artif.	7 lb. 7 oz.	8 lb. 2 oz.	Yes	No	"
30	McLaughlin, Chas.	M	1 mo.	Yes	10-31-21	Yes	1 wk.	Artif.	6 lb. 6 oz.	6 lb. 2 oz.	No	Yes	Fredet-Rammstedt
31	Campbell, Don....	M	2 mos.	Yes	11-18-21	Yes	2 mos.	Artif.	7 lb. 12 oz.	7 lb. 14 oz.	No	Yes	" "
32	McConnaeghy, Ed.	M	3 mo.	Yes	11-18-21	Yes	6 days	Artif.	6 lb. 6 oz.	7 lb. 15 oz.	Yes	No	" "
33	Campbell, Ralph..	M	5 wks.	Yes	1-15-22	Yes	2 wks.	Breast	10 lb.	9 lb. 13 oz.	Yes	No	" "
34	Nourse, Jas.....	M	5 wks.	Yes	1-15-22	Yes	10 days	Artif.	7 lb. 1 oz.	9 lb. 4 oz.	Yes	No	" "
35	Porter, Eilcen.....	F	4 wks.	Yes	4-17-22	Yes	9 days	Breast	6 lb. 7 oz.	6 lb. 13 oz.	Imp.	No	" "
36	Bier, Leo.....	M	1 mo.	Yes	5-22-22	Yes	7 days	Breast	8 lb.	.....	No	Yes	" "
37	Gunn, Jack.....	M	7 wks.	Yes	6-26-22	Yes	3 wks.	Breast	6 lb. 5 oz.	7 lb. 3 oz.	Yes	No	" "
38	Bradway, Judson..	M	10 wks.	Yes	8-18-22	Yes	1 mo.	Artif.	8 lb. 9½ oz.	8 lb. 14½ oz.	Yes	No	" "
39	Bowles, John.....	M	3 mos.	Yes	9-16-22	Yes	2½ mos.	Artif.	9 lb. 2 oz.	8 lb. 10 oz.	Unimp	No	Feeding
40	Hackel, Pearl.....	F	10 wks.	Yes	9-23-22	Yes	10 wks.	Artif.	8 lb. 14 oz.	8 lb. 14 oz.	Imp.	No	"
41	Simon, Florence...	F	6 wks.	Not stated	10-31-22	Yes	2½ wks.	Breast	8 lb. 1 oz.	9 lb. 1 oz.	Yes	No	Fredet-Rammstedt
42	Greenberg, Israel..	M	4½ wks.	Not stated	12-15-22	Yes	2½ wks.	Br. 3½ wks.	8 lb.	7 lb. 8 oz.	Yes	No	" "
43	Maier, Wm.....	M	1 mo.	Not stated	12-24-22	Yes	10 days	Breast	.....	.....	Yes	No	" "
44	Casper, Bruce....	M	26 days	Not stated	1-26-23	Yes	11 days	Breast	.....	.....	Yes	No	" "
45	Whitney, R.....	M	25 days	Not stated	4- 9-23	Yes	10 days	Br. 1 wk.	.....	.....	Yes	No	" "
46	Sanger, M.....	M	1 mo.	Not stated	5- 9-23	Yes	5 days	Br. 1 mo.	.....	.....	Yes	No	" "
47	Long, Florence....	F	11 wks.	Not stated	5- 4-23	Yes	6 wks.	Breast	.....	.....	Yes	No	" "

tervention, the chances for recovery are small. With well-proved symptoms, laparotomy is justifiable, and in at least one instance has been successful." Then followed an increase of interest, and an occasional gastro-enterostomy was performed. But the mortality was high. In 1908, Fredet devised a much simpler and better procedure. In 1910, Weber, and in 1912, Rammsted, announced modifications of Fredet's technique. Now the one of general choice is called the Fredet-Rammsted operation.

Pathology—"The lesion of hypertrophic stenosis of the pylorus is hyperplasia of the unstriped muscle cells of the circular coat, while the connective tissue is not increased." A pyloric tumor is always present. It is usually about the size of an olive, though it increases with duration of symptoms. There are no adhesions about it. It is smooth, firm, ivory colored, and cuts like cheese. It encroaches upon the lumen of the canal, and produces an edema of the mucosa by pressure. Following operation by gastro-enterostomy the tumor remains: following the Fredet-Rammsted operation it disappears.

Etiology—There are many theories: it is probably a congenital overgrowth of muscle tissue. There is a case reported by Dent of one in a seven months' old foetus, and several have been seen in babies who died at birth. They are frequently associated with enlarged thymus glands, or other congenital defects—such as imperforate annus or club-foot.

Diagnosis—It is the history of mechanical obstruction—vomiting, which becomes projectile: this is followed by constipation, mucous stools and a rapid loss of weight. There is a visible active peristalsis from left to right. There is a palpable tumor at the region of the pylorus. This tumor can usually be felt, unless the pylorus lies too close to the liver edge. In the great majority of cases, the diagnosis should not be difficult, but in obscure cases aid may be given by fluoroscopic examination, especially when a tumor cannot be felt, and to distinguish between pylorospasm and stenosis, for we cannot believe with Haas that both are the same, and that it is a matter only of degree of spasm. We know that with hypertrophy we have spasm, but frequently, from various cases, we have spasm without hypertrophy.

Treatment—The treatment is logically medical, for there are all degrees of severity of symptoms in this, as in other pathologic conditions. Observation and medical effort is justifiable so long as the baby does well, or has lost not more than 20 per cent of its body weight, but the greatest number of these cases are not seen until late, and many almost moribund, when surgery is the only hope. That is why the mortality is so high, for many of these babies die of starvation—not of the simple surgical procedure.

Operation—There is a great variance of opinion regarding the anaesthesia. Many prefer to operate these cases under local, but it is not our experience—the babies squirm and cry—the intestines and stomach push out of the wound, and cause much annoyance and delay, and increase the shock to the patient. These little patients require little ether. The entire operation should occupy only fifteen to twenty minutes, and we have seen no untoward effects from the general anesthetic.

The incision is upper right rectus. It should not be over two inches in length. The tumor is felt, and by the aid of a blunt, rubber-covered hook the pylorus is brought out through the wound. The tumor is incised longitudinally, along the bloodless area. This incision should be only deep enough to spread sufficiently so that a blunt instrument—preferably a straight forceps—can be inserted and blunt dissection carried on. The tumor tissue tears easily, and soon the gray mucosa is seen bulging upward. This dissection extends the entire length of the tumor, for if any bands are left the result is not accomplished. Sufficient width of muscle layer must be removed to allow the mucosa to bulge into the entire length of the wound. This is easy at the thickened gastric end, but care must be taken, for the duodenal end thins out quickly and is easily torn. We have never sutured any omentum, or done any plastic work to cover the mucosa. The abdominal wound is closed in tiers, and also with silkworm retention sutures, for these wounds need support for about ten days or two weeks.

In post-operative care, the babies are given glucose or salt solution by drip, or under the skin. Feeding is begun one hour after operation—a teaspoonful of warm water alternating with diluted breast milk every two hours. This is increased gradually until by the fourth or fifth day the child is receiving full feedings. Throughout the entire care of these cases the heartiest co-operation is required between pediatrician and surgeon.

Since 1914, we have had forty-seven patients at the Children's Hospital who fall into this group, thirty-three of whom were operated upon. Twelve of those operated upon died; twenty-one recovered; three of the operations were gastro-enterostomies. Of the fourteen others treated medically, two died.

Of the forty-seven patients, there were forty-two boys and five girls. The ages varied from five weeks to four months. Twenty-three were artificially fed; twenty-four were breast fed. Duration of symptoms varied from seven days to ten weeks. Those operated upon had all lost 20 per cent or over of body weight.

Our mortality is too high, and to assign the reason is one of the objects of this paper. Most of our cases are charity ones, and are brought to the hospital nearly moribund. In these we have operated as the only possible thing we could offer. None has died on the table, but several have gone on to death from starvation in a short time. The earlier cases were treated expectantly with atropine and feedings, and became surgical when such treatment failed. We have only lost one of this group with peritonitis due to faulty technique. The diagnosis is usually not difficult if physicians are on the watch. We have used no plates, and only occasionally the fluoroscope for aid in diagnosis. We would recognize more of these cases and save more of these babies if we would watch all sick babies with projectile vomiting, constipation, visible peristalsis, rapid loss of weight, and other usual symptoms of

obstruction. We should keep it in mind from the beginning that these cases may become surgical.

SUMMARY

We have the greatest admiration for the work of Downes, who gave such a stimulus to the study of the subject of Congenital Hypertrophic Pyloric Stenosis. His experiences have been corroborated in our work in many ways:

1. Ether anaesthesia is preferable to local.

2. The Fredet-Rammsted operation is much simpler and more quickly performed than gastro-enterostomy, and therefore the best technique to follow in all cases.

3. In most cases the differentiation between pylorospasm and stenosis is clear, and only in questionable cases should fluoroscopic aid be resorted to. These little patients are too sick to be loaded up with barium unless it is absolutely necessary.

4. Cases under observation should not be allowed to lose too much weight before resorting to surgery; after loss of 20 per cent of body weight these cases become poor risks instead of good. Many come to us so late that we cannot avoid operation, but this is the chief cause of our high mortality. We lost most of our cases during the early years while we were doing gastro-enterostomies or working under local anaesthesia. There will be deaths under the most skillful care, but with the present simpler technique we hope for much better results in the future.

1136 West Sixth Street

DISCUSSION

Emmet Rixford (Stanford Medical School, San Francisco)—In his virile short sentences the author has well epitomized the salient points in the modern management of cases of congenital hypertrophic stenosis of the pylorus. I can only emphasize his statement that thorough co-operation of pediatrician and surgeon is essential, that operation should not be delayed if the condition is not soon ameliorated by the feeding of semi-solid food. The author's experience duplicates that of most surgeons, in that in many of his cases, more particularly the earlier ones, operation was too long delayed.

An important part of the operative technique should be swathing the child's limbs with cotton to lessen the loss of body heat, for these tiny mites are half-starved and chill easily, especially when ether anaesthesia is used. Many surgeons prefer chloroform if they happen to have anaesthetists who are experienced in using that drug. I would also add some emphasis to the point that, in the Fredet-Rammsted operation, it is very easy to open the mucous membrane of the duodenum. Any modification of technique which will save time is desirable, such as closing the abdominal wound with through-and-through sutures. For this I prefer silk, for it is less irritating to the child than silkworm gut unless it be very fine.

E. C. Fleischner, M. D. (350 Post Street, San Francisco)—The importance of an article which calls attention to the salient points in the management of hypertrophic pyloric stenosis in infants cannot be overestimated. There is no condition in infancy in which the successful outcome depends so much upon careful observation and logical treatment as in this disease. From the standpoint of the pediatrist it is unquestionably true that, in the hands of a skillful surgeon, early surgical interference is associated with more satisfactory results than indefinite procrastination and late surgery, even though the latter procedure may spare certain infants the necessity and risk of a laparotomy. This is particularly true in infants who are receiving breast milk, so much so that when a diagnosis of true stenosis has been made in a nursing infant, who, up to the onset of the disease, has been receiving an excellent mother's milk it is better to operate early and conserve the human milk supply than to temporize with various artificial foods, as a result of which the breast milk is lost and frequently operative interference required at a later date. There is one point in connection with the management of these cases to which particular attention should be called and upon which the greatest stress should be laid. Next to the importance of early operative interference in the successful treatment of these cases no one single procedure is as valuable as the plentiful supply of fluid to the tissues of these infants before operation. This is strikingly true in those cases that come to late surgery, but equally important before all laparotomies. These infants suffer as much from dehydration and perhaps even more so than from starvation, and it is possible to obviate the harmful effects of water privation by hypodermoclysis before operation, and in this manner improve tremendously the chances that the child has of recovery. It may be a dangerous generalization because of the difficulty in determining who is a good surgeon and who a mediocre one, but, in the hands of a capable man, early surgery will be productive of better results with less danger than temporizing and late surgical interference.

Edward S. Ruth, M. D. (6548½ Hollywood Boulevard, Los Angeles)—In discussing this paper I would like to confine my remarks to a possible etiological cause of hypertrophic pyloric stenosis.

In all series of hypertrophic pyloric stenosis cases, two factors stand out above all other symptoms and observations. First an overwhelming majority of cases occur in the male infant. In all series from 83 per cent to 95 per cent are in the male. Second, it is a disease which has its onset of symptoms from birth or soon after. These two factors it seems to me are significant from an etiological standpoint. Heretofore the etiological cause has been attributed to some nerve entity that, in some way, was responsible for the enormous overproduction of smooth muscle fibers about the pyloric end of the stomach. A great deal of experimental work has been done by Strouss, Trumpeer, and Bernstein by mechanically obstructing the pylorus, but nothing has been accomplished except for reproducing the classical symptoms of hypertrophic pyloric stenosis.

Scammond, in some of his weight and growth curves of the various organs of the foetus and postnatal life, showed rapid and enormous growth of the uterus up to the time of birth. After birth there is a rapid subinvolution and decrease in the size of the uterus, and its growth that was attained at the time of birth is not again reached until much later in life. This apparently indicates that we have something that stimulates smooth muscle growth during pregnancy. This I have termed a smooth muscle activator.

If the hypothesis is correct that the prenatal growth of the uterus is due to smooth muscle activator, then we may have the same muscle activator at work in the wall of the uterus of the mother, producing the enormous hypertrophy and the hyperplasia that takes place during the period of gestation. Now, assuming that we have a smooth muscle activator at work during pregnancy, I believe that this same activator may also produce hypertrophy and hyperplasia in the smooth muscle in the pylorus and stomach. This is the only place in the human body where we have a large accumulation of smooth muscle fibres. For some time it has been pretty definitely known that the hypertrophy of the pylorus is a prenatal growth, inasmuch as several have been reported in foetuses of seven months of age. Also Kerley reports one in an infant three

days of age. Again, surgeons who have operated upon infants with pyloric stenosis have also suggested that this enormous hypertrophy must begin in prenatal life, because it seemed impossible that such a growth could take place in a few weeks or a few days' time.

This explanation is, of course, hypothetical, but I believe that it has merit.

Chemical Foundation Wins (Propaganda for Reform)—During the late war, our Government seized many German patents on synthetic drugs. Later the Alien Property Custodian, on executive order of President Wilson, sold 4700 German chemical patents to the Chemical Foundation, Inc. This corporation agreed in turn to license any American firm that could present evidence of reliability in chemical manufacture to manufacture under these patents. As a result of this action, physicians may today obtain different brands of arsphenamin instead of one proprietary "salvarsan"—and at competitive prices. The same is true of other useful synthetics. About a year and a half ago, President Harding instructed the Alien Property Custodian to take steps to secure the return of all patents sold to the Chemical Foundation, Inc., on the ground that the price paid was inadequate and the transaction illegal. Suit was instituted by the Government against the Chemical Foundation, Inc., for the recovery of the patents. The suit was won by the Chemical Foundation, Inc. In the decision of the court, it was held that the price was adequate, for the reason that many of the patents were non-workable and that, therefore, because of the financial risk and hazard, the value of the patents "was too slight and problematical to warrant the payment by American citizens of a sum even remotely approximating what they might have been worth to the German owners for their monopolistic purposes." Hence, the bill of complaints filed by the Government was set aside. (Journal A. M. A., January 12, 1924, p. 130.)

A Medical History Society—An organization meeting of medical men and others interested in Medical History was held on Saturday, March 15, at 8 p. m. The meeting was called to order by Doctor Ophuls in the new quarters of the historical section of the Lane Medical Library, on the third floor in the library building.

Emmet Rixford was elected temporary chairman and Henry Mehrtens secretary. Doctor Ophuls outlined the origin of the historical library, calling attention to the latest large addition of books. These were procured by the efforts of Adolph Barkan from Prof. E. Seidel in Meisen, and include 5000 old manuscripts and rare medical books. Continual additions of old and rare medical books are being made to this collection.

It was the opinion of those present that such a society should consist not only of medical men interested in the history of medicine, but that specialists in the allied sciences would also find interest and profit in this collection.

A committee, consisting of Doctors Ophuls (chairman), Evans, P. K. Brown, Hyman and Kerr were appointed to formulate a draft of the organic laws of the society and to get in touch with members of the profession and others who are interested in its ends.

Voltaire's and Frank Crane's Estimate of Physicians Compared—Voltaire once said that "Doctors were men who crammed medicine, about which they knew little, into bodies about which they knew less, to cure diseases about which they knew nothing." Dr. Frank Crane says that regular physicians have done, and are doing more for the human race than all the cults, fads, quacks and pathies put together.—Boston Medical and Surgical Journal, March 6, 1924.

PERFORATIVE APPENDICITIS—APPENDICECTOMY VERSUS DRAINAGE *

By S. M. SPROAT, M. D., Portola, Calif.

In acute perforative appendicitis, with definite abscess formation, there is great temptation to remove the offending member, too often to the detriment of the patient. With a well-walled-off appendiceal abscess, the appendix lying at any portion of its length outside the wall, it is far better surgery to drain the cavity and leave undisturbed the appendix. In the free cases, where nature has made no attempt at limitation of the infection, it is better to remove the offending member, where this can be easily accomplished, but, where protecting walls must be broken down, tissues traumatized with extensive handling, and the infected material disseminated widely, such a procedure is not to the best interests of the patient.

In the cases reported, the following technique was generally employed. The abdomen and anterior rectus sheath was opened over a mid-rectus incision, and the intact muscle freed from its sheath and pulled toward the mid-line. Then, without injury to the muscle, the posterior sheath was opened in the same line as the anterior, and the peritoneum in the same location. When the abdomen is later closed, the intact muscle serves as a support to the abdomen and tends to prevent the herniae, which are so common in these cases. On entering the abdomen, when the omentum was encountered, it was always kept to the left, and the exploration was conducted as low down to the right as possible. Gauze-packs were not employed within the abdomen unless absolutely necessary, but only served to keep the omentum pressed well to the left side of the incision, and thus saved the tissues additional trauma. On encountering an abscess wall, a stitch or two was often placed in the omentum to hold it temporarily to the abdominal wall. The abscess cavity was then entered from its lowest possible point on the right-hand side of the abdomen.

The cavity was carefully explored with the gloved finger and the appendix located from within the abscess cavity itself. Should it lie without the walls in any part, it is in nowise disturbed. The walls of the abscess are also not disturbed in any way. The cavity is thoroughly and carefully explored to determine the presence of any concretion or foreign material that may have been extruded from the appendix. If any such is found, it is removed. There is no irrigation attempted, and it has been my unfailing experience that the more thorough the attempts at cleaning the peritoneum and the more extensive the operative measures in these cases, the poorer the prognosis for the patient.

We all are aware that infection and localized abscess not infrequently follows difficult clean cases that require long and tedious removal of a non-perforative appendix. It is my firm belief that the handling and disturbing of the bowels, omentum, and abdominal contents that is necessary to remove an appendix in abscess cases very often leads to the

* Read before the Twentieth Annual Meeting of the Nevada State Medical Association, Reno, September, 1923.

death of the patient a few days later. In inserting drainage, several points must be noted. First, to drain through a stab wound at the lowest possible point of the cavity. Second, to institute drainage to the portion of the appendix lying within the cavity. The closer to the right the drainage is placed and the freer the initial drainage, the shorter the convalescence.

The disadvantages that are given to this conservative method are, first, that about 20 per cent require secondary operation for the removal of the appendix, as, in this number, further appendiceal trouble is noted after recovery. Second, convalescence is retarded. In regard to the first objection, the removal at an opportune moment may be accomplished at slight surgical risk to the patient, and Murphy has demonstrated that such appendices are usually little more than fibrous cords. Convalescence is usually much more rapid in such cases, if the surgeon is prepared promptly and properly to open up any new abscess cavities, which occasionally develop. The tubes are preferably soft cigarette drains, a large one to the abscess proper and a smaller one contiguous to the appendix, and another through the stab wound to the lowest point of the cavity. Drainage is usually favored by lying on the right side in a semi-Fowler position. It is very important to overcome tissue dehydration by interrupted proctoclysis, hypodermoclysis, and intravenoclysis, and this is forced to tissue saturation during the first forty-eight hours.

Haggard had to reoperate such cases and remove appendix at a later date in about 20 per cent, and this percentage has almost coincided with mine. In other words, such an appendix, when properly treated and drained, will give no further trouble in 80 per cent of the cases. The fact that so many of these cases so treated recover after stormy convalescence convinces one that even a small amount of added operative trauma would have caused death. This added trauma is given when the appendix is removed. Better a safe secondary operation in 20 per cent than a dead patient. The method of Petit, in allowing the right lateral abdominal wall to form one side if possible, has been f llowed. The risk of post-operative hernia, which runs from 12 per cent to 15 per cent in these cases, is minimized as follows: There is no drainage made through the operative wound that is not carried through the split fibres of the rectus muscle. This, I believe, is the great advantage of this incision over the outer rectus incision, and it has been described by Eliot, Ellsworth, and Pickhardt.

I recently operated upon under this method, by local anaesthesia, a man 72 years of age, with a systolic blood pressure of 180 and glycosuria, with recovery. I am convinced that, had adhesions which were present been torn or seriously disturbed, death would have resulted instead of recovery within four weeks. To have removed the appendix, it would have been necessary to seriously disturb these adhesions.

The following is a list of cases operated in the past four years by this method, with time of hospitalization. In these cases, the appendix was allowed to remain and drainage only was instituted.

Mrs. S. B., 18 days; V. K., 17 days; J. L., 25 days; Mrs. W. L., 46 days; C. A., 19 days; F. F., 46 days; W. S., 21 days; M. F., still in hospital; G. T., 27 days; J. H., 47 days; T. A., still in hospital; C. J., 36 days; H. R., 33 days; L. A., 48 days.

Upon three of the above, the appendix was later removed. In one, there was a post-operative hernia, which was repaired. One, after being passed for life insurance, was later operated upon in another hospital for secondary abscess, and the appendix was removed, with death. Average length of hospitalization, 31 days; mortality, none died; 12 operated upon under ether anaesthesia and two under local; one had a fecal fistula, which closed spontaneously.

CONCLUSION

In definite well-walled-off abscess cases of perforative appendicitis, with the appendix lying outside of the abscess walls, the mortality will be lower and it is safer not to remove the appendix.

DISCUSSION

Horace J. Brown (Thoma-Bigelow Building, Reno, Nev.)—Whether to remove the appendix in these cases, or not, seems to be a question open to much discussion. In my own experience, it has been a puzzle whether to leave the appendix and drain, or remove the appendix and drain, with drainage being the only part of the procedure that I feel sure of. I have broken up adhesions in order to remove necrotic appendices, put in generous drains, and had so many good results that I felt confident that that was the method of choice until disaster overtook me and two or three such patients were lost in succession; then I would change to drainage only and feel very secure as long as all got well, but when disaster again overtook me I would change back again. Just at present I am on the "removal" side of the fence, but cannot say that I feel real secure there. Seriously, I believe that the whole problem depends upon the nature and severity of the infection. If we have an abscess, perforated or necrotic appendix that is caused by staphylococci, or colon bacilli as the predominating organism, then I think we can either remove the appendix, breaking up many adhesions in order to do so, or we can simply drain, with the accent on the "drain," and our patients will have a good chance of recovery; but if we have a streptococcic infection to deal with, and it is of the virulent type, I believe that a large percentage of such cases will die, regardless of the treatment used. I have become thoroughly convinced of the value of adequate drainage and believe that too many of us are prone to use drains that are more ornamental than useful. I believe that our patients will fare better if we use large, loosely packed, cigarette drains, and plenty of them, in all pus cases, and I know that I can sleep better when I know that I have an ample drain in any doubtful case.

R. A. Bowdle, M. D. (East Ely, Nev.)—So far as I can recall I have never operated for acute appendicitis without removing the appendix. I see a great many ruptured appendices. It seems to me that, with careful attention to the operative technique, you can remove the appendix with no greater trouble than that incurred in thoroughly exploring the abscess cavity with the glove-finger. I believe that every appendicular abscess should be walled off from the general peritoneal cavity by means of gauze strips. For this purpose I use a gauze packing about one inch wide and twelve inches long; these are moistened, and can be so arranged that, with a minimum of trauma, they will protect the remainder of the abdominal cavity. I think that the rough handling of tissues and the lack of knowledge in knowing

how to reach the caecum is responsible for many deaths that could otherwise be avoided. In the matter of drainage I firmly believe that it is better to drain a case that is questionable than to close one up that subsequently develops an abscess. In addition to the sites of drainage which Sproat uses, I invariably place a cigarette drain down into the right pelvis; this is particularly necessary where you are using the Fowler position following operation. Another very important point in the handling of these cases is the saturation of the patient's system with fluid. As has been so well shown by Crile, this can best be accomplished through hypodermoclysis. My routine is to give the patient at least 3000 cc. during the first twenty-four hours—he is kept well morphinized and in a Fowler position. I use practically the same incision which Sproat describes; occasionally in clean cases in children or young males I will use the muscle-splitting incision of McBurney.

Robert R. Craig, M. D., (Tonopah, Nev.)—More than half of my acute appendicitis cases are ruptured. I have never operated without removing the appendix, and so far have had no catastrophies traceable to this procedure. By gentle, careful technique most appendices can be located, isolated and removed without evisceration or contamination of the whole abdominal cavity. I see no advantage in the right rectus abdominis incision and often the disadvantage of opening into the free peritoneal cavity, instead of into the main objective, for one can to better advantage explore the abscess from the inside than from the outside. I prefer the right external incision, as far out as possible, sometimes opening directly into the abscess extraperitoneally. Through this incision one follows the leads, edematous peritoneum, omentum, and inflamed bowel, and by palpation reaches the abscess cavity, which is evacuated; and explored with the gloved finger, the appendix located and isolated with as little disturbance of protective walls as possible; often when the caecum is adherent the appendix is removed without drawing it into the incision. Three drains are used, one at least a cigarette or rubber tube, placing one in the pelvis, one to the stump of the appendix, and one high to upper limit of infection among the coils of inflamed intestine and omentum. If any part of the appendix lies without the abscess wall, the abscess is usually a very small one and at no point adherent to anterior parietes.

Dr. Sproat (closing)—I believe that conservatism, in not breaking down protective barriers to remove the appendix in acute cases where such barriers exist, is coming into more general usage. The more virulent the infection the greater the need for the absence of tissue trauma, and breaking down natural protective walls. In the majority of these cases the appendix extends outside of these walls, and they are notoriously difficult of removal, even with the greatest possible care.

Lower and Jones of Cleveland, in their paper read before the Section on Surgery, general and abdominal, at the American Medical Association meeting last June, state as follows: "The high operative mortality in cases of acute appendicitis and the postoperative morbidity in cases of chronic appendicitis are, in our opinion, due in large measure to the common belief that in each case the only proper procedure is removal of the appendix." And again, "In acute appendicitis we would emphasize our own adherence to the procedures outlined, and to Crile's principle of confining the primary operative procedure to incision and drainage only; if the appendix is not readily accessible, the removal of the appendix and such other exploration as may be necessary being deferred until the acute state is past."

Since this paper was read, I operated upon a patient with an acute fulminating infection which caused rupture and abscess in thirty-six hours of onset, and within twenty-three days the incision had closed and he had left the hospital. From past experiences with removal, convalescence, I am sure, would have been a stormy one had this been done.

KIDNEY AND URETERAL STONE SURGERY*

By HERMAN L. KRETSCHMER, M. D., Chicago

In presenting for your consideration the problems of kidney stone surgery, I have thought it advisable not to dwell at length on the technical side of the subject nor to burden you with the reading of statistics, but to present some of the difficulties and some of the problems encountered in our every-day work.

It is also advisable, when considering this subject, to include stones in the ureter, since some of the problems of diagnosis and many of the clinical symptoms are present both in kidney stone and stone in the ureter to such an extent that at first an absolute differentiation between them from the clinical history alone is not possible.

At one time it was the opinion that kidney stones, as well as renal infections, were rare in women; but recent intensive studies of this subject have completely disproved this. Not only do kidney and ureteral stones occur in women, but they occur much more frequently than has hitherto been supposed. This applies also to the frequency of occurrence of renal infections. In fact, if certain renal infections which occur only in women are considered—such as pyelitis during and after pregnancy, the greater number of cases of pyelitis of infancy among girl babies as compared with boy babies, the frequency of kidney infections either immediately or remotely after gynecological operations, as well as these infections associated with pathological conditions of the female pelvic organs, one may safely say that kidney infections occur much more frequently in women than in men.

Kidney stone, according to custom, is generally associated with a so-called classical history of renal colic. Not infrequently, however, kidney stones run a silent course. At times there may be no subjective symptoms suggestive of renal stone; again, the only manifestation may be the presence of pus in the urine, and this may be very slight or even absent. As examples of cases in which kidney stones were found, though not suspected, I would like to mention briefly just a few instances. One of our patients complained of frequency of urination, which, because of his age, he attributed to his prostate gland. The final diagnosis was carcinoma of the colon, which necessitated a colostomy for obstruction. Roentgen-ray examination revealed a large stone in the kidney.

Another patient, suffering from tabes for many years, had urinary incontinence. Roentgen-ray examination showed a large solitary kidney stone.

A young woman had the symptoms and signs of renal tuberculosis, the diagnosis being substantiated by means of the cystoscope and the ureteral catheter. A routine Roentgen-ray examination revealed a stone in the tuberculous kidney.

A man of 70 came to the office to have one of his periodical recurring attacks of cystitis treated by vesical irrigations, as had been his custom for many years. Routine Roentgen-ray examination showed

*Read before the Utah State Medical Association, June 22, 1923.

multiple stones in the kidney. Many more cases of this character could be cited, but I believe these few amply illustrate just what is meant by silent stones. No doubt there are many cases of this kind overlooked.

Stones having their origin in the kidney may have one of the following four terminations:

1. The stone may remain in one of the kidney calyces or in the pelvis.

2. The stone may enter the ureter, and in its course become lodged. This usually occurs with predilection at one of the physiological constrictions of the ureter.

3. The stone may pass from the ureter into the bladder, where it may remain and become the nucleus of a bladder stone. If a careful history is elicited in cases of vesical calculi, it is highly probable, in a certain percentage of cases, to obtain a history of a previous attack of renal colic. This may have occurred many years before, so that the patient may have quite forgotten it, unless his attention is specifically called to the fact.

4. The stone may be voided by the patient.

The present high plane which has been attained in the surgical treatment of renal calculi is a more or less direct outgrowth of the accurate methods of diagnosis which are at our command. Briefly, they are: The Roentgen ray, the cystoscope and ureteral catheter, the shadowgraph catheter and pyelography, and functional kidney tests.

Undoubtedly, the single factor which has contributed most to the diagnosis of kidney and ureteral calculi is the Roentgen ray. Its field of usefulness in this work is enriched by the simultaneous employment of the Roentgen ray and the cystoscope, made possible by the introduction of the shadowgraph catheter and pyelography.

While it may be possible, in a large number of cases, to make a diagnosis by means of the Roentgen ray alone, there will always remain a certain number of cases in which pyelography, or the shadowgraph catheter, or both, must be employed. For example, in cases of stone occurring in the renal pelvis, no positive diagnosis can be made without the employment of one or both of these additional aids. The value of the shadowgraph catheter in the diagnosis of stone in the renal pelvis and other conditions has been previously reported.

Not only is the Roentgen ray of value in the diagnosis of calculi, but it is of inestimable importance in watching the progress of a calculus through the ureter. Another example in which a combination of methods is of value is illustrated in cases in which a stone in the renal pelvis or ureter does not show plainly in the roentgenogram. If a solution of collargol is injected into the pelvis or ureter and a second picture is taken, the stone will appear very distinctly on the plate.

In employing the Roentgen ray, it is of prime importance to remember that the exposure should include both kidneys and both ureters. The value of this procedure is apparent when the frequency of bilateral calculi is recalled, as well as the possibility of the presence of stone in one kidney, and the occurrence of one or more stones in the ureter of the same or opposite side. The importance of this procedure is also apparent in cases in which a nephrectomy has been performed for stone, and the patient afterward returns with a stone in the remaining kidney. Under such untoward circumstances it is of more than academic interest to ascertain whether the stone was present before the first operation or whether it formed subsequently.

LIMITATIONS OF THE ROENTGEN RAY

Perhaps the greatest source of error is due to failure to interpret the shadows correctly, and not to failure to demonstrate shadows in the Roentgen plate. As is well known, there are many shadow-producing bodies located outside the urinary tract, which are often interpreted as due to lithiasis. This occurs most frequently in cases of suspected ureteral calculi. The frequency with which patients are sent to a hospital with the diagnosis of stone in the ureter and in which the patient or his physician proudly points to a small shadow as being the offending stone, is known to all. The occurrence of these shadows should always be borne in mind, and when there is any doubt as to their nature and location, the shadowgraph catheter should be employed. Although in a large number of cases this procedure is of assistance, there remain, unfortunately, a small number of cases in which even this method fails to give the desired information. It is my opinion that this small percentage can be reduced still further by resorting to a procedure, previously described, in which a double exposure upon a single plate is made with a shift in the tube.

The routine use of the Roentgen ray after operation for renal stone has not become an established procedure, although it deserves to be. While this procedure will often put the surgeon in the embarrassing position of showing that he has failed to remove all the stones, it will, on the other hand, yield data which will have a direct bearing on the percentage of recurrences, a subject which at present is deserving of closer study than it has received in the past. I can recall several instances in which there is no doubt that all the stones were not removed at the primary operation, but nevertheless were classified under recurrences, thereby belittling the operation.

Not infrequently the Roentgen ray fails to yield the desired information. This may be due to the following factors:

1. The inherent limitations of any diagnostic measure.

2. Errors in the Roentgen technique due purely to the roentgenologist.

3. The calculus may be situated in so peculiar a manner that it is overlooked when the plate is read. This occurs when a small calculus is situated behind the rib, over a transverse process, over the ilium or when the plate is so placed that the stone comes just at the edge of the plate.

4. On account of the chemical nature of the stone, its demonstration by means of the Roentgen ray is impossible.

5. The stone may have been passed.

CYSTOSCOPY AND URETERAL CATHETERIZATION

While these two diagnostic aids cannot establish a positive diagnosis in each case of renal or ureteral calculus, they can, in a definite number of cases, yield information from which a diagnosis may be made or surmised. By their employment, it is possible in nearly all cases to locate the source of the pathological elements found in the urine, such as blood or pus. In renal stone associated with profuse hemorrhage, the origin of the blood may be determined by means of cystoscopy and ureteral catheterization; and also in descending ureteral stone associated with colic, changes may often be seen about the ureteral orifice of the corresponding side. Mention should be made here of the wax-tipped catheter. If positive information is obtained by its use, one may venture the diagnosis of stone; on the other hand, if the result of this examination is negative, the presence of stone should not be excluded.

FUNCTIONAL TESTS

After the diagnosis of stone has been made and the treatment outlined, the condition of the opposite kidney should engage our attention, and especially whether the kidney is present or absent. This important point deserves due consideration in each case, no matter how simple the contemplated operative procedure may be. Not infrequently a simple operation is decided upon, but because of complications arising in its course the removal of the kidney is necessary. In such an instance, if the presence of the opposite kidney has previously been determined and its functional capacity estimated, it can readily be seen how decidedly comforting to the operator this must be.

Of the various functional tests which have been advised, the phenolsulphonepthalein test has been most frequently used, and it has answered my purpose very well. Many objections have been advanced against complete reliance upon dye tests. One should not rely altogether upon the result of the dye test, but should include careful examination of the urine, both chemically and bacteriologically.

TREATMENT

Before taking up the treatment of kidney stones, I shall briefly discuss the treatment of stones in the ureter.

In a general way, the treatment of ureteral calculi passed through three stages: The first stage may be represented by the period immediately after the introduction of the Roentgen rays. At that time many of the now well-recognized extraureteral shadow-producing bodies were erroneously diagnosed as calculi, and patients were unnecessarily operated upon. The second stage may be represented by the period immediately following the introduction of the shadowgraph catheter, by means of which more accurate diagnoses were made and the number of unnecessary operations decidedly reduced. The consensus of opinion at that time was that the treatment of ureteral calculi was surgical, and the operation employed was the extraperitoneal ureterotomy. The third period may be represented by our present-day views, and is characterized by the swing of the pendulum in the opposite direction, so that at the present time the keynote is conservatism. In other words, one resorts to operation only after a prolonged, careful and conscientious use of the non-operative measures fails to accomplish removal of the stone.

These non-operative measures consist in the use of intravesical manipulations with the cystoscope. Briefly considered they are: First, dilatation of the ureteral orifice, either with a catheter or with a ureteral dilator, in order to stretch the ureteral orifice so that the stone may be allowed to pass. Where this fails and sufficient dilatation cannot be obtained, the ureteral orifice may be enlarged by slitting it with the scissors. In cases in which the stone is smaller than the ureteral orifice and situated high above the bladder in the ureter, the stone may be dislodged by the ureteral catheter. This may be followed by intraureteral injections of local anesthesia, succeeded by the injection of oil. To aid in dilating the ureter, injections into it of a solution of papaverin have been advised.

Experience has proved that by far the largest number of stones in the ureter can be handled in this way. In the remaining small number which do not respond to repeated applications of this form of treatment, advising an open operation may be justifiable.

INDICATIONS FOR OPERATION

1. Cases in which there is a vital indication to operate. Under this head, one may consider cases of anuria, acute pyelonephritic infection, profuse hemorrhage, and conditions of retention which sooner or later lead to atrophy of the kidney.

2. Cases in which operation must be advised, but in which there is no immediate danger as regards the life of the patient or the function of the kidney. To this group belong the cases associated with chronic pyelitis, repeated attacks of colic without the passage of stone, pain or discomfort in the kidney area and the presence of stone in the ureter, which do not respond to non-operative treatment.

3. Cases in which intervention is unnecessary. In this group, cases may be considered which can be treated medically. Briefly, these are cases characterized by repeated attacks of colic associated with the passage of small stones, in which the urine is not infected and in which the Roentgen ray does not reveal large stones.

The three operative procedures in the surgical removal of kidney stone are pyelotomy, nephrotomy, and nephrectomy.

Pyelotomy, in cases in which this procedure is suitable, is simple and safe, involving little or no hemorrhage, and its great advantage over other operations is that there is no mutilation of kidney tissue, which occurs to a certain extent when nephrotomy is carried out. Pyelotomy, furthermore, prevents the occurrence of hemorrhage from the kidney into the renal pelvis, which often results in the bladder becoming distended with large blood-clots, so that the patient suffers a great deal of pain, and considerable inconvenience is experienced in freeing the bladder from these clots. The essentials for success in pyelotomy are:

1. In selection of cases to be guided by the re-

sults of the Roentgen ray and possibly by the pyelographic findings.

2. The limitations of its use to pelvic stones.

3. Its employment in cases in which there is no infection, or at best only an infection of mild degree.

4. The deliverance of the kidney.

5. The avoidance of unnecessary trauma to the pelvis.

6. The prevention of injury to the blood supply of the kidney pelvis.

Before incising the pelvis, the peripelvic fat should be carefully separated. Occasionally an accessory pelvic vessel may be present, and unless this is recognized and avoided, the patient may have a certain amount of hemorrhage. Great care should be used in performing pyelotomy so as not to tear the renal pelvis, not only because of the danger of hemorrhage, but also because large and irregular tears of the renal pelvis have been followed by persistent sinus formation. On account of the more or less limited field of operation, it is particularly desirable, before closing the incision in the pelvis, to be sure that the stone removed is intact and that no fragments have been left behind. After the stone or stones have been removed, the incision is closed with fine catgut, and then the peripelvic fat is sutured over the incision with one or two catgut sutures.

Nephrolithotomy—In cases in which the stone is too large to be removed through the pyelotomy incision or in which the stones extend into the calyces, branching in various directions, and in instances in which the pedicle is very short and in which there is a good deal of perirenal inflammation, and the kidney cannot therefore be delivered, nephrolithotomy should be done. There are instances in which a pyelotomy is the operation decided upon, having determined upon this procedure from the roentgenogram, but one or several of the aforementioned conditions being found, nephrolithotomy is the only course open. At times it may happen that a calculus must be removed with the kidney remaining in situ.

After the kidney has been delivered into the wound, it should be carefully palpated for the presence of stone; that is, the stone should be definitely located before cutting into the kidney. This may not always be possible when the calculi are very small; yet, when possible, it should always be done. Palpation of the renal pelvis may be carried out at the same time.

In cases in which the stone is seen on the roentgenogram but cannot be felt, some surgeons are in the habit of needling the kidney. This procedure is advocated by some, but condemned by many, chiefly for the reason that if a hard nodule is felt and is a calculus, it must be cut down upon anyway. If nothing is felt by needling, no one would be satisfied by the limited information obtained in this way; hence, an exploratory incision must be resorted to by all means.

If the calculus can be felt in the substance of the kidney, it should be exposed by incision, either on the convex border of the kidney, or, if the stone is near the anterior or posterior surface of the kidney, it may be cut down upon directly.

The nephrotomy incision is usually made in the convex border a little nearer the posterior portion of the convexity than the anterior, since there is less danger of injuring the vessels. After the incision has been made, the interior may be examined with the finger, or the calculus may be directly removed with the aid of the forceps. The stone must be carefully examined to ascertain whether or not it is complete, whether or not facets are present, in order that calculi may not be overlooked.

The further treatment of the nephrotomy wound will depend upon several factors, the chief of which is infection. When infection is present, it is often advisable to insert a tube for drainage, although this procedure has been criticized because of the danger of hemorrhage which may result.

Hemorrhage is one of the more important complications following nephrotomy, and has often proved so serious that a secondary nephrectomy was necessary in order to save the life of the patient. When the hemorrhage occurs at the time of nephrotomy, it can usually be controlled by grasping the pedicle when an inspection of the field is effected. Occasionally a spurting artery is seen that can be caught with the forceps. Often when the oozing appears to be general, it may be controlled by hot pads. As a rule, the sutures which close a nephrotomy incision suffice to control the bleeding.

Continued post-operative hemorrhage renders the operator absolutely helpless. As previously mentioned, the bleeding continues, the hemoglobin goes down steadily, the patient's mucous membranes become pale; hence, a nephrectomy must be done to save the life of the patient. Under these untoward circumstances, one always feels more comfortable if the status of the remaining kidney has been definitely determined before operation.

COMPLICATIONS FOLLOWING NEPHROTOMY

Urinary Sinus—The urinary sinus usually closes in a few days or a week, but occasionally the urine continues to be discharged for three weeks. If, however, a sinus persists for a longer period, closing it by passing a ureteral catheter and allowing the catheter to remain *in situ* may be attempted. However, if ureteral catheter draining fails to give relief, some exploratory operative procedure should be done to determine the reason for the persistence of the sinus.

Suppurating Sinus—The continued discharge of pus from the renal sinus should at once direct our attention to the fact that a suppurating process is still going on within the kidney. In attempting to close the sinus by local treatment, possible organic factors for keeping the sinus open should not be overlooked; therefore, local treatment should not be continued too long. As a rule, the reason for the persistence of a sinus remaining open can be found, and not infrequently this is due to a calculus which has formed after the operation, or has been overlooked at the time of the operation, as well as due to a sponge.

Nephrectomy—Primary nephrectomy for stone is

less frequently done than either of the two previously mentioned operations. As a primary operation it is resorted to in cases of stone associated with severe infection, tumor, or tuberculosis. In these cases, results are very much better following nephrectomy than nephrotomy, provided, of course, that the other kidney is present and functioning as discussed above. Secondary nephrectomy must be resorted to in cases of persistent fistula after other operative measures have failed to effect a cure; in cases of recurrence of stone, persistent infection of the kidney after the primary removal of calculi, and for the relief of uncontrolled secondary hemorrhage following nephrotomy or pyelotomy.

Nephrectomy is the most serious of the operative measures for the relief of stone, but the ultimate result, as regards recurrences, is better than with the other two operative procedures.

Hemorrhage is one of the most serious complications of nephrectomy. It usually occurs after the kidney has been cut from its pedicle and the clamp removed, but it may be due to other causes, such as failure to include the vessels in the ligature, placing the second ligature over the first, which may render the first one ineffective, and cutting the ligature when the kidney is removed. Slight oozing can usually be controlled with hot pads, but large hemorrhages are difficult to manage, since the wound rapidly fills with blood so that one cannot see. When hemorrhage occurs, the clots should be wiped out with hot pads and the site of the bleeding found. If this can be done, the bleeding vessel should be grasped with a pair of forceps and ligated. If the bleeding point cannot be seen, grasping the pedicle and exercising firm pressure with the fingers may be successful. This procedure will often allow the clots to be removed; thereby time for examination is gained and also knowledge just where the clamp should be applied. In instances where the operator attempts to stop profuse hemorrhage, injuries to the bowel by means of the clamp are prone to occur. At times the hemorrhage occurs from an accessory vessel; and, although this may be profuse, it never reaches the same proportions as does a hemorrhage from the pedicle. Bleeding may also occur from the vena cava, as a result of direct injury during operation.

(122 South Michigan Avenue.)

Neuro-arthropathies: A Consideration of the Etiology and General Characteristics—It is the belief of Herman B. Phillips and Charles Rosenheck, New York (Journal A. M. A., January 5, 1924), that neuro-arthropathies caused by peripheral nerve disease or injury or other factors not definitely understood may occur with more frequency than is usually believed. These neuro-arthropathies are possibly misinterpreted, on account of the absence of demonstrable disease of the central nervous system. In the wake of such misinterpretation, extensive joint operations may be performed unnecessarily, as in one case cited. The possibility of neuro-arthropathy should always be considered in obscure or ill-defined joint manifestations, even in the absence of cord disease. The etiology may be found in disturbances of the peripheral neural apparatus or other hitherto unknown factors.

JUSTIFICATION FOR STERILIZATION BY EITHER SURGICAL OR RADIOLOGICAL METHODS

By REX DUNCAN, M. D., Los Angeles, California

The literature is abundant with most excellent articles dealing with the causes and treatment of sterility, but much less of scientific merit has been published pertaining to the justification for sterilization. Indication for sterilization broadly may be included under two heads. First, medical or those in which, because of some pathological condition in the woman, it is necessary to prevent pregnancy that her life may not be endangered. In advanced pulmonary tuberculosis, nephritis, diabetes, advanced cardiac lesions or other constitutional disturbances which would render pregnancy dangerous to the life of the woman, sterilization is indicated. In uterine cancer, fibroids, certain inflammatory conditions of the pelvic organ and other conditions in which sterilization would necessarily follow, appropriate treatment is undoubtedly justified. In women with deformed pelves or other conditions where delivery would require cesarian section or other dangerous operative procedure, it is a question to be determined by the patient, family, and physician. Statistical studies show quite clearly that pregnancy favors the recurrence of malignant diseases in breast cancer and malignant diseases of the genital organs, and while these conditions quite commonly occur after the child-bearing period, sterilization is undoubtedly indicated. Without entering into a detailed discussion of the numerous pathological conditions in which it might be indicated, it would seem that the woman's life should receive first consideration and it is, therefore, justifiable to produce sterilization in any of those conditions in which it might be demonstrated after proper consultation that pregnancy would endanger the life of the woman.

Secondly, the justification of sterilization for social or economic reasons or from a purely eugenic standpoint are subjects in which there is a great variance of opinion and permissible of considerable discussion. The attitude regarding sterilization for social reasons is rapidly changing. Undoubtedly, it is worthy of more thought. However, further discussion will be omitted here.

It is, of course, a well-established fact that sterilization may be produced either by surgical or radiological methods. The method to be chosen necessarily depends somewhat upon the pathological conditions rendering such a measure justifiable or permissible, the numerous indications for which need not be outlined here. Sterility may be produced by a single intra-uterine application of 2500 or more millicurie hours of radium which may be given in from four to 24 hours, depending upon the quantity of radium used or by the use of X-ray treatment over the pelvis, using such technique that the ovaries will receive approximately an erythema skin dose. This may be accomplished with high voltage X-ray equipment in one or two applications totaling approximately one hour.

While radium is commonly employed in the treatment of certain pathological conditions of the pelvis without producing sterility, sterilization pro-

duced by means of either X-ray or radium produces an amenorrhea and is associated with the usual menopausal changes. The nervous manifestations, however, are, as a rule, less prolonged and less severe than the normal or following radical surgical procedure.

Radium or X-ray is contra-indicated in the presence of acute or subacute pelvis infection. On the other hand, radiological methods are particularly appropriate in cases of severe tuberculosis or other local or constitutional diseases that would render the individual a poor surgical risk.

Because of the safety and simplicity of sterilization by radiological methods, this procedure is to be preferred to surgical means in all cases excepting those in which abdominal surgery may be indicated for the correction of some existing pathological condition, acute pelvis infection or in young women where menopausal changes are not desired.

Lay Advertising and Child Welfare — Under this heading, Frank V. Bogert (N. Y. State Journal of Medicine) says: "Never has the danger of a little knowledge been more prettily demonstrated than in the matter of public education in regard to diet. Producers of proprietary foodstuffs, in exploiting their wares, have reached a point so close to the limits of honesty that their pernicious teachings must be reckoned with in the promotion of public health. More especially does this concern the worker among children, who, dealing with the more delicate digestive apparatus of the young, an apparatus which must be protected and developed for the future, also deals with a group more vulnerable to temptation and managed dietetically by overzealous guardians. To the average mother, today, the one important consideration is to obtain the ingestion of sufficient calories, vitamines, iron, and salts by tempting, urging, coaxing, and force without regard to needs and ability to assimilate. The intemperate prohibitionist likes to believe that one can't eat too much. Weight is too often made the standard of health and the undernourishment of overfeeding is treated by more food. . . .

Every pernicious dietetic habit that we have been endeavoring for years, and with some success, to eliminate is openly encouraged. Overfeeding, underfeeding, between-meals feeding, unintelligent stimulation of the appetite, candy and sweet-eating in excess, all, are advocated by the selfish world of business in order to increase consumption. . . .

When we know that the sensible method of establishing a normal appetite is to keep food away until it is desired, our patients are advised to eat catsup to make the foods they 'like best taste better' and a brand of soups is advertised as 'your appetite's temptation.' Tonics, condiments and stimulating sauces are too commonly given to children because they are relished and because they increase food intake, and, in these days of undernourishment, justification is gladly found and the practice continued to the child's undoing."

The Business Side of the Doctor's Service—"From January 1, 1924," says a St. Louis doctor in a circular letter to his patients, "my practice will be on a business basis.

"I am compelled to pay office rent, drug bills, phone, light, gas, tires, etc., monthly and **promptly.** In consequence, I do not deem it just that I should render my services and supply drugs gratis or on an indefinite payment. Patients unable to pay, mentioning the fact, will be treated as promptly as before; those **able** to pay, and who **do not,** will oblige me by not calling me."

THE EVOLUTION OF ROENTGEN THERAPY IN HIGHER VOLTAGES *

By ALBERT SOILAND, M. D., Los Angeles

Two years have now elapsed since the present short-wave form of X-rays came into radiological favor in America, and it is now perhaps timely to venture some comments upon this theme.

For a great many years our most successful field of radiotherapy has been in lesions of the skin and subcutaneous tissues. For this work every conceivable type of electrical generator imaginable has been employed. Anything which would make a vacuum tube turn pink, blue, or green has been used with which to treat all ills that are the heritage of mankind. Little by little the pink and the blue tubes were placed in the discard, and gradually the intrepid radiologist essayed to delve deeply into the human anatomy, and finally succeeded in demonstrating beyond the possibility of a doubt that physiological and pathological response could be elicited upon structures below the body's exterior. Finally came some order out of chaos, and attempted measurements of all electrical factors entering into X-ray production brought forth a tabulation of units, destined to place Roentgen ray treatment upon a relatively scientific basis. From an uncertain and flickering voltage, giving rise to a phantom X-ray stream, there has come today a powerful generator with almost unbelievable capacity delivering through specially designed hot cathode tubes a force unseen and almost unknown, the remote effects of which we are all struggling to direct and understand. This progress, from our first feeble attempts to radiate the human skin surface to our present ability, to saturate the innermost recesses of the human body, has all been accomplished in the comparatively brief space of twenty-five years. You all know the many interesting periods of transition, of doubt, of struggles, of superstition—yes, even of death among some of our martyred pioneers—yet the science has emerged triumphant, and that which once eluded us is fast becoming our willing slave.

The present discussion will deal with the problems of deep therapy and the evolution of the higher voltages. We will, therefore, omit reference to skin and superficial radiation, and state briefly that it is now quite possible, by varying the factors of our operation, to inundate a desired depth field, with the knowledge that in this field a fairly constant effect of the energy of radiation may be obtained.

For the purpose of illustration, we may roughly state that, with a voltage of 200,000 at a 50 centimeter skin distance and with 10 millimeters of aluminum filter, effective radiation may be apparent four inches below the skin surface. With the same voltage and 15 millimeters of aluminum filter, an efficient but smaller amount of energy of radiation may be delivered six inches below the skin surface. With 20 millimeters of aluminum filter, a still smaller quantity of effective rays reach an eight-inch distance below the skin. This table is, of course, only relative, but it will serve to illustrate

* Presented to the Section on Radiology at the Fifty-second Annual Session of the California Medical Association, San Francisco, June, 1923.

the point. Rays which are not absorbed have no demonstrable action. It is only at the point of absorption that the ray gives off its energy; in other words, its corpuscular energy is dissipated with a subsequent cellular reaction, the termination of which usually results in a restored normal function.

It has been frequently stated that it did not appear logical to treat something six or eight inches below the surface of the body when the rays had to traverse so much normal tissue in order to reach the lesion, and that the intervening tissue must suffer by virtue of bearing the brunt of the attack.

While we are by no means agreed on the modus operandi of the X-ray stream, it has been demonstrated time and time again, both clinically and microscopically, that specialized cells, those of irregular formation such as the tumor type, are particularly susceptible to short-wave forms of radiation and that no appreciable lasting effect occurs in normal cells in dosage sufficiently heavy to transform completely those of pathological habit. Careful laboratory experiments and investigations have shown that only those rays which are absorbed by the tissues are capable of producing biological effects, and this knowledge has enabled the laying down of formulae which permit us to approach a therapeutic rationale.

It is to be regretted that many surgeons still look upon radiation as a rival, or something to be avoided. Surgery and radiation must work hand in hand, and one support the other in nearly all lesions which may be attacked with the prospect of cure. Surgery has reached a plane of perfection which is undeniable and which has, up to the present time, been the most acceptable method of treatment in many cases where other methods, including radiation, are failures. Yet one must admit that surgery is essentially limited to conditions where the necessity for mechanical interference or manipulation is permissible. On the other hand, radiation is a reactive process which cannot be considered mechanical in any sense of the word. It possesses properties which are reactionary, destructive, and reconstructive, acting on each individual cell in direct ratio to the inherent biochemic response and reactions of living protoplasm, and the effect of an erythema dose extends over a long period of time.

As a means of developing high voltage, the alternating current transformer, with either arms or disk, is still the instrument of general use. While this type of rectification is not ideal, it seems to have stood the test of time fairly well, the greatest drawback being the peak surge phenomenon, which is so disastrous to the life of the tubes. There is, under close investigation, the possibility of making available for Roentgen ray work a direct current generator, which, if successful, will simplify some of our present problems. Deep therapy will, in all probability, develop rather slowly and this is a point in its favor.

The problems connected with the purchase, installation, and use of a deep power plant are great enough to prohibit promiscuous broadcasting of such units. No one who is not thoroughly interested in the work will care to incur the expense and responsibility of an adequate installation. While the monetary consideration of a deep therapy plant is of some concern, this sinks into insignificance when we contemplate the dangers associated with a live line of high voltage electrical stress, sufficient to destroy human life by a careless approach to the circuit. We have become so accustomed to play around our eight or ten-inch apparatus with impunity, ordinarily with no more serious results than a bad temporary shock or a small skin blister, that, unless our attention is sharply called to the new dangers, the consequences may be disastrous.

Up to the present, there is probably no pathological condition in existence that some enthusiastic radiologist has not attempted to treat, and while many of these attempts have been futile and the reason for their institution may have bordered on the ridiculous, yet the pertinent fact remains that radiology is daily enlarging its scope of usefulness. There is perhaps nothing in the entire therapeutic armamentarium which can approach, even in a small degree, the range of physiological action and reaction of the energy of radiation, and when we stop to contemplate the enormous scale of wave lengths at our command, of which we have as yet only fragmentary knowledge, our sober duty to this wonderful science becomes apparent. What the end-result of the investigation in our present-day high voltage work will be is not easily foretold. Refinement of technique, accuracy of dosage, greater care in our clinical and laboratory diagnoses, with a standardization of our individual efforts, will surely engender confidence and respect for this strictly medical specialty.

Can we, at this time, come to a conclusion as to the limit of useful voltage for generating short-wave X-rays? The writer believes that, with our present conception of the liberation of the energy of radiation, 300,000 volts would be sufficient for all purposes; in other words, all things being equal and with tubes constituted to functionate under a voltage of 300,000, the energy would be so enormous, both in quantity and quality, that to harness the useful stream in such an output would be difficult and perhaps dangerous. This statement is based purely upon the observation of the action of the daily serviceable voltage not in excess of 220,000. The writer ventures the opinion that a stream of short-wave electrons of more than 250,000 volts would, in many instances, overshoot the mark. If this is true, higher voltages are perhaps unnecessary. On the other hand, if, with a maintained tension of say 250 kilovolts, we were able to use amperage of high degree, so that the quantity of the stream could be substantially increased, it might be possible, substantially, to increase the beneficial effects of short-wave therapy. This procedure would also permit the simultaneous operation of a number of tubes limited only to the available capacity of the space in the laboratory and the demand for this type of work. The writer feels that it would be distinctly inadvisable, however, to attempt a shorter wave force of radiation until it has been thoroughly

demonstrated what the use and limitations of the present available output may be.

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DISCUSSION

Alanson Weeks, M. D. (350 Post, Street, San Francisco) — I remember ten years ago or more Howard Ruggles making the statement that, if ever a nineteen-inch spark gap could be procured, deep X-ray therapy would become a fact.

It has been my privilege since Rehfisch installed the first deep power plant in this city at St. Luke's Hospital to watch the effects of such deep radiation treatment. The results are improving sufficiently to further the hope of future real usefulness. The actual destruction of the mucous membrane of the bowel when deep radiation is used for abdominal disease and the bad results of too much foreign protein being turned loose by overdosage have gradually lessened.

I trust I am speaking for all surgeons when I tell Soiland that there can be no question that surgery and radiation must work hand in hand, and that we surgeons will be grateful for the day when radiation or any other therapeutic measure shall take our place.

It is a charming thing to see a man so thoroughly wrapped up in his specialty, so modest in his claims for the same. He gives us much hope, but no false hopes.

Howard E. Ruggles, M. D. (135 Stockton Street, San Francisco) — Soiland has conservatively and completely stated the case for deep therapy as we know it at present. Further advances in this work will come with improved apparatus for which we are dependent upon the research laboratories of our universities and electric companies and with increasing experience in the application of our available equipment to a large amount of clinical material which must be carefully studied over a period of years.

The results so far are encouraging and occasionally brilliant.

Dr. Soiland (closing)—The discussion by Weeks and Ruggles is greatly appreciated, and it is a pleasure to know that they coincide with the thoughts expressed in the article.

My main object in presenting this theme before the section has been to make haste slowly in the deep voltage therapy; not to condemn because of damage alleged to have resulted from its use, neither to make extravagant claims for results, which time has not yet permitted us to definitely determine. There can be no question that short-wave X-rays are a distinct advancement in the field of radiation therapy.

A Valuable Manipulation for the Relief of Constipation—The procedure advocated by Herbert B. Whitney, Denver (Journal A. M. A., January 5, 1924), is applicable only to the evacuation of a fecal mass in the lower rectum, close to the anal sphincter, but hard to move because of its size, or density, or both. It consists in a remolding of the mass by external digital pressure. Sitting in the usual posture at stool, the patient, with the second and third fingers of the left hand, carried down from behind, presses with the necessary degree of force on the thin and distended tissues between the coccyx and anus, and through this on the fecal mass directly beneath. The pressure exerted is not for the purpose of expelling the mass, but solely of changing its shape. As soon as this is accomplished, the usual abdominal pressure is quickly effective. The digital pressure must always be considerable, sometimes excessive; but even the latter is said to be both painless and harmless, and the ease and rapidity with which the favorable change of contour is effected, and evacuation follows, is often little short of marvelous.

THE ROLE OF ALKALIES IN TREATMENT *

By ANSTRUTHER DAVIDSON, M. D., Los Angeles

Nature's one object in life is to keep the blood stream pure, and the salts therein are kept in fixed proportions to that end. In the healthy individual the blood and tissues are alkaline, the chief salts Na. K. Cal. P. are all present in fixed quantities, and nature, in disease, draws from the food or tissues whatever is available to keep the tissues alkaline. When the tissues become acid throughout, death, as you know, ensues.

All the secretions, with one exception, are alkaline; all our excretions are acid. The one notable exception is the secretion of HCL by the stomach. It is usually presumed that HCL is secreted for the sole purpose of aiding the digestion of meat products, but that is only part of its functions. This acid is the medium whereby the Na, Cal, and other salts are rendered soluble and capable of absorption by the blood stream. Hyperchlorhydria, so familiar a feature in digestive troubles, is not the result of irritation; it is a compensatory process whereby nature seeks not only to eliminate the excess of acid in the blood, but attempts to dissolve more salts to neutralize that acidity and break the vicious circle already established.

In the formative period of youth hyperacidity is a serious factor. When the food is well balanced, of course, this does not occur. The chief causes of hyperacidity are the excessive use of carbohydrates and sugars. When acidity of tissues destroys the alkaline balance of the blood, sickness is prone to supervene. The administration of alkalies in fevers and catarrhal inflammations was established empirically ages ago. The standard remedies of our predecessors were citrate of potash and liquor ammonia acetatis or some such alkali, and I know of no better now, though I think the tendency of many practitioners is to prescribe sedatives and antipyretics.

There is no more certain method of aborting an acute coryza than by administering bicarbonate of soda in large doses on the first indication of an attack. In the late influenza epidemic, I have every reason to believe, from my observation and experience, that those individuals who daily took enough soda to render the urine alkaline nearly invariably escaped the disease. At one time two of my students who invariably suffered from poison oak tried the experiment of keeping their urine alkaline when on mountain trips, and for the first time were able to return unaffected. Acidity of the tissues seems to make them more vulnerable, the alkalies restore the blood to normal and thereby increases their vital resistance. During the war many soldiers suffered from severe form sof seborrheic eczema that proved quite resistant to ordinary remedies. One medical officer succeeded in curing these cases by the administration of alkalies. Sodium bicarbonate was most commonly used, but in some cases one pound a day of this was given without altering the reaction of the urine. In such instances, one can usually alkalinize the urine with the fixed carbonates. Soda has

* Read before the Los Angeles County Medical Association November 1, 1923.

another value besides alkalinization; it is a solvent of colloids and it thus probably aids in any bacterial invasion by rendering the precipitins more soluble. In the administration of large doses of alkali, some discussion has arisen as to the possibility of such doses causing a condition of alkalosis that might prove serious. That such a condition has been established by intravenous injections in animals is evident, but that such a condition can arise in ordinary administration is doubtful. Even in experimental work it is just possible that the sodium and not the alkali is at fault as sodium in large doses is poisonous.

Copper and manganese are among the rarer of the blood salts, and may be of the nature of catalysts. When ringworm attacks the skin it spreads in increasing circles, and on the parts invaded it seldom returns. It is evident in this case that the fungus exhausts the tissues of some chemical necessary for its growth. That chemical is probably manganese, as we find it has a marked action on the growth of the closely related aspergillus.

Of the other salts of the blood, the most important in quantity at least are the Mg. P. and Cal. compounds. All are important constituents of the bony framework, but have probably many other values. The Mg. and P. have not been as carefully studied as the Cal., so reference to them will be omitted.

Calcium, on account of its influence on coagulation and reparation of tissue, has always been a subject of interest to the profession. Calcium is never found in destructive lesions such as carcinoma. The calcium in the blood of the normal individual exists in both the ionic and combined states. The salt is chiefly derived from milk and vegetables, especially in raw form. Boiling reduces the amount in vegetables to nearly half; whether it does so with milk I have not been able to ascertain; if it does this may, in a measure, explain some of the diverse results obtained in experimental work on rickets. The excess calcium is excreted by the bowels; very little passes with the urine.

In tuberculosis calcium is the chief salt concerned in the healing and circumscribing process. It was long ago noted that workers around lime-kilns were practically immune to tuberculosis. Nearly everyone is presumed to have acquired tuberculosis at the age of puberty. At that time, when the demands of puberty are straining nature to the limit to supply the necessary ingredients for the perfect development of the skeletal structures, if the individual, by excess of carbohydrates in his diet, develops acidity of his tissues, nature, in the effort to counteract this, does one of two things: it either stunts the individual growth or, failing to do so, draws from the tissues calcium enough to keep the blood stream normal. Let me illustrate this by the behavior of grain. When we have a dry season nature matures the grain rapidly; she reduces the length and strength of the stalk and limits the number of the grains, but not their quality, as the interference with the reproductive quality would ultimately destroy the species. Nature, as you know, cares nothing for the individual, but jealously preserves the type. It is the same with man. When transplanted to the slums his children under the adverse conditions will be smaller of frame and mature earlier. If on the other hand development continues or sickness or some other factor interferes, the blood, in its efforts to maintain the alkaline balance, will draw from the tissues, bones, and teeth the necessary salts available. When this is done the calcium necessary to defend the body from tuberculosis is withdrawn and active tuberculosis may result. If in the growing period the individual is liberally supplied with meat, hyperacidity is less likely to develop. The carbohydrates have not the combining power for acids that proteins have. When fixed alkalies are not available to correct the acidity, ammonia is drawn from the amino-acids to supply the want; the mucous membrane of the stomach and bowels contain large amounts of ammonia. In a rather long experience in medical practice I have never seen a case of tuberculosis in a butcher's boy.

In a leading article in the Journal of the A. M. A. last year, the writer says: "Bread and meat, the most popular ingredients of the American dietary, are decidedly poor in calcium. Indeed it would be virtually impossible to consume enough of those articles of food to supply the estimated quota of lime without making intolerable demands on the metabolic capacity of the body." I wonder if the writer ever considered where the Esquimaux gets his calcium. Some of them, at least, never see a vegetable; cereals are unknown; they live entirely on meat, which is very poor in calcium. The mature individuals among them may acquire some calcium from the small bones and the fresh blood, but that would scarcely apply to the toddling child, and yet rickets and imperfect teeth are practically unknown. As the Esquimaux apparently acquires all the necessary calcium from a purely meat diet, it is obvious that he must utilize all the calcium available and, having acquired it, he does not develop hyperacidity and lose it again by reabsorption to maintain the alkaline balance in the blood. He eats his food raw, or nearly so; eats everything, acquires considerable calcium from the blood and ammonia from the entrails. He consumes enormous amounts of fats, which have a marked influence on the absorption of calcium, yet the amount he acquires seems so far below what we consider adequate that it is fair to assume that he is not subject to the hyperacidity our diet so often entails or he would show more evidence of it in his bony structures. It may be, on the other hand, that our theories as regards the amount of calcium are all wrong or that, in special circumstances, other salts contribute to its functions.

The teeth of all savages, who, fortunately, are unable to acquire cooking ranges, are usually perfect. With us only the generously meat-fed youth have perfect dentition. A vast amount of ink has been spilled over the causes of tooth decay. Specific bacteria have been identified with the destruction of the enamel as the primary cause. When those pathologists explain to me how it is that the African and Brazilian savage can file or chip his teeth to triangular points, sacrificing all the enamel on the sides and yet retain these teeth to old age (they themselves assert it preserves them), then we may consider the bacterial problem. The condition of the

teeth is wholly dependent on the alkali balance of the blood stream. Among civilized nations the pregnant woman is not always able to supply the necessary calcium for the foetus from the ordinary food supplied, so the saying "every child costs a tooth" has become proverbial. The fault in this instance may be in the endocrine insufficiency. Hyperthyroidism is always associated with increased calcium excretion, and it is possible that in cases of pregnancy, associated as they frequently are, with enlarged thyroid that the function of the parathyroids which conserves the calcium is suppressed.

The increase of respiration in febrile diseases is nature's attempt to diminish the acidity in the cells by increasing the carbonic acid output, encouraging the proteolysis in the cells and setting free ammonia. The capacity of calcium to increase the coagulability of the blood has led to its use in urticaria and other diseases of the skin associated with edema. Bile salts are necessary for the absorption of calcium, and the absence of these is the cause of the tendency to hemorrhage in jaundice. Fats have some special value in the absorption of calcium apart from their relation to the fat soluble vitamins, and I believe our predecessors, in combining the hypophosphates of Cal. and Na. with cod liver oil in the treatment of tuberculosis, were utilizing a remedy that is too much neglected now.

Calcium is usually abundant in our dietary, but in some circumstances the cells are unable to utilize it. It remained for Grove and Vines to find the reason thereof. The calcium of the blood is present in a combined or ionized form, the latter normally 10.5 per cent. They found that in many ulcerative conditions of the limbs the calcium was in excess in the combined form. The administration of calcium by hypo slightly improved conditions, the oral use of it not at all, but by the use of parathyroid the calcium balance was restored to normal, and healing rapidly ensued. Their reasons for this may be thus summarized. The parathyroids have, with their other functions, a specific action on calcium metabolism, and calcium is necessary to sustain the resistance of the cells against bacterial and other toxic agencies. As in all chronic diseases, there are toxic substances being absorbed that ultimately break down the cell resistance, and of the defensive, salts calcium is the most important. In varicose ulcers, in examination of the blood, there was invariably found a deficiency of ionic calcium. In these cases when parathyroid was administered and the normal balance was established, the ulcers rapidly healed. In one leg ulcer under my own care, I had for two years vainly attempted to heal it by the current remedies, but it healed in four weeks under parathyroid, with vaseline alone as a local application. Those authors have extended this method of treatment to all ulcers—stomach, duodenal, etc., to suppurative and non-suppurative, and to all diseases in which a deficiency of ionic calcium was found. Among the cases detailed by them were twelve of stomach and duodenal ulcers in all of which clinical cures resulted. It would seem that they have at least established a method of procedure that promises fruitful results.

I do not wish to imply by these remarks that the salts I have spoken of are all the important ones, nor do we know if they are the most important in the conservation of the vital forces. I have said nothing about acetonuria in diabetes or acute acidosis in children, as that is outside the range of this paper. It must not be assumed from these remarks that all diseases are the result of acidity of the tissues, but that the presence of acidity lowers the defensive qualities of the body and renders it more liable to bacterial and other invasions.

Many of our remedies fail to relieve because the condition of the blood stream is abnormal, and the aim of this paper is to induce you, when your remedies fail, to examine the blood for any deficiency in the salts and restore the chemical balance in the cells on the physico-chemical action of which all health depends.

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Diet in Pellagra — In summarizing this subject, Joseph Goldberger and W. F. Tanner (Public Health Reports) say:

1. Eight well-marked though not very severe (mainly dermal) cases of pellagra were treated with fresh beef, as the only known therapeutic element in the diet.
2. In all eight cases clinical improvement followed the inauguration of the beef treatment.
3. In four of these cases the treatment with beef followed an unsuccessful period of treatment with gelatin, the contrast in results tending to emphasize, on the one hand, the inadequacy of gelatin, and, on the other, the therapeutic potency of fresh beef.
4. The preventive value of milk was tested by daily supplementing the basic diet of a group of twenty-nine inmates of the Georgia State Sanitarium with approximately 40 fluid ounces (1200 grams) of buttermilk.
5. None of these patients developed any evidence of pellagra at any time during the period of observation, which for twenty-five of the group, lasted one year, although it is believed that without the buttermilk or equivalent supplement upward of 40 or 50 per cent of the group would have developed pellagra within a period of three to eight months.
6. Fresh meat and milk contain the essential pellagra-preventive factor or factors.
7. It is estimated that about 4 to 4½ ounces (125 grams) of fresh beef (lean round steak) and not over about 40 fluid ounces (1200 grams) of buttermilk will suffice to prevent pellagra in all but very exceptional instances.
8. Fresh butter (from cows largely pasture-fed) ingested daily in quantities averaging approximately 125 to 135 grams (butter fat 100 to 110 grams) failed to prevent pellagra in several instances in which it was tried.
9. Cod-liver oil ingested daily in quantities averaging upward of 2 grams per kilo of body weight failed to prevent pellagra in several instances in which it was tried.
10. The primary etiological dietary factor in pellagra is a faulty protein (amino acid) mixture, a deficiency in some as yet unrecognized dietary complex (possibly a vitamine), or some combination of these.

Protection of the Public From Incompetent Doctors — One of the most encouraging signs of the present time is that the public conscience is becoming aroused to the fact that, no matter under what label the doctor may be listed, the essential prerequisite is that he is competent and has the proper scientific training in the knowledge of disease and the care of the sick. In fact, that is the only way in which the public is particularly concerned in the matter.—Federation Bulletin.

MENTAL DISORDERS CONSIDERED AS MALADJUSTMENT OR BROKEN ADAPTATION TO THE ENVIRONMENT *

By GLENN E. MYERS, M. D., Los Angeles

In 1913, Hoch and Amsden published a "Guide to the Descriptive Study of the Personality," which has been very useful and instructive but too lengthy and diffuse to employ as a routine procedure. At the Quebec meeting of the American Psychiatric Association, Amsden offered a revision of this first plan of attack, with the idea of focusing the information into more narrow channels. In the paper Amsden defined personality as *the aggregate of those tendencies predisposing to reactions which the individual has come habitually to display in the adjustments his life has required of him.* Amsden has said further: "These preferred reactions, or personal traits, may be those whose nucleus is of an instinctive nature; they may relate to behavior in which complex emotions are especially in the foreground; they may relate to the ease or difficulty of conscious response to new situations. A statement or summary of a personality would, therefore, attempt to indicate the reactional assets and liabilities of the individual in such wise that an insight is gained into the probable general course of action he would, under given circumstances, follow."

I quote Amsden to call attention to his instructive paper, and because my following remarks are allied to the general trend that he has expressed. I shall not try to present anything startlingly new and my remarks are, perhaps, directed more to other medical men than to the psychiatrist. Yet I have the feeling that, although so much has been written about mental mechanisms, there is still a too considerable tendency to be satisfied with the making of a diagnosis, and a still too considerable attempt to force objective symptoms into the form which one usually conceives under the name of one or another diagnosis, oftentimes like putting a square peg into a round hole, without much attempt to really understand the mechanism of the disorder. The fundamental principles of mental mechanisms, as we conceive them with our present knowledge, are simple and readily understood. I believe, then, that a repeated presentation of a review of these mechanisms is indicated.

In order to understand a mental upset, one must understand the patient's previous mental make-up, the difficulties that have confronted him and the manner in which he has failed to adapt himself to them. First, let us consider the development of the mental make-up or personality, taking up in order the influence of heredity and then of environment.

We come into the world as a product of our ancestry. We resemble our parents in physical appearance, show physical characteristics of our stock further back, and show certain unmistakable physical characteristics of our race. That fact is well known and need not be elaborated. It is also fairly conclusively demonstrated that we inherit mental attributes from parents, forebears and race, very much as we inherit physical traits. We tend to show most markedly those mental traits which have been handed down through generations and have been characteristic of our stock. That we actually *inherit* these traits and do not acquire them solely from our environment, is shown in the instances in which a child or adult manifests certain unmistakable mental characteristics of a parent or grandparent, after having been completely dissociated from his family since birth. The persistence of racial traits is well shown in the Jew, who has been relatively uninfluenced by various changing environments through centuries. It is generally granted that we inherit certain instincts, such as those having to do with self-preservation, gregariousness, sex, fear, play, imitation, curiosity, motion, flight, repulsion, pugnacity, acquisition, constructiveness, etc. As primitive peoples are governed more by instinct than are civilized peoples, a notable instance of the exhibition of primitive traits is that of the negro, who was transported to a civilization perhaps a thousand years more advanced than his own, and to which, in a comparatively short time, he has made a superficial adaptation, but who, in his psychoses, shows primitive, animal-like behavior which one never sees in the mental disorders of the white man.

Our stock is, then, of great importance and some of us have cause to regret that we cannot choose our parents. For upon the mental and physical attributes of our parents and forebears depends our coming into the world with healthy or diseased body and mind. I cannot conceive, however, the inheritance of an actual psychosis, although it cannot be gainsaid that inherited organic defects or bad mental traits predispose to the development of insanity. This distinction is not always drawn. Fortunately, just as proper hygiene and medical treatment may do much for the benefit of an inherited physical defect, so an inherited tendency to insanity need not result disastrously, providing it is not too marked and providing the proper environmental influences are brought to bear. The unfortunate exception to this is the fact that the capacity for intelligence with which we come into the world is fixed in its limits and cannot be enlarged upon through environment. The child who is born mentally defective, no matter what his opportunities, can never reach the intellectual expansion of the normal adult. He can acquire only the knowledge possible to a child. The extent of the knowledge that he acquires is influenced by his environment, it is true, but his ability to assimilate that knowledge has definite limitations from birth. The limits of such capacity for intelligence depend directly upon the limits of such capacity in the parents, influenced, of course, by alcohol or syphilis or other disease or trauma of parent or child. The importance of the traits that we inherit as regards our future personality is the fact that they are in large extent primitive and instinctive, and tend to be unorganized and turbulent, and many of them must be repressed for the good of the individual, and after having been repressed they tend to reassert themselves to the disorganization of the personality. If the environment is good, they are moulded to

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subservience of good trends; if bad they are liable to be added to or enlarged upon, interfering with the full development of the personality.

It seems to me that an entirely too pessimistic attitude is entertained by some psychiatrists and rather generally by other medical men, in regard to the influence of heredity upon the production of abnormal mental conditions, and that too little consideration is given the influence of environment upon the individual. Because a patient manifests abnormal mental traits, which were also present in a parent or other relative, it is not conclusively indicated without further study, that they were inherited. The patient may show such traits, not present in a member of his family, but exhibited by someone not a blood relation. They who so conclude fail to realize that certain traits of the personality which they had attributed to heredity were really not acquired before birth, but were assimilated from the environment during infancy and childhood. Certainly, a mental instability may be inherited from mentally unstable parents, and a tendency to insanity from insane parents. Yet such an inherited tendency need not lead to insanity any more than the child of tubercular parents need develop tuberculosis, providing the tendency is not too marked and the child grows up in the proper environment.

As the mental make-up, or personality, is the sum of expression of our mind, let us next consider what the mind is and how it develops. In order to form a memory something must be observed, attention must be given it and it must be associated with other memories. The enormous accumulation of associated memories constitutes the mind. If these memories can be recalled, they are a part of the conscious mind; if they cannot be recalled, they are a part of the unconscious mind. The majority of our experiences are forgotten; in other words, memories of them become unconscious, and so our unconscious mind determines largely our attitude toward our environment. I have already stated that the child inherits certain mental characteristics. He may also have received certain mental impressions of his life within the uterus. Certainly, he begins to get impressions of his environment from the time of birth. While his reactions are at first preponderatingly reflex in character, in other words, they are not consciously directed, the impressions from his environment accumulate fast, and he soon begins to manifest a type of personality that becomes more and more characteristic of him as an individual. The sensations of light, warmth, hunger, the satisfaction of hunger, are experiences, and the child soon learns to react to them with crying, or smiling, or sleeping. Displeasure and anger may be early shown. As impressions and memories of impressions accumulate, the reactions become correspondingly more complex. Indeed the new impressions of a child are many times more numerous during the period when all the world is new than is true in any period of time of corresponding length in the adult, whose new experiences are relatively limited. Consider how observant a child is, how soon after birth it is attracted to objects or occurrences, how impressionable it is. That is the proper time for laying a stable foundation for a good mental make-up. This is especially important if there has been mental instability in the parents. The child of tubercular parents should be removed to an environment where he will not be exposed to infection, but where that disease may be avoided through healthful out-of-doors living. It is equally important that the child of mentally unstable parents shall not be permitted to assimilate the bad mental traits of his parents or of others in his environment through association. He should, on the contrary, be intimately associated with persons whose mental traits are normal and, accordingly, exemplary.

Much has been written about the proper environment for a child. Briefly, in addition to remarks already made, I believe that the child should be let alone for the most part during that period when its activities are mostly reflex in character. It should not be mauled about, and taken up and put down again, but should be permitted to learn the rudiments of regularity and routine through regular feeding, regular hours of sleep, and gradually regular attention to its other habits. Later, care should be taken in its sexual education. It will learn from others, if not instructed about sex by its parents, and it is important that this instruction shall come from the parents, who should take care never to practice deception, but should tell enough to satisfy and to insure a return to the same source for further information. Possibly, next to the inheritance of a normal capacity for intelligence, the development of a normal attitude toward sex is of greatest importance for the mental welfare of the individual. There is especial danger in the development of a too strong attachment to a parent. Through such an attachment many a man does not marry because he cannot find a woman sufficiently like his mother, and many a woman cannot break away from her father to go and live with another man as his wife. Much matrimonial inharmony, overindulgence in alcohol, paranoid trends, etc., may be traced to a poorly balanced attitude toward sex. The child should not associate exclusively with adults or with children who are much younger than he, but should have opportunity to play, especially with children of his own age, but also with older and younger children. In that way he can best learn to give and take, to lead and to follow, to have the proper admixture of success and failure which will render him best fitted to meet the world. Repeated failure engenders a feeling of inferiority to situations, and handicaps the individual for getting on in the world. Unbridled success engenders an hypertrophied ego. The only child or the sickly child is often subject to too much sympathy and attention, with the result that he grows up without initiative and forcefulness and is a failure, even though he recover his physical health. If the parent is too severe, the child is liable to become sullen and resentful and to hate the parent, and later to hate the parent substitute in the person of the school master or employer. The development of the personality should be closely followed in order to learn what trend the child's best abilities take and to educate him along that line. The scope of this paper does not permit further details.

It is thus seen that the first few years of life are of the utmost importance in the development of a type of mental make-up through which the individual will later be able to adapt himself well to the world. Mental disorders may be potentially instituted in childhood through faulty modeling of the mental make-up by bad environment, and the bad environment may consist in the association with someone who is mentally unstable or insane, or through an improper attitude toward the child by quite normal persons. And, vice versa, defects in the mental make-up, originating in childhood, are to be looked for in the investigation of mental disorders rather than to expect to find that they have been transmitted directly from parent to child. The individual grows up with a mental make-up which fits him or unfits him for overcoming difficulties or adjusting himself to difficulties that arise during the course of his life. Few, if any of us, may be said to be perfectly well balanced and perfectly normal mentally. The majority of us have difficulty to adjust ourselves to various situations that arise, and in reaction to such situations we show anger, or irritability, or depression, or worry, or any one of various trends of thought or conduct which may be present in others as important symptoms of psychoneuroses or psychoses. Some of us are able to meet ordinary conditions of life, but, owing to an inherent instability of make-up, break down when confronted with especially trying conditions. Others are so unstable that they break down when they encounter the least difficulty. No one of us knows exactly his limitations. The sufficiently normal person will be able to meet all conditions of life without developing a mental disorder; he will find some adaptation to every situation that arises.

Further, in order to understand mental disorders, one must have a conception of the mechanism of regression. All of us must exert a certain amount of energy in pushing our way in the world; we seldom run long on our own momentum without some propelling force. Otherwise we tend to slide back. If we meet obstacles and our mental make-up is good enough, we make every effort to overcome them and persist to success. If our mental make-up is less good and we slide back, after a time we recover our energy and make another effort and succeed. If our mental make-up is still less good, after sliding back we tend to make less and less effectual efforts, and after a time cease to make efforts at all, and slide to lower and still lower levels from which, notwithstanding help from others, we are unable to progress. That sliding back is regression. Regressive forces are constantly operative within us, tending to draw us back from active combat with the world toward a state similar to that of our infancy, when everything was provided for us without effort on our part. The man who, during an illness, shows a childish dependency upon his wife or mother shows a regression. The mental chronic invalid, who makes such demands upon the patience and attention of her relatives, shows a regression into that state of dependency. The patient who has slumped into the deterioration of dementia praecox, through repeated failure of adaptation to sexuality in its broadest sense, shows a regression. Usually, one finds some attempt at compensation; one sees that the patient seeks a ballast. A sudden, unusual interest in religion is, in most cases, indicative of threatening difficulty of adaptation and the effort to find a ballast. The crippled or sickly child may ballast his feeling of inferiority with fancies and tales of his ability and prowess. A regression is then another manner of adaptation to difficult situations, but it is an adaptation through running away and not through fighting. We all, from time to time, wish that life were easier, but if we spend all our time day-dreaming about happier conditions instead of making the effort to bring them into reality, we slide back into a pathological state. We go to the theater and enjoy the play, identifying ourselves with one of the characters. We identify ourselves with a character in a book that we read. In either case, we lose ourselves in greater or lesser extent in dreams and wish-fulfillment, but, if normal, we come back to reality, refreshed by our recreation in fancy, ready to again assume active adaptation to the world.

From the foregoing remarks, it should be clear that a mental upset depends upon one's ability, through his personality, to adapt himself to difficulties that arise and upon the nature and extent of the difficulties that he encounters. If the primitive instincts that he has inherited have not been well submerged within his personality, if he has grown up with a distorted attitude toward the world, if he has inner conflicts interfering with the main trends of his personality, if, in other words, his unconscious mind is not well ordered but, on the contrary, is seething and turbulent, with difficulty suppressed and constantly tending to express its potentiality in abnormal conduct, then he is prone to develop a mental disorder. The external situation would need be but mild, to break down the low powers of adaptation of such an individual. This is especially true in the case of some external situation which connects directly with a conflict in the unconscious mind, by following associated memories into the unconscious, like an electric current from one station to another through a maze of unconnected wires. In other words, the more directly the external difficulty is associated with unconscious conflicts within the individual's mind, the less marked the difficulty need be to create disorder, overcome an adjustment to the environment and produce a psychoneurosis or psychosis. The better ordered and more stable the individual's unconscious mind is, the greater the external difficulties that are required to break down his powers of adaptation. Thus, it is clear why some people get along so well in the world, why they do not break down under all sorts of marked difficulties, and why others break down markedly when they encounter relatively simple external situations. It is seen that, in some instances, the external situation is merely the relatively unimportant, exciting factor in the production of the psychosis, the flash of the percussion cap that sets off the explosion. In other instances, the external situation is the important factor in the etiology of the psychosis, being sufficient, through its enormity, to break down the relatively good power of adaptation of the individual.

It is true that human beings are much alike, that certain mental trends run through all beings like a red thread, and that, consequently, abnormal mental reactions tend, through their similarity, to fall into certain groups, but it is to be recognized that, within these groups, there are marked variations from uniformity, and these variations are the expression of individual characteristics of the personality. I believe that the chief difficulty in an understanding of mental disorders has been through the tendency to think of them as disease entities, which they are not. We may observe symptoms, all in one patient, which we generally think of as characteristic of various mental disorders as, for example, constitutional psychopathic inferiority, dementia praecox, manic-depressive psychosis, psychoneuroses. It is a common experience to have difficulty in the differential diagnosis of dementia praecox and manic-depressive psychosis, because symptoms which we consider to be characteristic of each disorder may be present in the one patient. We go about it in a sorry way if we merely try to fit the objective symptoms into one or the other diagnosis, and try in that way to tell if the patient will get well or not, see-sawing from one diagnosis to the other. The surer way is to make a study of the personality, of the manner in which the individual has made or has failed to make his adaptations to the world, and draw our conclusion about the prognosis from our knowledge of his reactions throughout his life, as well as from our observations of his psychosis. In the case of a profound stupor, in which there is no known symptom which aids us in differential diagnosis, our sizing up of the outlook must depend entirely upon our information about the patient's previous personality.

While an understanding of the mental make-up is of most importance in the functional mental disorders, it is also of importance in the organic conditions. Through that means, one can understand the various mental trends and different types of reaction in, for example, general paralysis. In that condition, mental trends, which had previously been held more or less well in restraint in the individual's adaptation to his environment, are liberated through the disorganization of his personality, and the consequent abandonment of efforts at adaptation, brought about by the invasion of his brain by the organic disease. From the standpoint of treatment, an understanding of the previous mental make-up is also of most importance in functional disorders; yet, in organic disease, it is frequently of advantage for the patient's comfort and his care, even if his actual organic condition cannot be relieved, to do what one can for the symptoms that are brought out of his personality by the organic condition.

In conclusion, it is well to remember that the time to treat mental disorders is before they develop as such, when they exist as relatively minor deviations from the normal personality, and when they express themselves through relatively minor defects in adaptation to the environment. Thus the shut-in type of mental make-up should be treated as incipient dementia praecox. With our limited experience, it would appear that, as should be expected, efforts at correction of bad types of mental make-up are singularly successful in warding off a psychosis, even one as severe as dementia praecox.

Marsh-Strong Building.

DISCUSSION

Edward W. Twitchell, M. D. (909 Hyde Street, San Francisco)—While the influence of environment in mental disease must be admitted to be profound, there is great danger of attributing too much to it and undervaluing heredity. If a psychosis is not actually inherited, the "makings" are, and then much depends on the type of disease as to the part environment must play.

Broadly speaking, of course a mental disease is the result of failure of adjustment to environment, particularly when one goes beyond the more obvious reactions between the individual and his physical surroundings, but the actual inability to adjust is usually bound up with heredity.

The schizophrenic has always seemed to me to be relatively independent of environment to this extent, that he develops in a vast number of cases in spite of being surrounded by the best of conditions. In fact it is every-day experience to see these schizophrenics coming out of the least expected places, regarded even from a Freudian standpoint. The manic-depressive, on the other hand, whose psychopathic heredity is so generally demonstrable, in contradistinction to the apparently untainted heredity in so many schizophrenics, can be surrounded with safeguards that will protect him from outbreaks, or not subject him to strains which will precipitate them.

The revolutionary changes in living in the past three generations have made themselves felt in a variety of ways. We are suffering particularly now because the speed of adjustment of the mind to the change has not kept pace with that of the change. Many of the recent changes have not yet shown what their effects are to be. The future psychiatrists will tell us what are the effects of radio on the mind, which may be as definite as those of the X-ray and radium on the body and a new category of diseases may result from the loosening of hitherto imprisoned powers. It is fascinating to speculate on what new ailments will follow the eventual releasing of atomic energy.

H. Douglas Eaton, M. D., (1136 West Sixth Street, Los Angeles)—Careful evaluation of hereditary and environmental factors in any case of nervous or mental disease is essential to a proper diagnosis and to competent therapy of such a case. Some cases of nervous or mental disease are due to poor inheritance alone—others in the writer's experience, a much smaller number, are due to environmental conditions alone, but by far the largest number result from the interaction of both factors. As a rule, the individual who develops a psychoneurosis or psychosis starts with a diminished resistance which is still further lowered by adverse environmental conditions.

The relative value of each factor in the genesis of the final disorder is still a matter of theory rather than fact. The birthright of lowered resistance to mental or nervous trauma is not necessarily an unchangeable condition any more than is a similar lowered resistance to tuberculosis. Proper individual care of a large series of cases of good and bad inheritance starting at birth and continuing during the formative period would be the only adequate way to determine the relative value of poor inheritance and environmental trauma. This has never been done to the writer's knowledge. It is his belief that such early and long continued skilled individual care would cure many cases now classed as defective from birth. On the other hand, it would leave many cases of true organic weakness or instability.

Too much emphasis cannot be laid upon a comprehensive study of the individual case of nervous and mental disease. Therapy founded upon such

work will be valuable always and successful in an astonishing number of cases.

Dr. Myers (closing)—In closing, I should like to say that I have not desired to belittle the importance of heredity, but to combat the rather general tendency to believe that bad mental traits, psychoneuroses and psychoses are solely hereditary in origin. I believe that both heredity and environment play their part in the formation of personality or mental make-up, good or bad, and consequently that both have to do with the development of mental disorders. It seems to me that our knowledge of mental mechanisms must be markedly retarded, if we do not make an exhaustive study of the environment of our patients and, by environment, I refer not only to physical surroundings, but more particularly to the mental influence upon the individual of those persons with whom he has been brought intimately in contact. With the exception of intelligence defect with psychosis, I believe that environmental etiological factors in the development of an abnormal mental state can always be found, no matter how harmless the environment may superficially appear to have been. Furthermore, is it not true that the mental traits that we inherit were formed through the influence of environment upon our ancestors? It is well known that we acquire new physical characteristics through change of environment and that we transmit these charcteristics to our progeny; further, that these new physical characteristics are strengthened as long as our descendants continue to remain in the new environment. Does not this truth hold in the same way in the development of the mind?

It is through our mental make-up that we adapt ourselves to the world and mental disorders, therefore, may be looked upon as maladjustment or broken adaptation to the environment. Inversely, in the study of mental disorders, we should investigate the influence of both heredity and environment upon each individual patient, with the expectation that, through such study, our knowledge of etiological factors, of mental mechanisms both normal and abnormal, and our efficiency in treatment will all be increased. The study is fascinating.

The Workings of the Sheppard-Towner Law—Release publicity from the United States Civil Service Commission reads: "Specialist in maternal and infant hygiene, $3500 a year; assistant in maternal and infant hygiene, $2000 to $3000 a year; expert in maternal and infant care, $3000 a year. Receipt of applications will close February 26. The examinations are to fill vacancies in the Children's Bureau, Department of Labor, at the entrance salaries named above, and vacancies in positions requiring similar qualifications. Appointees at an annual salary of $2500 a year or less, may be allowed the increase of $20 a month granted by Congress. Appointees will also be allowed actual traveling expenses and $4 a day for subsistence when away from headquarters on official business. The duties of specialist in maternal and infant hygiene are to plan, conduct, or assist in investigations into the causes of infant and maternal mortality and morbidity in selected communities, rural and urban, with special reference to maternal and infant care at the time of confinement, and to make reports of such investigations; to inquire into the methods of prevention of infant and maternal mortality, and to conduct conferences with directors of bureaus of child hygiene, supervisors, and teachers of midwives. The duties of the assistant in maternal and infant hygiene are similar to those of the specialist, but in a subordinate capacity. The duties of the expert in maternal and infant care are to teach public health nurses the newer methods of maternal and infant care and related duties." Surely, comment upon this would be superfluous. President Coolidge has assured us that activities of the Federal Government will not expand this line of development while he is President.

RATES FOR STATE MEETING

SOUTHERN PACIFIC

Leaving Friday, Saturday, Sunday — Sixteen-day ticket (round trip), $19.

Leaving Monday—Thirty-day ticket (round trip), $22.50.

Lower berth, $4.50; upper berth, $3.60; drawing-room, $16.50—two tickets; compartment, $12.75—two tickets.

THIRD AND TOWNSEND STREETS

Lark

Leaves S. F.—8:00 p. m. Arrives L. A.— 9:35 a. m.
" L. A.—8:00 p. m. " S. F.— 9:35 a. m.

Sunset Limited

Leaves S. F.—5:00 p. m. Arrives L. A.— 7:45 a. m.
" L. A.—8:00 p. m. " S. F.—10:30 a. m.

Daylight Limited

Leaves S. F.—7:45 a. m. Arrives L. A.— 8:30 p. m.
" L. A.—7:45 a. m. " S. F.— 8:30 p. m.

FERRY BUILDING

Owl

Leaves S. F.—6:00 p. m. Arrives L. A.— 8:50 a. m.
" L. A.—6:00 p. m. " S. F.— 8:50 a. m.

Padre (via Coast)

Leaves S. F.—7:40 p. m. Arrives L. A.— 9:35 a. m.
" L. A.—7:45 p. m. " S. F.— 9:35 a. m.

SACRAMENTO

Sacramentoan

Leaves Sac.—4:10 p. m. Arrives L. A.— 7:55 a. m.
" L. A.—6:15 p. m. " Sac.— 9:55 a. m.

LOS ANGELES STEAMSHIP RATES

Sailing from San Francisco—Tuesday, Wednesday, Friday, and Saturday.

Sailing from Los Angeles—Tuesday, Wednesday, Friday, and Sunday.

Standard accommodations (round trip), $22.50.
De luxe accommodations (round trip), $32.50.
Leaves S. F. Pier 7—4. p. m.
Leaves L. A. via P. E. Ry.—3 p. m.
Arrives L. A. via P. E. Ry.—11 a. m.
Arrives S. F Pier 7—10 a. m.

HOTEL RATES

Los Angeles Biltmore
Fifth and Olive Streets, Los Angeles

Single Rooms
$5 to $10 per day.

Double Room With Double Bed
$7, $8, $9, and $10 per day.

Double Room With Twin Beds
$10 and $12 per day.

Two Connecting Rooms
Three persons—one equipped with twin beds and one single, $14 to $22 per day.
Four persons—two double connecting rooms, $18 to $24 per day.
Each and every room has its own bath.

The Economic and Military Importance of Health—Public health activities show a strange line of demarkation in their relative solicitude for the sick and for the well. Unless a patient's malady endangers the health of others, his relief is viewed solely as a matter of charity, and the fact that his health, quite as much as the health of anyone else, is of economic and military importance is ignored. The distinction has, however, no sound basis in theory or practice. The health of the sick is possibly of even the greater importance; for one who is no longer an effective member of the community is a liability; he does not produce even the cost of his maintenance, is unable to defend himself, and requires the support and protection of others, who are thus kept from the fields of productive activity. It cannot be too strongly insisted that the more promptly and effectively the sick and injured are made well, the richer, the more powerful and the more contented and happy is the community.—Regulation of the Healing Arts, in Principle and Practice, by William C. Woodward.

EDITORIALS

FIFTY-THIRD SESSION OF THE CALIFORNIA MEDICAL ASSOCIATION

Don't forget to make plans to attend the Fifty-third Session of the California Medical Association, to be held at the Biltmore Hotel, Los Angeles, Monday, May 12, to Thursday, May 15.

The Los Angeles committee of arrangements consists of William H. Kiger as chairman, and the following colleagues, each of whom is chairman of the sub-committee indicated after the name:

George H. Kress (entertainment); Donald J. Frick (golf); W. T. McArthur, Harlan Shoemaker.

It is planned to have a dinner-dance and grand ball and president's reception on the evening of Tuesday, May 13. This will be in the large and beautiful ballroom of the Hotel Biltmore. Members of the Association will be able in this manner to have their own table and dancing groups, and at the proper time the Grand March will be formed and the reception to the president of the C. M. A. will take place.

On Wednesday afternoon it is proposed to have an auto trip to the beaches, with a stopover at one of the beach country clubs. The program for this will be in charge of Kress.

A golf tournament will be staged for each morning of the session, and this will be under the supervision of Donald Frick. There are thirty-two golf courses within a short distance of Los Angeles, so there will be plenty of room for everybody. It is planned to have a cup for the winner of each day's tournament, which the winner will be able to keep as a souvenir; and in addition there will be a large and handsome president's cup, which will only go to that member of the Society who will be able to hold the same as winner of the golf tournaments for three different years.

Other plans in the matter of informal smokers, medical fraternity meetings, and so on, are also under way. The meeting gives every promise of being replete not only with a most satisfactory scientific program, which is now complete and published on pages 168-180 of this issue of CALIFORNIA AND WESTERN MEDICINE, but with a large number of entertainment features that should appeal to out-of-town as well as to local members of the Association.

Remember what Roosevelt said about what a man owes to his craft, and attend this annual session. You will receive much of interest and importance. What is much more worthwhile, you will have opportunities to give of your own ideas, experiences, and knowledge.

Information regarding hotel rates, transportation rates, and time-tables is published on page 157 of this issue.

THE PROBLEM OF GIVING

Andrew Carnegie is credited with once having made the statement that intelligent giving was a far greater problem than the accumulation of wealth. Experiences both before and since Carnegie's time have demonstrated the wisdom of his remark. The subject has its greatest importance in the health field, because of the human appeal in promoting better health service.

It is our present purpose to call attention to a phase of the giving problem now acute in a California community, which apparently has no parallel in the history of private munificence. Essentially, the situation is this:

Colonel Simeon J. Murphy, a prominent and wealthy California citizen desired to present a memorial to his father's memory to the citizens of Whittier, a small city in Southern California. After consulting his physician and other advisors, he decided to build and equip a fine hospital, costing about $325,000. A splendid idea which one would think would have the endorsement, support, and cooperation of all citizens in its execution. Not so, however; difficulty after difficulty has been thrown in the way of the execution of the plan, until it is reported that the benefactor is quite disgusted and is awaiting an opportunity to revert to his estate the several hundred thousand dollars already spent.

In the first place, California not only is without laws that lend themselves to encouraging private philanthropy, but the laws are in some instances inimical to the development of the practice of private giving. Finally, after prolonged discussion, the legal technicalities were made as harmless as possible, and the project was undertaken. The deed of gift was made to the citizens of the city through the city council as their representative contingent upon certain conditions being continued in perpetuity. The most important of these conditions was that the city council should appoint a board of trustees who were to have the usual complete control of the trust. One condition required that the hospital site, located in the city park, should be furnished by the city. Another condition was *"that said hospital should be so conducted and managed that it will at all times rank as a Class A institution."* There were several other conditions in the trust which need not be discussed here, except the very important one, that, in case the conditions of the trust were violated, the property and other assets were to revert to the private estate of the donor.

The city councilors appointed the board of trustees, and a number of conferences between the donor, the trustees, and the city councilors were held. It is to the credit of all these interested persons that they settled the numerous questions and problems with the right spirit, and at no time has there been any serious trouble among those charged with the execution of the provisions of the trust. A splendid fifty-bed hospital was built, equipped and personneled, and was so successful that it soon be-

came too small and a new forty-bed annex has just been added by the munificence of the original benefactor.

After the hospital was in successful operation, the osteopaths and chiropractors claimed the unwarranted privilege of treating their patients in the hospital. Their request was refused by the trustees, and the refusal was sustained by the city councilors and by the donor himself in writing. This experience suggested the advisability of accurately defining the phrase "Class A hospital." This was done in a hospital by-law, which, with all other by-laws, had the endorsement of the staff, consisting of the educated doctors of medicine of the community; approved by the trustees, the city council, and by the benefactor himself. When the new annex was built, the whole question of the purposes of the giver and the conditions necessary to maintain the complete hospital as a worthy agency of scientific medicine with its staff and medical privileges limited to educated physicians was restated and re-endorsed by the philanthropist, the officials of the municipality, and the trustees.

ENTER POLITICS

While this philanthropic citizen is still living, and in spite of his own signed wishes on the point which have been agreed to by the city officials and the trustees, and in defiance of his public protests, certain groups of people, whose motives surely need no comment, have secured the necessary signatures and have placed on the ballot, to be voted upon April the 12th, a local initiative directing that the hospital be opened to all "doctors," regardless of educational qualifications, who hold any sort of a license from any of the several so-called boards who license persons to treat the sick in California. This local initiative also carries a severe penalty clause.

If the hospital is to live up to the meaning of "Class A," as used in the trust and as defined in a by-law having the endorsement of the trustees and Colonel Murphy, it should be on the list of hospitals "accredited" by the American Medical Association. This official accrediting agency has several important rules of good hospital conduct. The most important one, so far as The Murphy Memorial Hospital is concerned, is that only those holding the degree of doctor of medicine from acceptable bona fide institutions of learning may practice in the hospital. This educational requirement is above the fluctuation of political standards, and it is quite broad enough to include all those really adequately educated to treat the sick. The methods they apply may be any that have reasonable basis in scientific fact and experience. The term "legally licensed" to treat the sick in a state with adequate laws effectively enforced ought to be sufficient; but the laws of California and several other states are so inadequate and so poorly enforced that the legal standing of a "doctor" is not and cannot be used as a basis of rating his educational qualification and, therefore, of his privilege of practicing in a hospital "accredited" as a legitimate agency of scientific medicine. The people of Whittier should be assured that, if they were to succeed in passing their local initiative and it should be sustained in law, the hospital will thereby forfeit its present opportunity to be officially "accredited," and thus would pass below a "Class A" institution as defined in its approved by-laws. How much this will mean to the community, we will discuss at another time. It may be said in passing that no community is sufficient unto itself.

A SAD SITUATION

The proceedings in this situation no doubt will have far-reaching consequences upon private philanthropy in health fields. If this, or some other similar initiative should pass, an amazing amount of bitter controversy and litigation immediately becomes possible, by which the community will be divided and the sick will suffer.

That the initiative violates the conditions of the trust there can, of course, be no question. If so, the property reverts to the estate by a definite provision of the same trust.

If the city councilors who acted in good faith had the power to accept this splendid trust, can this initiative make null and void or modify the terms and conditions of a large financial transaction already long since closed? It appears that the action of the city council was either valid or invalid. If valid, no arbitrary political upheaval can abrogate the action; if invalid, then the trust has no legal existence, and if repudiated, as now proposed, the trust reverts to the original donor. The election will, therefore, merely determine how many people there are in this particular community who believe in regarding a trust as a "scrap of paper."

Is this initiative itself legal? Will it be sustained by the courts? It is so loosely drawn that it is susceptible of many interpretations.

There is no objection to any group of so-called "doctors" building hospitals or inducing philanthropists to build for them. They may follow out their peculiar theories in their own hospitals, so long as they comply with the law. That is precisely the demands of educated doctors of medicine for themselves, and the hospitals and other agencies of medicine they utilize. It is the stand of the official accrediting body of their own national organization and, in the case in point, is the wish of the benefactor. The two groups, the educated physicians on the one hand, and the inadequately educated group on the other, cannot be scrambled. Neither can the agencies through which they operate be mixed any more than can oil and water. The greatest weakness of all the non-medical groups is that they are constantly fighting to be attached to and become part of the work of educated physicians. One would think that if they really believe in their methods they would want to stand out for themselves and not be "barnacles on medicine," as they have been termed.

There are less than 100 beds in less than five hospitals in the state operated by or for the inadequately educated medical cultist groups, while there are over 40,000 beds in over 500 hospitals in the state operating as agencies of scientific medicine. This shows conclusively that the patients of cultists do not need hospital accommodations, or that they have been derelict in meeting the hospital need for the care of the sick.

DUTIES OF COUNCILORS OF THE C. M. A.

In publishing the proceedings of the last meeting of the Council of the California Medical Association in Los Angeles, one resolution was deliberately held out for editorial mention. That resolution reads as follows:

> "Resolved, That it be understood to be a duty of the Councilor for each councilor district to visit at least one meeting a year of each constituent society within his district; and that he, in the discharge of this duty, should arrange with the secretary of the society to be visited for the program for that particular meeting; and that each councilor report on the execution of this part of the program at the State meeting."

If we are to progress in medical organization work, the letter and the spirit of this resolution must be faithfully carried out. It is difficult to do: The councilors of our association are, like the other members, very busy practicing physicians; they already give much of their time to the serious consideration of the complicated and difficult problems of medicine that come before them in ever-increasing numbers at each meeting. These meetings are held in different parts of the state and involve not only loss of time to these executive officers, but a not inconsiderable outlay of their own funds. To ask them to comply with the resolution is to add to the responsibilities, duties and expenses of their office. Yet this work must be done, if we are to go ahead, and only men like councilors, who are familiar with the problems of the organization, are really prepared to meet the local situations in their various communities.

It is to the credit of our councilors that they, almost without exception, attend their meetings with regularity, and devote whole days and oftentimes a good portion of the nights to consideration of problems in which we all should be interested.

TAKING THE "CLINIC" TO THE PATIENT

An interesting movement in providing skilled care for patients is gaining headway in sporadic centers in California. Essentially, it consists in taking the specialist to the patient rather than the other way round, which is the customary procedure.

By way of illustration, which we could repeat many times, a small community has, let us, say, several crippled children, some of them poor and others of well-to-do families. The nearest specialist in orthopedic surgery may be twenty-five or three hundred miles away. Instead of going to the tremendous expense of transportation for patients and attendants, hotel expenses for attendants, and hospital expenses for the patients, with all sorts of additional expenses of transients in the city, the local physicians and authorities get their patients together in their home town and arrange for the specialist to come to them. With the preliminaries cared for by local initiative, the specialist may readily render a phenomenal amount of service in a very limited time. The after care of the patients is carried on by the family physician, either in the local hospital, or in the home. If wisely developed, this movement gives promise of going far in rendering better service at less cost to many people.

Members of the Hospital Betterment Service have watched the growth of this movement, particularly in Southern California, with growing interest and appreciation of its possibilities in many ways. There are also dangers that threaten. So far, it is not a concerted movement promoted by anyone. It should be taken hold of by physicians' organizations, guided and developed along constructive lines. It offers possibilities in every medical specialty. Possibilities of better medicine for everyone at greatly diminished costs to the public, with adequate compensation for the specialist and the family physician.

THE COOLING EFFECT OF MENTHOL

The cause of the local cooling effect on mucosae exerted by menthol appears to be more than a case of volatilization produced by any volatile agent whatsoever. That is, there appears to be a direct stimulation of cold nerves, indicating a peculiar specificity or predilection of this agent for these structures. This is indicated by the recent work of Heubner of the Pharmacological Institute at Göttingen, who studied the question in human subjects.

By passing air at different temperatures through a tube containing menthol, Heubner found that there was produced invariably a cooling sensation in the mouth and nose and on the tongue, gums, lips, and conjunctiva. The skin gave variable responses. This was due to stimulation of the cold sensory endings by, and not to physical volatilization of, the drug, because when air at a temperature of 37.5 degrees C. was passed on mucosae the sensation was indifferent, but the moment that mentholized air at the same temperature was admitted a cooling sensation occurred. Hence, it followed from this that the nerve endings, which appreciate cold, were irritated or stimulated directly. These nerve endings not only were stimulated at the time of the application of the vapor containing menthol, but also remained irritable after the menthol was removed because now a cooling from any source could be more readily appreciated.

Presumably, other effects as a result of stimulation of sensory cold endings were reflex stimulation of the higher centers, including the vasomotor center. Stimulation of the vasomotor center would result in peripheral vasoconstriction, and this, in part, might explain the subjective sensation of relief in, or clearing of, the respiratory passages experienced by patients treated with various mentholized applications. This effect would tend to lessen hyperemia. In this connection, it will be recalled that McGuigan of the Pharmacological Laboratory at the University of Illinois pointed out that the menthol or volatile oil (peppermint oil) type of medicament lowers the surface viscosity and tension of edematous and mucous fluids through a strictly physical effect on these secretions. The result of this is lessened tenacity and increased fluidity of such secretions facilitating their removal by expectoration.

It appears from all this that menthol acts as more or less of a specific stimulant to cold nerve

endings, reduces local hyperemia reflexly, and facilitates the removal of secretions by direct physical action, and, therefore, is not merely an inert deodorant and placebo.

Heubner, W.: Arch. exp. Path. Pharm., 1923, 96:330, "Menthol als Beispiel eines erregenden Giftes."

McGuigan, H: J. Am. Med. Assoc., 1921, 76:303, "Menthol and Peppermint in Acute Catarrhal Conditions of the Respiratory Tract."

MEDICAL FICTION

The cause of scientific medicine is being injured by what may be appropriately termed medical fiction. It is not called that to be sure, but it finds its origin in the same sort of fanciful dreams. It is promulgated in the same breezy style, and it is motivated by the same underlying principles. Like some other fiction, it plays with perverted truths, twisted half-truths, or more often, it is the creature of the imagination. Like some other fiction, too, it utilizes old and substantiated scientific knowledge; old and obsolete and long since disproved theories, or even the meanderings of the medical theorists of other days, and by dressing them with new verbiage, promulgates them as new contributions to science.

If most of these modern medical—including public health—fiction writers had the true novelist's instincts and the facility to write well, they would do incalculable harm. Even their choices of subjects is held in fairly narrow fields. One of their favorite sports is to launch an attack upon the family physician. They attack his inadequate education, his craftsmanship, and even his integrity. They seem to think that he is only fit to sign the death certificates of patients of these reformers, and "near doctors" and alleged public health experts of one kind or another. Two of their other luscious subjects are "child health" and "psychology." Here, again, they can rarely complete a paragraph without sticking a barb in the "family doctor."

Most of them in these and other fields of medical fiction rehash things more centuries old than they themselves are years old, and promulgate them as "new." They love to revel in the idea that prevention of disease is a new subject; that nothing was known about nutrition and other branches of physiology or psychology longer than a few days or weeks ago. They appear to be totally ignorant of real medical history, or if they are not, they are as unspeakably vicious as their writings indicate. These man-handlers of medical truths are finding hard sledding to get their "stuff" over with medical editors, but they are still in clover with book publishers and "news" distributing agencies. Their strong and enlarging forte is in the "free" bulletins given out from clinics, health centers, and various political agencies of government.

There is plenty that *is* "new" about medicine that ought to be promulgated. Judged from their writings, it is also new to these expert promulgators. There are old truths that ought to be restated, and restated where possible in language understandable by everyone. But why is it necessary to attack the great mass of educated physicians and insult the intelligence of even other intelligent readers of history, in efforts to advance themselves and the more general understandings of the simple truths of health?

Above all, what sorts of souls, visions or hearts have the few of these medical fiction writers who are doctors of medicine and who ally themselves with and support emotional uplifters and go them one better by attacking their fellows who graduated from the same schools, often in the same classes as themselves, and who are carrying our real health burdens now as they always have carried them?

SHALL WE PROTECT OR DISCARD "DOCTOR"?

What a confession for a Government to admit its inability to protect against impositions and fraud a title as important to progress as that of "doctor"!

What a miserable compromise with knavishness to attempt to abolish the word "doctor" that is woven by college looms so deeply into the fabric of civilization!

Why in the first place pick upon our college degree of "doctor"? Some people forget that doctor is not a political or other title conferred by the State, but that it is wholly an expression of educational attainment made by universities and colleges, and constitutes the highest degree they award. In this respect, as well as that of usage and understanding, it is only one of several other terms, like "professor," that have been prostituted to a nauseating and disgusting extent.

If our State Government will not protect the use of these terms and not only admit their inability to do so, but frankly attempt by law their destruction, will they be able to succeed? When weeds grow up in the farmer's corn-field, he does not dig up his corn or move to a new field, but destroys the weeds and protects his corn.

We believe that the vast majority of our people, whether themselves physicians, professors, or not, will disapprove any attempt to destroy these appropriate terms which have come to mean so much to so many people. We believe, furthermore, that the majority of our people will support legislation and the enforcement of laws to protect hard-earned titles. At least they will be given the opportunity to do so when the next legislature meets.

Two years ago, after an exhaustive study of the needs of the situation, what was known as the "Medical College Bill" was prepared by physicians and introduced into the legislature by the League for the Conservation of Public Health. It passed the senate and died in a committee of the assembly. That bill will be before the legislature again. It provides that any school or college purporting to teach the healing art and confer any sort of "doctor" degree must comply with certain reasonable requirements. This would stop the output of diploma-mills, whose principal occupation is to issue a diploma with doctor on it, and it would thus correct a situation at its source.

The last legislature passed a law all but unanimously that placed adequate safeguards about "doctor." At least it required each "doctor" to make public his authority for use of the title. This bill

was vetoed by the Governor of the state. His reasons for so doing were not popular at the time, and they are growing more unpopular as times goes by.

For the Governor's administration to now make an attempt to destroy by law what they refused to protect, because the situation is so hopelessly bad, will be another blunder, and place the Governor's administration in a more damaging light than it now is.

The "Doctor bill," as it was called, for the protection of those who are entitled to its use, as well as the protection of the public, will be again before the legislature. When this measure and a destructive one introduced by the administration on the same subject meet in the legislature, there ought to be further opportunity for assaying values.

We are convinced that such destructive legislation will never secure the endorsement of the majority of doctors who hold this enviable degree from good schools, and which they spent so many hard years of study and sacrifice to secure.

COUNTY HOSPITAL FEES

There is a gradual spread of the practice of county hospitals in California not only to charge patients fees, but to develop an ascending scale of fees. Leading the promotion and development of the idea are some of the largest and most prominent of the county hospitals, located in centers where there is not the excuse of insufficient number of beds in other hospitals.

Some of the plans and schemes that are employed in deciding how much these various grades of citizens shall pay would make a Russian Communist dizzy. They grade people like pigs, as a, b, c, d, etc.—classes with a lot of algebraic formulas with these letters to make them fit any pocketbook. In fact, some of these hospitals have already reached a plane whereby almost the only "free" service about them is the doctors' services. Some of them are reporting, apparently as something to be proud of, that they have only small percentages of patients who do not pay, and that this percentage is decreasing year by year.

Recent reports from several Eastern centers show that these "free" hospitals and other "charities" are collecting from 40 to 75 per cent of the costs of all their services from the people they are serving. They are beginning to point with pride to the millions they are collecting from those who the general public believe are getting free treatment.

What is called "business methods in charity" is swinging rapidly into a dangerous situation which, unless corrected, will produce unlooked for reactions. Some such reactions are already making themselves quite apparent in some centers where the operation of charity as a business is oldest.

Whatever one's opinion may be about religion, the first instance of permanent progress along lines contrary to the teachings of the Master has yet to be noted by historians. He spoke unmistakably and emphatically about "charity" and "the poor."

A SIGN OF THE TIMES

New Jersey doctors are much excited, and with good reason, over a bill pending in the Legislature to create a special health board called the Bureau of School Health, under the control of the Board of Education. As a sop to the medical profession, a "regular licensed practitioner of medicine" is to head this new bureau.

In discussing the proposal editorially, the Journal of the New Jersey Medical Society says:

"It is expected that the measure will have the backing of insurance, manufacturing, and lay health organizations. It will probably be opposed by the associations of physical education, teachers, who, in 1917, while the profession was unaware, had a program of physical education set up instead of a program of health, one of their number now being a pseudo-director.

"*Every doctor* should join the battle. Do we wish to be beaten by a crowd of 'gym' people? Shall the people be allowed to suffer to enable one 'gym' man to thwart public welfare? *Every doctor* should call upon or call up his legislators and urge the passage of the School Health Program bill."

Of course, to retain a health program of education and practice in the hands of a physician is important. But why have two boards?—one for school children from ? age to ? age, this board responsible to the educational authorities; the other the regular health board for the rest of our citizens, this board responsible to the usual Government authorities and to the public for the carrying forward of all phases of a better health program.

The real reasons why the New Jersey school authorities, and those of many other states moving in the same direction, want their own health board under their own orders are perfectly clear to any thinking person.

THE TWELVE-HOUR DAY FOR NURSES

To Californians it is almost like reading history to watch the controversy between doctors, nurses and hospitals and the public over the nurses, demands for a twelve-hour day. In Buffalo, New York, for example, the fight is bitter and aggressive.

The twelve-hour day, as it is called, is in quite general use in California and has been for some years. The exceptions are, that nurses will look after chronics and convalescents on a twenty-four-hour day basis, provided reasonable hours for recreation and sleep are provided. This, in our opinion, is as it should be. If nurses are really needed, and if they really work while on duty, twelve hours is rather more than less to ask of them. When there are only a few things to do for the patient at a certain few times during the twenty-four hours, one nurse can easily handle the task and, with a little reasonable understanding with the doctor, have plenty of time to sleep and look after her own health.

Most worthwhile nurses like to be kept "busy" while they are on duty, and to be free when not serving the sick.

The argument that, reducing a nurse's day to twelve hours will increase the cost of sickness, while probably a fact, is nevertheless no argument. Sick-

ness costs less also in a "firetrap" hospital, but no one would condemn fireproof buildings for hospitals on that basis.

No, nurses are not unreasonable in asking for a twelve-hour day. They were, and are, foolishly advised in using the methods they sometimes employ in bringing the shorter day about.

The costs of sickness ought to be, can be, and will be decreased somewhat by better organization, elimination of waste, substitution of necessities for luxuries in buildings, equipment and otherwise, but we should not try to fasten "sweatshop" methods upon any group of employes in order to make a showing.

It is not the twelve-hour day but other dangers, and some of them serious, that threaten the standing of this splendid and important technical group of the medical and health agencies. Of the many dangers that threaten, the most important and far-reaching is the overspecialization in nursing organizations and among individual nurses. The second greatest danger is, that too many nurses are so conducting themselves as to merit the designation of super-nurse, etc., that is being bestowed upon them in ever-widening circles.

With wise leadership among themselves, these and other pitfalls may be avoided. We hope they may and that the world may continue to hold nursing as the sacred service-loving calling that Florence Nightingale made it.

WHO IS RESPONSIBLE FOR THE CHILD?

Numerous educational and political documents now being issued from time to time make it perfectly apparent that many of our organizations consider control of the child a public duty rather than the responsibility of parents, which was the vogue when we were all youngsters. These organizations are making headway and it looks very much as if in the course of time they might win the point they are striving for.

We wonder how many people think what will happen after this point is gained.

One thing that already is happening is indicated by Mr. J. C. Astredo, probation officer of San Francisco, when he says, "THERE SEEMS TO BE A WILLINGNESS UPON THE PART OF PARENTS TO LET THE COMMONWEALTH ASSUME EVER-INCREASING RESPONSIBILITIES FOR THE CARE AND DIRECTION OF CHILDREN." Mr. Astredo is in a position to secure accurate data upon subjects of this character, and his fair-mindedness in presenting this data cannot be questioned. Statements of this kind cause those who are trying to push the nation headlong into a difficult situation to pause and consider what they are doing.

Many mothers need help and many children need help, but could we not plan so as to render assistance of whatever character to or through the mother and thus prop up and support the independence and integrity of the home? Surely our people, when they know the facts, are not ready to make of motherhood a "brooding plant" and the weaned child an exclusive responsibility of the commonwealth.

THE FORDS OF MEDICINE

Every so often some new genius discovers again the old, old formula that everybody can have expensive hospital and medical care except the "poor middle class." They say the rich can buy it and the poor can have it for nothing, but those "middle class" people can't pay present costs of doctors' service or hospitals.

Nearly every one of these financiers expects either that wealthy people will provide subsidies, that the costs of hospitals and doctors' fees be reduced, or that the state take over all hospital, and, consequently of course, all medical work. The answer, of course, is to first catch your bird.

Henry Ford decided that there were millions of poor "middle class" people—God bless them—who wanted, and therefore should be allowed, to ride in automobiles. By a combination of business genius, energy, and common sense he has been able to provide them a car. It travels and delivers its passengers at their destination, but it does not satisfy, and every owner wishes for a *better* car more intensely than he originally wished for *any* car.

The only possible way, except by gifts from persons or the state, by which hospital service and medical fees can be brought much below their present scale is, by doing what Ford did to automobiles—put cheap material together in a "standardized" plant and use unskilled drivers. Such tactics will neither satisfy the demands of the sick nor give the service they should have.

Handing the problem to the state does not decrease the cost. Good government hospitals cost every bit as much, and even more than others, to operate. There is plenty of voluntary sickness and health insurance offered by many reliable companies at premium rates that even the "poor middle class," which, by the way, include most physicians, can pay. Instead of wasting our time on economic absurdities, why not spend more effort in pointing out to people the available practical remedies that exist?

Henry Ford, be it remembered, tried the hospital game. He has a fine plant, which charges only quite moderate rates for service, *but* it takes a Ford to absorb the deficit.

A very large percentage of the people who can well afford to pay costs of sickness, and for luxuries if they want them, carry every form of sickness, accident, and health insurance. They do it as a good business policy. Why in the name of justice should not others who need such protection pay the small premiums it takes to carry it?

NEVADA MEDICAL ASSOCIATION

The annual meeting of the Nevada Medical Association will be held this year September 12 and 13, at Bowers Mansion near Reno. The committee having the arrangements in charge is already active, and is preparing a very attractive program, including some unusually promising social features.

Physicians interested in the development of the program should communicate promptly with the secretary, Claude E. Piersall, Masonic Temple, Reno.

The complete program of the session will be published in CALIFORNIA AND WESTERN MEDICINE in due course of time.

SHALL PHYSICIANS OR LAYMEN DIRECT AND CONDUCT HEALTH WORK AMONG SCHOOL CHILDREN?

Of all health movements there is none more definite, better organized or more certain of its program than are school administrators in their campaign to have teachers and not physicians and health boards control the practice of diagnosis, prevention and curative medicine among school children.

Government publications paid for out of Federal taxes are extensively utilized for extensive propaganda. We have called attention before to what is said in some of these publications, and there is now before us a recent number of "School Life," which contains interesting reading. One writer, and he is a physician, outlines the history of physical education and health work. Among other illuminating statements we find these:

"School health agencies now control the machineries of communicable-disease prevention and control. In other words, the school health service, including its staff of physicians, dentists, and nurses, is best prepared to handle most of the positive health and physical efficiency program of the school."

"In its attempt to assert itself and to convince itself and the public of its value, finding its traditional field fairly well covered by the school health movement and wishing more or less independence of the school health agency, physical education began to cast about for other objectives outside of those concerned with the body. It found them in a large measure in certain mental, moral, and social values, that physical education claims are the invariable products, particularly of games, sports, and athletics. As a result, in at least one state there is a state director of physical education and a state director of school health."

"Let us assume that both the school health service and physical education are fundamentally interested in the positive health and physical efficiency of school children. If this is true, there is no reason why separate administration should be maintained. Independent supervision leads to duplication, friction, misunderstanding, economic waste, and, worst of all, to poor results. Some phases of the work may be overemphasized, others slighted."

Other government publications emphasize the rapid gain that is being made in wresting the control of medical work in schools from boards of health and placing it where they claim it belongs—under control of boards of educators.

COUÉ

"The more stupid they are the easier they get my theory," said Emile Coué, in an interview with Mollie Merrick of the San Francisco Examiner, upon his first arrival in San Francisco. Continuing, he pictured the "dumb," the "unconscious," the "mentally nil" as enjoying the benefits of the Coué philosophy with greater facility than do other persons.

Quite a compliment (?) to his followers, but that is his business; and that's all for Coué so far as we are concerned.

WHY NOT TRAVEL BY WATER

to the annual meeting of the California Medical Association?

In this number we carry a full-page advertisement of the Los Angeles Steamship Company, offering rather remarkable inducements in rates and comforts to those members, particularly those from Central and Northern California, who will enjoy going to the Southland by steamer. The service and schedule of the steamers Yale and Harvard offer a very convenient and pleasant way to the meeting. There will be a sailing from San Francisco at 4 p. m. Saturday, May 10, putting passengers into Los Angeles at 11 a. m. Sunday the 11th. Return sailings will be Friday, May 16, and Sunday the 18th, at 3 p. m. from Los Angeles, arriving in San Francisco at 10 o'clock the following morning. There will be additional sailings southbound on Tuesday, Wednesday and Friday, and northbound on Tuesday and Wednesday. So you may enjoy a week-end vacation and rest both going and coming from the meeting.

Very low round-trip fares include berth and meals. Special entertainment features will be provided by the ships' orchestra in the ballroom.

"CONGENITAL DISEASES"

During the first eight months of 1923, according to the State Board of Health, 46.3 per cent of the deaths among infants was due to "congenital" diseases.

It would be interesting, but unprofitable in the present state of knowledge and statistics, to speculate upon the proportion of these deaths that parents are responsible for. It would likewise be worthwhile, if possible, to trace the causes back through more distant ancestry and distinguish these from the influences of antenatal diseases and injuries to the child.

Another point more important perhaps than any of these would be a determination of the morbidity among the 53.7 per cent of infants who did not succumb to "congenital diseases." Undoubtedly, morbidity and injuries among infants before birth constitute not only the basis of many health failures in after life, but are unavoidably included under other headings in mortality statistics.

"THE KINDERGARTEN AND HEALTH"

Under this title, the Bureau of Education, Department of the Interior, Washington, has issued another pamphlet containing information of interest to physicians.

The position is taken that the most important function of a kindergarten is to serve as a public health station connecting the infant welfare station on the one hand with the health service under control of the public schools on the other.

Copies of this pamphlet may be secured from the government printing office in Washington.

Medicine in the Public Press

Board of Medical Examiners Endorse Doctors' College Bill—In a report to the Governor, a committee of the Board of Medical Examiners endorse the principles contained in Senate Bill 364, known as he medical college bill, introduced by the League for the Conservation of Public Health in the 1921 Legislature. That bill passed the Senate by an overwhelming majority, and was delayed and obstructed by a hostile committee in the Assembly, to which it was referred. It will be reintroduced at the next Legislature, and the strong and united support of the Board of Medical Examiners will be of help in securing its passage.

We hope, in the interest of public health, that Governor Richardson, who was not in office when the bill was before the Legislature, will endorse the recommendation contained in the official board's report, and lend his support to a movement that strikes at the source of legalized quackery in California.

Those "Controlled Surgeons" Again—We revert again to Mr. William G. Shepherd's article in Harper's Magazine about "controlled surgeons" who are out to save the public from incompetent and dishonest surgeons and whose names he could not give to the public because of their alleged ethics, supported by an oath "on the honor of a gentleman," that they would not utilize personal puffery to gain their ends. Three prominent members of the organization excepted by Mr. Shepherd in his drastic arraignment of the medical profession were in Vancouver recently on their way to the Orient. The Vancouver Sun, among other encomiums about these "controlled surgeons," says:

> Dr. William James Mayo is one of the renowned Mayo brothers whose outstanding work in the surgical world has made their clinic at Rochester, Minnesota, known the world over. In 1915, in conjunction with his brother, Dr. Charles Horace Mayo, he donated the sum of $2,000,000 to establish the Mayo Foundation for Medical Education and Research at Rochester, in affiliation with the University of Minnesota. Dr. W. J. Mayo was born at Le Sueur, Minn., June 29, 1861, and gained his M. D. at the University of Michigan in 1883, later being awarded the A. M. degree. In 1905, at Edinburgh, he was made a Fellow of the Royal College of Surgeons. Other degrees held by Dr. W. J. Mayo and the year in which they were granted are LL. D., University of Toronto, 1906; University of Maryland, 1907; University of Pennsylvania, 1912; D. Sc., University of Michigan, 1908; Columbia, 1910; F. R. C. S., England, 1913; Ireland, 1921.
>
> Dr. Franklin H. Martin, director-general of the American College of Surgeons, is also a distinguished man in his profession. His research work has been of great value to the medical world. Dr. Richard H. Harte is also widely known and has contributed many valuable works to the world of medical science. He is the author of the "Handbook of Local Therapeutics." During the Great War Dr. Harte distinguished himself serving overseas, and his work received much recognition from allied nations. He was mentioned in the dispatches of General Haig and received the British Order of St. George and St. Michael. Dr. Harte was made a "Companion of the Order of Leopold" by the King of Belgium, and "for conspicuous service rendered to the British Expeditionary Force" was made a Fellow of the Royal College of Surgeons, Ireland.

This intimate and probably accurate biographical data has earmarks familiar at least to all men engaged in any way in publicity, and its source probably will not be misunderstood by many intelligent readers. This memorandum is not intended as an arraignment of these prominent men for their newspaper publicity. They are all excellent and prominent physicians. What we would like to know is, have these men lived up to the standards Mr. Shepherd says these "controlled surgeons" are sworn to sustain?

Reptiles and Angels—Doctor, some evening when you are too tired to talk, gently remove your telephone receiver, get into a semi-reclining position, light a good cigar, pick up your March Atlantic and read Mr. Charles D. Stewart's delightful article with the above title. A copy of this article would save you many wearing explanations, and be good medicine for some of your more intelligent "heart cases."

Does This Apply in California?—Under a medical slang title of "The Challenge of the Chronic Patient" (Survey) a writer, in discussing the present service being rendered to patients suffering with chronic diseases, says: "A recent survey of the leading institutions for chronic patients, most of which call themselves homes for incurables, shows that almost without exception the scientific study of disease is ignored, and even the importance of medical treatment is minimized. Apparently, these institutions work on the principle that their patients are incurable, beyond all hope of even partial rehabilitation, and that their sole function is the maintenance of a home where such unfortunates may linger until they die.

". . . It is not only the individual who suffers from this neglect. Many inmates of almshouses remain public pensioners for years. They are accepted as human derelicts who, to appease the rudimentary public conscience, must be supported and maintained, preferably where they will not be seen, until death relieves them and the taxpayer from further worry and responsibility. Yet many of them, if they were to get a fighting chance, could be rehabilitated and returned as useful members of the community."

Selma School Nurse's Report Contains Interesting Features—The nurse says in her medical report that all children have been weighed and "it was gratifying to find that many of the children have gained since last weighing. . . . Four children have been taken to doctors, ten to the optometrist, and one sent to the dentist."

Is the Quality of Medical Practice Improving?—"In spite of the attainments of preventive medicine," says Hospital Social Service editorially, "the vast majority of people of New York State and an enormous percentage of the people of the United States, over 90 per cent probably, have, to a large extent, the same kind of medical service, or in many instances a poorer quality of medical service than they had twenty-five or thirty years ago. Even where public health agencies are thickest, an all-round preventive service is not universal in any given unit of population. Certain sanitary and isolation laws are the only health measures which affect every member of a given community. Other health measures such as work with malnourished children, maternity care, and even tuberculosis clinics are sporadic, affect only a limited clientele and, however sensitive, do not reach all the people who might benefit by them."

And I Learned My Medicine from Her—A new idea in diet has recently been promulgated by a dietetic "savant." It is to the effect that a person's temperament is made and changed at will by the effects of vegetables. Potatoes, it is said, "balance the mind and calm it." Carrots are excellent antidotes against jealousy; spinach speeds up ambition; beans develop the artistic sense; parsley produces sadness; but the good old-fashioned baked beans stimulate the desire for work. A wag has said that this savant's findings for the first time explain why the Irish race have such calm temperaments. To secure all of these results, the patient must plant, cultivate and harvest the vegetables with his own hands, and for that statement, we will forgive his dreamings.

Reaction Against School Authorities Practicing Dentistry—From New York and several other centers, the practice of dentistry by boards of education is being severely criticized and in some places stopped altogether. The charge is being made that schools have no more business practicing dentistry or medicine—they are doing both—than they have to practice law or engineering. It is not understood

that there is opposition to the movement for good dentistry for school children as well as for all other persons, nor is their criticism of legitimate movements to insure free dental work for those who can't pay for it. The main point in the opposition that is cropping out in many places is against this work being done under boards of education, and in some places, it is said, by inadequately educated technicians.

Back to States' Rights!—A call for release from Federal interference in local affairs and for relief from Federal taxes that amount to five times those that the States collect. Physicians who care to interest themselves in the ever-broadening field of governmental interference in private business, and who are opposed to State medicine as they are opposed to governmental operation of other businesses are invited to read an article under the above title by Governor Ritchie of Maryland, in the March number of World's Work. Governor Ritchie shows that the enormous Federal taxes we now pay are only in their infancy if Federal subsidies to States for this or that purpose are continued. Legislation of this character is before Congress now.

San Diego Has Eleven New Sheppard-Towner Health Centers—A Sheppard-Towner nurse of San Diego reports the establishment of eleven new health centers. According to local reports, "San Diego county is one of the five very fortunate counties in California to have a Sheppard-Towner nurse, whose work is that of general health supervision of children during the impressionable pre-school age covering the period from birth to six years, inclusive."

Wheat Valorization of Medical Fees—"In view of the fluctuation of the Hungarian currency, the medical profession has been obliged to raise fees almost from week to week," according to the Budapest correspondent of the Journal of the American Medical Association. "Although the increase has never corresponded to the depreciation of the currency, and, in fact, medical fees are the only ones in Hungary which do not reach the so-called gold parity, yet the general press has commented on the raise of medical fees as inhuman and not worthy of the medical profession. Some medical journals even have had disputes with the lay press on this subject; but, judging from the correspondence addressed to the journals, it seems that the general public believes that the physician should be satisfied with only half pay for his work, the other half being taken out in love for his work. These discussions have led some branches of the National Medical Association to introduce the wheat valorization: a medical consultation is priced at the value of 5 kg. of wheat. The fees paid at present not being equivalent to 2 kg. of wheat, the increase is considerable; but, even so, it is only half of the pre-war fees, the price of a medical consultation being then at least 2 kronen (40 cents), the value of at least 10 kg. of wheat. The board of the association has stated that, in accordance with its well-known altruism, officials and private clerks are made exceptions to the rule, and will pay according to their financial means."

The Blood "Donor" Problem—The frequent legal complications connected with the transfusion of blood and the "news value" so frequently attached to one phase or another of the problem warrants consideration of the whole question as of the first importance professionally, and from an economic standpoint.

Most of the economic problem centers in the rights of "donors." These people often claim about all the injuries to their health by the removal of small amounts of blood that one could bring about with an ax. Often courts sustain them in their claims. Sometimes there are unavoidable accidents, even in the hands of experienced physicians, and it does appear that occasionally an operator is incompetent. In all such instances, it is perfectly proper that responsibility be fixed and reparation made by reasonable compensation. This is a matter easily cared for by insurance and all physicians, and hospitals should see that their policies protect them in this field. The "donor" also should be protected by special insurance provisions, in addition to any protection they may have under the industrial accident law.

It is a well-known fact that safe "blood grouping" between "donor" and patient should be made and recorded before any transfusion is given. Physicians have been convicted upon evidence of their colleagues for unfavorable results where this procedure was not adequately followed. There is no excuse in law or ethics for such carelessness, and it is doubtful if insurance protection could be secured which would protect against it. Criminal liability has been established in some cases of this kind.

Treating the Ambulatory Sick in New York City—The annual report of the United Hospital Fund of New York shows that the 225 "free" and "part pay" clinics of the city treated 1,250,000 citizens during the year, or about one-fifth of the entire population. The amount collected from the patients is not given, but some 3000 physicians were the only ones who rendered their services free. Basing the costs of these services upon the average costs worked out by other clinics, they cost someone at least $2,000,000. Based also upon average statistics, at least half and probably more was paid for by the patients in small fees. Some very interesting figures are being collected here and there as to the funds being collected from patients by health centers and clinics. We will have more to say about these from time to time.

Modesto Handles Diphtheria Immunization in a Commendable Manner—Modesto, like other communities, has the problem of protecting its young inhabitants against the epidemic of diphtheria. J. W. Morgan, the city health officer, took charge of the educational publicity, and secured an appropriation from the city authorities to purchase the materials. He then made arrangements with the physicians of the community to give the complete immunization to all comers at the nominal charge of $3 per patient. Citizens able to do so pay their own doctors, and those unable to pay were allowed to go to the doctor of their choice, and the city paid the $3 to the doctor.

Many cities and other communities in Eastern States follow this method for diphtheria and other medical services, but it's rare enough to comment upon in California. Here we establish special "clinics" with all the fuss and "labeling" of the poor to render this and other simple services which all physicians are prepared to render in the offices.

Medical Examinations by Family Physicians—Since our articles upon the subject of who is competent to make medical diagnosis began to appear, our correspondents report from several places in California a tendency to give an educated physician's opinion precedence over scales, measuring rods, and the new ouija diagnostic board, patented by a Government bureau. In other places, the comparisons are still made between the reliability of the doctor and the ouija board or scales in distinguishing between health and disease.

In Fresno, Miss Lillian Dahlgren, nutrition specialist, emphasizes the willingness of the doctors to examine children who come to them in their offices, and they have examined many. The mechanical diagnostic devices are still maintained also, and their readings apparently interpreted and accepted without physician's examinations in many instances. We presume that physicians furnished the data for that part of the report which says: "Examination of the children has revealed that three-fourths have carious teeth, diseased tonsils and adenoids, enlarged glands of the neck, round shoulders, flat chests, anaemia or

lowered body temperature. Many have serious defects of vision and ear diseases."

The Department of Agriculture Clinics—The department of agriculture does not propose to be behind the Department of Labor or any of the other numerous departments at Washington, who are practicing medicine by mail. Like the others, they have the great Government printing plant at their call. They have mail-franking privileges, and their clerks are as competent to give medical advice as are those of the other political bureaus. One of their recent expensive health sermons by mail told the world that a soup of chopped creamed lettuce, spinach, and cabbage was desirable for children because it contained vitamins, and that the addition of a little onion would add flavor plus more vitamins.

Now, isn't that interesting and illuminating? It sounds like the action of another department that started out to equip all mail-delivery wagons with scales to weigh all the babies with. This policy of more medicine in government and more government in medicine is still popular—at Washington.

San Luis Obispo Vaccination Clinic — The clinic operated by the San Luis Obispo health board has succeeded in vaccinating 229 persons during the period of its existence. The work was performed for persons in all walks of life free. It is said that most of the citizens went to their family doctors for vaccination, and that those who were able to do so paid for the service, and that others had it for nothing.

Schools' Responsibility for Child Welfare Repudiated—In a recent address, Edward I. Cook, professor of social science of the Junior College of Sacramento, is quoted as having said that "there has been a tendency of late to shift more and more responsibility for school children upon the shoulders of school officials. This is unjust. Taxpayers and others who should be interested in the welfare of children pay little or no attention to them. When an occasion arises in which the children's actions are criticized, the school officials are blamed for it."

"It is up both to the college and to the citizens of the city," said the speaker, "to teach students the duties of citizenship. We must teach them, by example, the road to good citizenship, and not merely hand out a prescription by which it may be attained."

Some of these days when educational leaders, less far-seeing than Cook, realize the trouble they have invited and the dangers it is bringing to the worthy cause of education, they will be glad to shift more responsibility back to parents from whom their propaganda has wrested it. They will be glad to ask the family physician to again assume the duties and responsibilities of health advice; and possibly the movement in some States to wrest spiritual development from its traditional position may be arrested.

The High Cost of Wasting — Ida Clyde Clarke (editorial, Pictorial Review) calls us a nation of wasters. We waste our time and our energy and our talents and our money, and, above all, we waste our power. We have enough organizations and enough professional reformers and enough people with the instinct for reform to clean up the country generally, if we really wanted to do it. But the trouble is we are not interested in concrete reforms. We don't want to see the end. We seem to be afraid of finishing things. We like the all-day-sucker variety of reform. We will work in a frenzy of zeal for anything that is intangible and afar off. Such loose terms as "Americanism" and "welfare" are music to our ears, and we simply adore the very thought of "standardization." Many of our great "movements" sweep majestically on toward nothing. Yet in spite of this we fall into line quite readily with every new idea that is suggested.

Medical School News

Stanford University School of Medicine (reported by W. Ophuls, dean)—The Medical Faculty has reorganized its schedule in such a way as to reduce the required hours to the minimum required by the laws of the State of California, which is 4000 for the instruction in the first four years in medicine. Three thousand eight hundred hours of this will be prescribed, leaving 200 hours for elective work. It is hoped that in the course of time the amount of elective work can still be further increased.

It has been pointed out frequently that, although physicians naturally should be leaders in public health movements, very little if any attempt is made to teach the students in medical schools personal hygiene and supervise their activities in such a way as to keep them in good health and physically fit. In order to overcome this just criticism, the Medical Faculty has decided to appoint a physical adviser to the medical students at the Medical School in San Francisco, who will take a personal interest in them and will encourage them to take the necessary amount of physical exercise in one form or another.

There has been a good deal of complaint in and outside of medical schools that there is a large amount of duplication in the different courses that make up the medical curriculum. There is no question that this is one of the causes of the overburdening of the medical students with required work. In order to obtain accurate data as to the actual state of affairs, the Medical Faculty has appointed a committee on correlation of courses, who have been asked to study the situation and make a thorough report with suggestions for improvement.

Changes in Faculties—E. B. Towne was promoted from the rank of Assistant Professor of Surgery to the rank of Associate Professor of Surgery, and Jean Oliver was promoted from the rank of Associate Professor of Pathology to that of full Professor of Pathology, these promotions to take effect with the beginning of the new college year, on September 1.

George de F. Barnett, who has been in private practice at Palo Alto for several years, has been recalled to the Medical School as Associate Professor of Medicine. Professor Barnett will devote most of his time to our medical service at the San Francisco Hospital.

Mr. Maurice L. Tainter has been promoted from assistant in Pharmacology to instructor in Pharmacology.

Health Insurance in Colleges—"The idea of health insurance, bordering on the old 'lodge practice idea,' has invaded the campus at the University of California, American Medicine recently pointed out," says the Ohio State Medical Journal editorially.

"This great American university with 'no tuition fees, but certain small incidental fees,' exacts from the student a 'fee' for both the sick and the well.

"Each student is required to pay $6 annually. This sum is the premium charged for health insurance, not 'only entitling one to examination, but to full care of his health for that period.'

"It is further shown that there are between seven thousand and eight thousand students at the university who pay the fee. It is estimated that the revenue is about $42,000, which goes to maintain a small hospital and staff of physicians.

"It comes as a surprise that such an institution as the University of California would foster such paternalistic measures as health insurance, not alone from the immediate effect upon its students, but from the 'viewpoint' which is being developed toward relationship of the individual toward society."

PROGRAM

THE FIFTY-THIRD ANNUAL SESSION
OF THE CALIFORNIA MEDICAL ASSOCIATION TO BE HELD
AT LOS ANGELES, CALIFORNIA, MAY 12, 13, 14, 15, 1924

LOS ANGELES BILTMORE
Headquarters for Meeting of California Medical Association

OFFICERS AND COMMITTEES, 1924

T. C. Edwards, Salinas, President.
Granville MacGowan, Los Angeles, President-Elect.
W. H. Strietmann, Oakland, First Vice-President.
R. A. Cushman, Santa Ana, Second Vice-President.
Emma W. Pope, San Francisco, Secretary.
W. E. Musgrave, San Francisco, Editor.
Hartley F. Peart, San Francisco, General Counsel.
Hubert T. Morrow, Los Angeles, Assistant General Counsel.
Mr. William H. Barry, Superintendent of Publications.

COUNCILORS

First District—Paul M. Carrington, San Diego (1924)—San Diego, Riverside, Orange, San Bernardino, and Imperial Counties.

Second District—William H. Kiger, Los Angeles (1925)—Los Angeles, Santa Barbara, Ventura, and Kern Counties.

Third District—W. M. Stover, San Luis Obispo (1926)—San Luis Obispo and Monterey Counties.

Fourth District—Fred R. DeLappe, Modesto (1925)—Fresno, Kings, Tuolumne, Merced, Mariposa, Madera, Tulare, and Stanislaus Counties.

Fifth District—David A. Beattie, San Jose (1926)—Santa Clara, San Mateo, San Benito, and Santa Cruz Counties.

Sixth District—Walter B. Coffey, San Francisco (1926)—San Francisco County.

Seventh District—Edward N. Ewer, Oakland (1926)—Alameda, Contra Costa, San Joaquin, and Calaveras Counties.

Eighth District—James H. Parkinson, chairman, Sacramento (1925)—Sacramento, Amador, El Dorado, Alpine, Placer, Nevada, Yuba, Sutter, Sierra, Yolo, Butte, Plumas, Lassen, Mono, Inyo, Glenn, Colusa, Tchama, Shasta, Modoc, and Siskiyou Counties.

Ninth District—James H. McLeod, Santa Rosa (1926)—Marin, Sonoma, Lake, Mendocino, Solano, Napa, Del Norte, Humboldt, and Trinity Counties.

Councilors-at-Large—O. D. Hamlin, Oakland (1925); Rene Bine, San Francisco (1926); George H. Kress, Los Angeles (1926); William T. McArthur, Los Angeles (1926); Saxton T. Pope, San Francisco (1924); C. L. Curtiss, Redlands (1926).

DELEGATES AND ALTERNATES TO A. M. A.

Delegates—Charles D. Lockwood, Pasadena (1924); Victor G. Vecki, San Francisco (1924); C. Van Zwalenburg, Riverside (1925); E. C. Fleischner, San Francisco (1925).

Alternates—Walter V. Brem, Los Angeles (1924); Harry J. Spiro, San Francisco (1924); Albert Soiland, Los Angeles (1925); Walter C. Alvarez, San Francisco (1925).

COMMITTEES

Committee on Scientific Program—Emma W. Pope, chairman; Lemuel P. Adams, Oakland (1926); F. M. Pottenger, Monrovia (1927); F. F. Gundrum, Sacramento (1924); Walter V. Brem, Los Angeles (1925).

Committee on Arrangements—William H. Kiger, chairman; Harlan Shoemaker, W. T. McArthur.

Entertainment Committee—George H. Kress, chairman; Donald J. Frick (golf), W. T. McArthur, Harlan Shoemaker.

Executive Committee—Rene Bine, chairman; T. C. Edwards, Granville MacGowan, William H. Strietmann, James H. Parkinson, Emma W. Pope, W. E. Musgrave, Hartley F. Peart.

Auditing Committee—Rene Bine, chairman; Saxton T. Pope.

Committee on Bunnell Memorial—Emmet Rixford, chairman; Saxton T. Pope, Egerton Crispin.

Commercial Exhibits—William Duffield.

Publicity for 1924 State Meeting—Mr. Celestine J. Sullivan.

Assistant Secretaries for Convention—Elizabeth McVeen Saphro, Belle Wood Comstock, Brett Davis, John H. Woolsey.

GENERAL HEADQUARTERS AND MEETING HALLS

All meetings will be held in the Los Angeles Biltmore. Information and registration desks will be maintained in the Galleria.

GENERAL OUTLINE OF THE MEETINGS

There will be three sessions on Monday, Tuesday and Wednesday, and two sessions on Thursday.

Uniform hours for all meetings are provided for: 10 a. m. to 12:30 p. m.; 2 to 4:30 p. m., and 8 to 10 p. m. The time of each meeting is shown in the diagram.

General Sessions—Two general sessions open to mem-

DIAGRAM OF MEETINGS

Sunday May 11	8-10									Council
Monday May 12	10-12:30	General Sessions								
	2-4:30	General Surgery	Radiology	Obstetrics	Dermatology Syphilology	Eye, Ear, Nose and Throat	Pathology	Neuropsychiatry	Anesthesiology	Council
	8-10	House of Delegates		Pediatrics	Urology	Orthopedics	Industrial Medicine			
Tuesday May 13	10-12:30	General Medicine				Eye, Ear, Nose and Throat	Open Meeting Industrial Medicine		Tech. Spec. Med. Soc. Workers	
	2-4:30	General Surgery	Radiology	Pediatrics	Urology	Orthopedics	Pathology	Neuropsychiatry	Anesthesiology	Council
	8-10		DINNER	DANCE	IN	BALLROOM				
Wednesday May 14	10-12:30	League							Tech. Spec. Physiotherapist	
	2-4:30	General Surgery	General Medicine	Obstetrics	Dermatology Syphilology	Eye, Ear, Nose and Throat	Pathology	Neuropsychiatry	Anesthesiology	Council
	8-10	House of Delegates								
Thursday May 15	10-12:30	General Sessions								
	2-4:30	General Medicine	Radiology	Pediatrics	Urology	Orthopedics	Industrial Medicine	Neuropsychiatry	Anesthesiology	Council

bers and guests will be held on Monday and Thursday mornings.

Section on Medical Economics, Education, Public Health and Hospitals—This meeting is held under the auspices of the League for the Conservation of Public Health on Wednesday morning.

The following sections will hold meetings:

Anestheslology.
Dermatology and Syphilology.
Eye, Ear, Nose and Throat.
General Medicine.
General Surgery.
Industrial Medicine and Surgery.
Neuropsychiatry.
Obstetrics and Gynecology.
Orthopedic Surgery.
Pathology and Bacteriology.
Pediatrics.
Radiology, Roentgenology and Radium Therapy.
Technical Specialties.
Urology.

Council Meetings

First Meeting—Sunday, May 11, at 8 p. m.
Second Meeting—Monday, May 12, at 2 p. m.
Third Meeting—Tuesday, May 13, at 2 p. m.
Fourth Meeting—Wednesday, May 14, at 2 p. m.
Fifth Meeting—Thursday, May 15, at 2 p. m.

Meetings of the Council With the Presidents and Secretaries of Constituent Societies

All members of the Council and all presidents and secretaries and assistant secretaries of constituent societies are requested to be present at a luncheon on Tuesday, May 13, at noon. Matters of great importance will be discussed.

HOUSE OF DELEGATES

Membership

Councilors—First District, Paul M. Carrington (1924); Second District, William H. Kiger (1925); Third District, W. M. Stover (1926); Fourth District, Fred R. DeLappe (1925); Fifth District, David A. Beattie (1926); Sixth District, W. B. Coffey (1926); Seventh District, Edward N. Ewer (1926); Eighth District, James H. Parkinson (1925); Ninth District, James H. McLeod (1926).

Councilors-at-Large—O. D. Hamlin (1925), Rene Bine (1926), George H. Kress (1926), William T. McArthur (1926), Saxton T. Pope (1924), C. L. Curtiss (1926).

DELEGATES	ALTERNATES
Alameda County (6)	
L. P. Adams	E. H. Barbera
E. E. Brinckerhoff	F. W. Browning
W. A. Clark	R. A. Glenn
W. S. Kuder	Channing Hall
Gertrude Moore	W. E. Mitchell
George Rothganger	A. C. Smith
Butte County (1)	
Percy L. Hamilton	Dan H. Moulton
Contra Costa County (1)	
Hall Vestal	L. St. John Hely
Fresno County (2)	
Guy Manson	Thomas F. Madden
J. R. Walker	L. R. Willson
Glenn County (1)	
Etta S. Lund	T. H. Brown
Humboldt County (1)	
Carl T. Wallace	E. L. Cottrell
Imperial County (1)	
Eugene LeBaron	H. B. Graeser
Kern County (1)	
F. A. Hamlin	F. J. Gundry
Lassen-Plumas Counties (1)	
W. W. Peterson	Fred J. Davis
Los Angeles County (25)	
William H. Gilbert	John D. Gillis
Charles D. Lockwood	Isaac H. Jones
H. G. McNeil	Elmer E. Kelly
Lyle G. McNeile	John G. Mackey
T. C. Myers	Percy T. Magan
E. M. Pallette	V. R. Mason
A. J. Scott, Jr.	A. W. Moore
F. A. Speik	A. T. Newcomb
Philip H. Stephens	John P. Nuttall
Joseph K. Swindt	James F. Percy
O. I. Tower	A. R. Rogers
Packard Thurber	LeRoy B. Sherry
A. H. Zeiler	C. P. Thomas
John V. Barrow	E. G. Butt
Michael Creamer	George L. Cole
Robert V. Day	A. S. Granger
George Dock	Robert B. Hill
William Duffield	James B. Luckie
Joseph M. King	Salvatore P. Monaco
Carl H. Parker	F. L. Rogers
Robert E. Ramsay	H. H. Sherk
Harlan Shoemaker	O. R. Stafford
Albert Soiland	F. C. Swearingen
Williard J. Stone	R. A. Terry
Clarence G. Toland	H. P. Wilson

	Marin County (1)
H. O. Howitt	C. A. DeLancey
	Mendocino County (1)
L. K. Van Allen	Harper Peddicord
	Merced County (1)
Frank W. Yocom	J. L. Mudd
	Monterey County (1)
W. R. Reeves	J. A. Beck
	Napa County (1)
H. R. Coleman	N. T. McArthur
	Orange County (1)
Harry E. Zaiser	R. A. Cushman
	Placer County (1)
Sidney Talbot	Harry M. Kanner
	Riverside County (1)
Thomas A. Card	A. L. Bramkamp
	Sacramento County (2)
F. F. Gundrum	W. A. Beattie
G. Parker Dillon	A. K. Dunlap
	San Benito County (1)
E. E. McKay	T. F. Thorpe
	San Bernardino County (2)
F. H. Folkins	A. T. Gage
E. J. Eytinge	E. L. Tisinger
	San Diego County (3)
Thomas O. Burger	M. C. Harding
Robert Pollock	L. H. Redelings
George B. Worthington	Martha Welpton
	San Francisco County (16)
H. E. Alderson	C. H. Arnold
W. C. Alvarez	H. C. Coe
L. H. Briggs	Orrin S. Cook
Edmund Butler	L. A. Emge
Joseph Catton	T. H. Kelly
W. E. Chamberlain	A. S. Musante
E. C. Fleischner	P. H. Pierson
M. R. Gibbons	C. B. Pinkham
J. H. Graves	R. L. Richards
Sol Hyman	F. H. Rodenbaugh
W. J. Kerr	K. L. Schaupp
A. R. Kilgore	J. A. Sperry
J. C. Neel	Harry Spiro
H. A. L. Ryfkogel	J. F. Sullivan
William E. Stevens	W. C. Voorsanger
V. G. Vecki	S. C. Way
	San Joaquin County (2)
Dewey R. Powell	J. D. Dameron
Margaret Smyth	Charles R. Harry
	San Luis Obispo County (1)
A. H. Wilmar	W. M. Stover
	San Mateo County (1)
W. C. Chidister	W. O. Callaway
	Santa Barbara County (1)
Franklin R. Nuzum	George R. Luton
	Santa Clara County (2)
L. Boonshaft	J. H. Shephard
George L. Barry	N. H. Bullock
	Santa Cruz County (1)
P. T. Phillips	F. H. Koepke
	Shasta County (1)
Sherman T. White	Ferdinand Stabel
	Siskiyou County (1)
Robert H. Heaney	
	Solano County (1)
E. A. Peterson	James W. Brownlie
	Sonoma County (1)
H. S. Rogers	F. O. Pryor
	Stanislaus County (1)
E. R. McPheeters	C. E. Pearson
	Tehama County (1)
Walter Gavey	Frank L. Doane
	Tulare County (1)
Austin V. Miller	Roy N. Fuller
	Tuolumne County (1)
Eugene H. Reid	Homer D. W. Rose
	Ventura County (1)
F. E. Blaisdell	C. E. Schultze
	Yolo County (1)
H. D. Lawhead	W. E. Bates

Yuba-Sutter Counties (1)

FIRST MEETING OF HOUSE OF DELEGATES

Music Room, Monday, May 12, at 8 p. m.

Order of Business

1. Calling to Order.
2. Roll Call.
3. Report of President.
4. Appointment of the Reference Committee by the President.
5. Report of the Council, James H. Parkinson, chairman (presented before the General Sessions).
6. Report of the Committee on Scientific Program, Emma W. Pope, chairman.
7. Report of the Auditing Committee, Rene Bine, chairman.
8. Report of Committee on Bunnell Memorial, Emmet Rixford, chairman.
9. Report of Secretary, Emma W. Pope.
10. Report of Editor, W. E. Musgrave (presented before General Sessions).
11. Unfinished Business.
12. New Business.
13. Reading and Adoption of Minutes. Adjournment.

SECOND MEETING OF HOUSE OF DELEGATES

Music Room, Wednesday, May 14, at 8 p. m.

Order of Business

1. Calling to Order.
2. Roll Call.
3. Announcement of the Place of Meeting, 1925.
4. Election of Officers:
   (a) Election of President-Elect.
   (b) Election of Vice-President.
   (c) Election of Councilors.
   First District—Incumbent, Paul M. Carrington (1924)—San Diego, Riverside, Orange, San Bernardino, and Imperial Counties.
   Councilor-at-Large—Saxton T. Pope (1924).
   (d) Election of Member on Program Committee (four years)—Incumbent, F. F. Gundrum (1924).
   (e) Election of two Delegates to A. M. A. (four authorized)—Incumbents, Charles D. Lockwood (1924); Victor G. Vecki (1924).
   (f) Election of two Alternates to A. M. A. (four authorized) — Incumbents, Walter V. Brem (1924); Harry J. Spiro (1924).
5. Report of Reference Committee.
6. Presentation of President.
7. Presentation of President-Elect.
8. Reading and Adoption of Minutes. Adjournment.

GENERAL INFORMATION

Assistant Secretaries—Elizabeth McVeen Saphro, Belle Wood Comstock, Brett Davis and John H. Woolsey—can be reached through the Registration Desk whenever needed by officers of scientific sections for information or assistance with their programs or with other problems which may arise.

Registration and Information—The registration and information desk is located in the Galleria. All persons attending the Convention, whether members or not, are requested to register immediately on arrival. Beginning Sunday, May 11, registration secretaries will be on duty daily from 9 a. m. until 4 p. m.

Guests and Visitors—All guests and visitors are requested to register. All General Sessions and scientific meetings are open to visitors and guests.

Badges—Two kinds of badges will be issued by the registration bureau. All members of the California Medical Association will be issued the usual membership badge. A special badge will be issued to all guests and fraternal delegates who are attending the meetings upon official invitation of the Association.

Ribbons for Delegates and Alternates—The usual official ribbon is provided for this purpose and will be issued to all persons authorized to wear it.

Membership Cards—Every member in good standing in the California Medical Association has been issued an official membership card for 1924. This card may be useful in connection with railroad tickets, and all members are requested to have their cards with them.

Suggestions and Constructive Criticism—The officers and committees have tried to do everything possible to make the meeting a success. Suggestions and constructive criticism calculated to make future meetings more useful will be welcomed by any of the officers or by the assistant secretaries. Complaints of whatever character should be made to the Registration Desk where they will receive the attention of the assistant secretaries.

Social Program—The social program is in the hands of the Entertainment Committee, and is published on page 158 of this issue.

Press Representatives—Accredited press representatives are welcome and they will be accorded every possible courtesy.

Publicity—All publicity is in the hands of the Publicity Committee. It is requested that all persons having matter of "news" value report it to this committee. It is particularly requested that all "news" about any phase of the Convention be given out through the official committee and in no other way.

Rules Regarding Papers and Discussions at the State Meeting—Upon recommendation of the Executive Committee the following rules regarding papers have been adopted by the Council:

1. The maximum time that may be consumed by any paper is fifteen minutes, provided that not to exceed ten minutes' latitude may be allowed invited guests at the discretion of the presiding chairman.

2. Motions from the floor to extend the time of an author may not be entertained by the presiding officer.

3. The maximum time permitted any individual discussant on any paper is four minutes. This also applies to the author in closing his discussion. No discussant may speak more than once upon the same subject.

4. A copy of each and every paper presented at the State meeting must be in the hands of the chairman or

secretary of the section or in the hands of the general secretary before the paper is presented.

5. Manuscripts not accepted by the Executive Committee for publication in the Journal will be returned to the author as soon as practicable. Authors desiring to publish their paper elsewhere than in the Journal may have their manuscript returned to them upon written request to the State Secretary.

6. No paper will be accepted by the General Program Committee nor by Section Program Committees unless accompanied by a synopsis of not to exceed fifty words.

7. Papers shall not be "read by title."

8. No member may present more than one paper at any one State meeting, provided that members may present additional papers before Sections on Technical Specialties; and provided further, that a member may be a collaborator on more than one paper, if these papers are presented by different authors.

9. Failure on the part of an author to present a paper precludes acceptance of future papers from such author for a period of two years, unless the author explains to the satisfaction of the Executive Committee his inability to fulfill his obligation.

GENERAL SESSIONS

T. C. Edwards, M. D., President,
224½ Main Street, Salinas.

Emma W. Pope, M. D., Secretary,
1016 Balboa Building, San Francisco.

FIRST GENERAL MEETING

Music Room, Monday, May 12, 10 a. m.

1. *President's Annual Address* — T. C. Edwards, M. D., 224½ Main Street, Salinas.
2. *Address of President-Elect* — Granville MacGowan, M. D., Brack Shops Building, Los Angeles.
3. *Annual Report of the Council* — James H. Parkinson, M.D., Chairman, 1601 I Street, Sacramento.
4. *Report of the Editor* — W. E. Musgrave, M. D., 806 Balboa Building, San Francisco.
5. *Report of the Legal Department* — Hartley F. Peart, General Counsel, 514 Humboldt Bank Building, San Francisco.

SECOND GENERAL MEETING

Medical Economics, Education, and Hospitals

This Section is under the auspices of *The League for the Conservation of Public Health*

Dudley Smith, M. D., President,
Oakland.

W. T. McArthur, M. D., Secretary,
Los Angeles.

Open to the public as well as to all members of the State Association

Music Room, Wednesday, May 14, 10 a. m.

1. *The Increasing Importance of Medical Leadership and Public Health Education* — Dudley Smith, M. D., President League for the Conservation of Public Health.
2. *What Hospital Betterment Means to California*—W. E. Musgrave, M. D., Chairman Hospital Betterment Service Bureau.
3. *The Child Welfare Work of California Federation of Women's Clubs* — Mariana Bertola, M. D., State Chairman Division of Child Welfare.
4. *What Does the Public Want?* — William Duffield, M. D., Los Angeles.
5. *Is the State Spending Your Money for the Best Interests of the Whole People?*—Hon. C. C. Young, Lieutenant-Governor of California.

THIRD GENERAL MEETING

Music Room, Thursday, May 15, 10 a. m.

1. *Address by President of American Medical Association*—Ray Lyman Wilbur, M. D., Stanford University, Palo Alto.
2. *Relation of the Doctor to Expert Medical Testimony*—Judge Paul D. Burke, Los Angeles.
3. *The Relation of Laboratory to Clinical Medicine*—Paul G. Woolley, M. D., Assistant Professor of Pathology, Detroit College of Medicine and Surgery, Detroit, Michigan.
4. *Indications for Splenectomy*—Alfred Decastello, M. D., Professor and Primarazt of Medicine, University of Vienna, 30 Burggasse, Vienna.

ANESTHESIOLOGY SECTION

R. F. Hastreiter, M. D., Chairman,
Brockman Building, Los Angeles.

Edwin Forrest Boyd, M. D., Secretary,
Auditorium Building, Los Angeles.

MEETING

Monday, May 12, 2 p. m.

1. Chairman's Address: *The History and Progress of Anesthesia in California* — R. F. Hastreiter, M. D., Brockman Building, Los Angeles.

   Secretary's Report.
2. *Further Studies in Nitrous Oxide Percentages* — Mary E. Botsford, M. D., 807 Francisco Street, San Francisco; Dorothy A. Wood, M. D., 1390 Seventh Avenue, San Francisco.
3. *Paravertebral or Regional Anesthesia*—Roy H. Johnson, M. D., Auditorium Building, Los Angeles; Charles E. Phillips, M. D., Pacific Mutual Building, Los Angeles.
4. *Sacral Anesthesia and Proctological Surgery* — A. J. Murrietta, M. D., Pacific Mutual Building, Los Angeles.
5. *The Antagonistic Functions of the Uterus in Relation to Regional Nerve Blocking* — H. T. Cooke, M. D., 307 South Hill Street, Los Angeles.
6. *The Manufacturer and Standardization of Nitrous Oxide Gas*—Donald E. Baxter, M. D., 910 N. Brand Street, Glendale.

Social—There will be a barbecue at one of the nearby Country Clubs one afternoon and evening, a banquet at the Biltmore, and a visit to the plant of Donald E. Baxter, M. D., Glendale, to witness the manufacture of nitrous oxide, ethylene oxygen and other interesting factors incident to anesthesia.

Pacific Coast Association of Anesthetists

Joint meeting with the Section on Anesthesiology of the California Medical Association

Mary E. Botsford, M. D., President,
807 Francisco Street, San Francisco.

Neil C. Trew, M. D., Secretary,
2919 Waverly Avenue, Los Angeles.

FIRST MEETING

Tuesday, May 13, 2 p. m.

1. *Presidential Address* — Mary E. Botsford, M. D., 807 Francisco Street, San Francisco.
2. *Studies of Arrythmias by the Electrocardiograph*—J. M. Wilson, M. D., Citizens' Savings Bank Building, Pasadena.
3. *Anesthesia for Prostatectomies* — John R. Burrows, M. D., 2238 California Street, San Francisco.
4. *Ethylene Oxygen Anesthesia—A New Apparatus for Giving Gases in Mixture* — John S. Lundy, M. D., Cobb Building, Seattle, Wash.
5. *Gas Oxygen Anesthesia in Thyroidectomies*—Mary F. Kavanagh, M. D., 701 Post Street, San Francisco.

SECOND MEETING

Wednesday, May 14, 2 p. m.

1. *Myocardial Insufficiency in Relation to Surgery and Anesthesia*—R. K. Barry, M. D., First National Bank Building, San Diego.
2. *Report on De-Etherization Carbon Dioxide from St. Luke's Hospital, San Francisco* — Edgar I. Leavitt, M. D., St. Luke's Hospital, San Francisco; Elizabeth B. Christiansen, M. D., 2215 Buchanan Street, San Francisco.
3. *Blood Chemistry in Nephritis and Toxemias of Pregnancy* — Edward H. McLean, M. D., Oregon City, Oregon.
4. *Psychology in Anesthesia* — Harry R. Carson, M. D., Goodrich Building, Phoenix, Ariz.
5. *Basal Metabolism Studies in Fatigue States*—Ronald Cummings, M. D., Pacific Mutual Building, Los Angeles.

DERMATOLOGY AND SYPHILOLOGY SECTION

ANSTRUTHER DAVIDSON, M. D., Chairman,
419 South Alvarado Street, Los Angeles.

MOSES SCHOLTZ, M. D., Secretary,
Brockman Building, Los Angeles.

FIRST MEETING

Monday, May 12, 2 p. m.

1. Chairman's Address and Secretary's Report.
2. *Rice Workers' Dermatitis*—Harry E. Alderson, M. D., 240 Stockton Street, San Francisco; Aubrey Rawlins, Stanford Hospital, San Francisco.

   Description and prevalence. Industrial Accident Commission reports and experiences. Personal observations. Experimental work at Stanford. Conclusions.
3. *Carbohydrate Intolerance Associated with Eczemas*—Samuel Ayres, Jr., M. D., 2007 Orange Street, Los Angeles.

   (1) A preliminary report is presented dealing with the glucose tolerance reaction in a series of thirty-six consecutive cases of typical eczema. (2) The tests were made in two laboratories, each using the Folin-Wu colorimetric technic. (3) The fasting blood sugar values in these cases of eczema were not found to be abnormally high except in a few cases. (4) Very striking deviations from normal were found, however, at the one and two-hour periods following the administration of the test glucose solution. Of the thirty-six eczema cases, 33.3 per cent showed 200 mgs. or more of glucose per 100 cc. 2 of blood at the end of one hour in contrast with only 3.6 per cent of 300 normal controls; and 16.6 per cent of the eczema cases showed 200 mgs. or more at the end of two hours in contrast with only .3 per cent of 253 normal controls. (5) Of the thirty cases which were tested at the end of three hours, 40 per cent had not returned to a conservative estimate of normal (110 mgs.).
4. *Red Light in the Treatment of Dermatoses*—Harry P. Jacobson, M. D., Broadway Central Building, Los Angeles.
5. *The Relationship of Metabolic Toxins to Dermatoses*—Oscar Schroeter, M. D., Union Oil Building, Los Angeles.

Tuesday, May 13, 10 a. m.

Clinical Session at the Los Angeles General Hospital.

SECOND MEETING

Wednesday, May 14, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *Cancer of the Lip Treated by Radium*—Douglas W. Montgomery, M. D., 323 Geary Street, San Francisco; George D. Culver, M. D., 323 Geary Street, San Francisco.
3. *Ringworm of the Scalp*—Hiram E. Miller, M. D., 380 Post Street, San Francisco.
4. *Morphologic Instability of Cutaneous Lesions*—Moses Scholtz, M. D., Brockman Building, Los Angeles.

   Dynamics versus statics in dermatology. Static point of view prevailing in pathology and morphology. Static conception of clinical entity-unit of current dermatologic classification. Morphologic phenomena unexplainable under static point of view: 1. Borderline forms. 2. Polymorphism. 3. Combined lesions. 4. Freakish forms. 5. Morphologic metamorphosis. Dynamic conception of cutaneous reaction introduced by Brocq. Strong and weak features of Brocq's classification. Suggested modification of Brocq's ideas. Theoretical and practical advantages of the dynamic point of view.

EYE, EAR, NOSE, AND THROAT SECTION

HARVARD MCNAUGHT, M. D., Chairman,
Butler Building, San Francisco.

PERCIVAL DOLMAN, M. D., Secretary,
Flood Building, San Francisco.

FIRST MEETING

Monday, May 12, 2 p. m.

1. Chairman's Address: *Diagnosis and Treatment of Chronic Ethmoidal Conditions*—Harvard McNaught, M. D., Butler Building, San Francisco.
   Secretary's Report.
2. *Treatment of Lime Burn of the Eye*—Otto Barkan, M. D., 516 Sutter Street, San Francisco.
3. *Blood Staining of the Cornea*—Charles Maghy, M. D., 1136 W. Sixth Street, Los Angeles.
4. *Plastic Surgery of the Nose.* (Lantern slides)—George Warren Pierce, M. D., 870 Market Street, San Francisco.

SECOND MEETING

Tuesday, May 13, 10 a. m.

1. *Surgical Treatment of Acute and Chronic Conditions of the Antrum of Highmore*—Cullen F. Welty, M.D., 210 Post Street, San Francisco.
2. *The Present-Day Advance in Plastic Surgery With Special Reference to the Correction of Deformities of the Nose and About the Orbit*—J. Paul de River, M. D., United States Veterans' Bureau, San Francisco.
3. *The Importance of Accuracy in Refraction Work*—M. Morgan Cloud, M. D., Baker-Detwiler Building, Los Angeles.
4. *Allergies in Relation to Rhino-Laryngology*—George Piness, M. D., Medical Office Building, Los Angeles.

THIRD MEETING

Wednesday May 14, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *Testing the Cochlea Directly—With Presentation of the New Instrument for Testing Hearing*—Isaac H. Jones, M. D., 448 Arden Boulevard, Los Angeles.
3. *A New Method of Treatment for Chronic Laryngeal Stenosis*—Edward Cecil Sewall, M. D., 3515 Pacific Avenue, San Francisco.
4. *Foreign Bodies in Respiratory and Upper Digestive Tracts* (Lantern Slides)—Simon H. Jesberg, M. D., 1151 W. Sixth Street, Los Angeles.
5. *Removal of Tonsils by Electro-Coagulation*—Albert C. Carlton, M. D., 117 Post Street, San Francisco.

GENERAL MEDICINE SECTION

A. S. GRANGER, M. D., Chairman,
2007 Orange Street, Los Angeles.

ERNEST S. DU BRAY, M. D., Secretary,
Flood Building, San Francisco.

FIRST MEETING

Tuesday, May 13, 10 a. m.

1. Chairman's Address and Secretary's Report.
2. *Disturbed Metabolism as a Background for Disease*—Lovell Langstroth, M. D., 240 Stockton Street, San Francisco.

   The relation of heredity, feeding, exercise, rest, and sun exposure to metabolic processes and the health of the individual. A broader conception of metabolism. Degenerative disease or infection as expressions of its disturbance.
3. *The Present Status of the Treatment of Diabetes with Insulin*—W. D. Sansum, M. D., Third Avenue and Bath Street, Santa Barbara; N. R. Blatherwick, Ph. D., Third Avenue and Bath Street, Santa Barbara.

   A. A brief summary of the methods used and the results obtained in a group of extremely severe patients who have had insulin for one year or longer. B. The glucose equivalent of the insulin rabbit unit. C. A review of our attempts at mouth medication, together with the results obtained.

4. *Symptoms Associated with the Use of Insulin in Diabetes*—Bertnard Smith, M. D., 1032 West Eighteenth Street, Los Angeles.

   1. Symptoms of insulin overdosage. 2. Symptoms appearing after periods of insulin therapy. Analysis of these complex symptoms. Comparison of these complex symptoms with those of insulin overdosage. 3. Laboratory studies of selected cases that show these complex symptoms.

5. *The Frequency of Endogenous Endocrine Obesity and Its Treatment by Organotherapy* (Illustrated by lantern slides)—H. Lisser, M. D., 240 Stockton Street, San Francisco.

   It is generally thought that the vast majority of obese persons eat voraciously and exercise insufficiently, and that this obesity is exogenous. This view is probably exaggerated. Many fat people eat moderately, or even meagerly, and are normally active. Many thin individuals consume large quantities of food, and are not athletic. Slides will be shown of various types of endocrine obesity in children and adults; hypophyseal and gonadal; the hypophyseal predominate. The value of basal metabolism estimations is discussed. These patients are difficult to reduce by diet and exercise alone; reasons given; organotherapy is indicated and usually efficacious. It is not harmful, if properly controlled. Examples given.

SECOND MEETING

Wednesday, May 14, 2 p. m.

1. *Treatment of Intestinal Protozoan Infections with Mercurochrome 220* — George A. Gray, M. D., Twohy Building, San Jose.

   Being a report on the treatment of twenty cases of infestation with Giardia enterica, Chilomastix, Councilmania and Endamoeba dysenteriae by means of Mercurochrome 220, administered by mouth. Stools have remained negative for as long as two to six months after treatment. All stool analyses were made by the State Hygienic Laboratory at Berkeley.

2. *The Clinical Data Obtained from the Study of a Series of Cases of Pernicious Anemia* — Edwin L. Bruck, M. D., 240 Stockton Street, San Francisco.

   Introduction with historical data. The presence of certain constant findings in the histories and in the examination of these patients. Attempts to explain these findings by clinico-pathological and autopsy data. The futile search for definite etiology. The course of the disease. The aim of therapy. The influence of therapy. Conclusions.

3. *The Treatment of Post-Influenzal Asthma*—Samuel H. Hurwitz, M. D., 516 Sutter Street, San Francisco.

   As an aftermath of the waves of influenza, which began with the great pandemic of 1918, there are now a large number of patients who are suffering from some of its sequelae. Of these we have found asthmatic bronchitis to be an extremely important sequel and one not sufficiently emphasized. During the routine treatment of over several hundred asthmatics during the past five years we became impressed with the observation that, of those instances of bacterial asthma which we were called upon to treat, two groups of cases responded better than the others. Those were the children whose asthmatic bronchitis followed upon some acute respiratory infection such as whooping cough, broncho-pneumonia, grippe, a neglected bronchitis or a tonsillitis, and secondly, those adults and children whose asthmatic paroxysms were definitely the outcome of an attack of influenza of varying severity. The role of infection and the treatment of bacterial asthma in childhood has been presented in a former communication. In this paper we wish to emphasize the value of properly prepared and careful administered autogenous vaccines in the post-influential group, and to call attention to the end-results obtained by this mode of therapy.

4. *Baumgarten's Disease*—V. R. Mason, M. D., 919 Pacific Mutual Building, Los Angeles.

   (1) Report of cases which have been classified under the term "Von Baumgarten's disease." (2) Discussion of their relationship to the umbilical vein, as well as their relationship to ordinary cirrhosis of the liver. (3) Venous hums in the episgastrium which may accompany diseased conditions.

5. *Report of 300 Cases of Pulmonary Tuberculosis Treated with Partial Antigens (Much-Deycke) During the Last Three Years.* (Lantern Slides)—Max Rothschild, M. D., 350 Post Street, San Francisco.

   Differentiation of partial antigens and tuberculins. Indication for treatment with partial antigens based on prevailing pathological condition and how determined.

THIRD MEETING

Thursday, May 15, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.

2. *Vincent's Disease and Parasyphilis* — F. F. Gundrum, M. D., Capital National Bank Building, Sacramento.

   An acute contagious disease due to a specific cause. Generally local, but also producing septicemia. Widely disseminated throughout the world. Common sites of infection. Evidences of invasion. A fatal case. Skin rashes. Parasyphilis of Stern.

3. *The Treatment of Chronic Arthritis* — Leonard W. Ely, M. D., Lane Hospital, San Francisco.

   In order to treat successfully the diseases of any organ, an idea at least of their pathology is necessary. Inflammation in the joints forms no exception to this rule. Its treatment is comparatively simple in most instances. Sketch of the various forms of arthritis, and the treatment of each.

4. *Changes in Heart Area as the Result of Decompensation and Compensation — With Report of Twenty Cases* — Donald Jackson Frick, M. D., 1136 West Sixth Street, Los Angeles.

   This report was prompted by lack of accurate data on changes of heart outline. Brief review of method of obtaining cardiac areas by use of orthodiagrams. Discussion of findings in twenty cases of decompensation. Tables showing lesions, etiologic factors, electrocardiographic findings and heart areas. Brief review of four of the more interesting cases, with lantern slides demonstrating change in cardiac outline. Conclusions.

5. *Coronary Obstruction* — James F. Churchill, M. D., Timken Building, San Diego.

   Acute coronary obstruction one of the grave cardiac accidents, though not necessarily fatal. Anatomy of the coronary vessels. Discussions of variations in the clinical picture. Report of cases. Remarks on a differential diagnosis, prognosis and treatment.

6. *Heart Pain*—Thomas H. Kelly, M. D., 240 Stockton Street, San Francisco.

   The origin of heart pain is an exhausted heart muscle. Its location, character and occurrence are variable. Its occurrence is brought about usually through heart strain, and the factors influencing its origin and occurrence are discussed. The prognosis must be guarded, and treatment is directed toward providing all possible cardiac rest compatible with an endurable existence. Examples are cited showing varieties of causes at work, and the results of treatment.

GENERAL SURGERY SECTION

Rea Smith, M. D., Chairman,
Medical Office Building, Los Angeles.

Leo Eloesser, M. D., Secretary,
Butler Building, San Francisco.

FIRST MEETING

Monday, May 12, 2 p. m.

1. Chairman's Address and Secretary's Report.
2. *Cautery Knife Excision of the Malignant Uterus. (Technique and Results)* — James F. Percy, M. D., 1030 South Alvarado Street, Los Angeles.
   This paper urges the substitution of the cautery knife for the usual sharp dissection in the removal of the uterus and adnexa. The former neither encourages the dissemination of the disease into uninvaded areas nor stimulates it into new virulence.
3. *Doubtful Tumors: Shall We Cut Out a Piece for Diagnosis?*—A. R. Kilgore, M. D., 391 Sutter Street, San Francisco.
   (1) In experimental animals—influence of trauma and of surgical section on metastasis of tumors. (2) Clinical evidence. (a) Necessity of particularizing with reference to organ or tissue from which tumor arises. (b) Effect on statistics of cures of failure to recognize different degrees of malignancy in tumors arising from the same tissue. (3) Safe procedures in cancers of: (a) Lip; (b) Mouth; (c) Skin; (d) Breast; (e) Cervix; (f) Fundus of uterus.
4. *Some Unusual Bone Cases* (With Lantern Slides)— W. W. Richardson, M. D., Brockman Building, Los Angeles.
   Acute non-suppurative osteomyelitis with sequestration. Report of two cases, onset, course, X-ray appearance as in the ordinary suppurative type.
5. *Factors Influencing Morbidity and Mortality of Exophthalmic Goiter* — John Hunt Shephard, M. D., Growers' Bank Building, San Jose.
   (1) Present statistics: Types and severity of thyroid intoxication not segregated in present statistics. (2) Early diagnosis: Diagnosis possible before classical text-book picture develops. (3) Pre-operative care: Evaluation of patient's cardiac and nervous reserve. Establishment of water balance; use of iodine. (4) Operative Procedure: Selection of cases for multiple-stage operation. (5) Post-operative care: Cure not immediate. Supervision of post-operative life.
6. *Importance of Differential Leucocyte Count in Inflammatory Conditions* — Newton Evans, M. D., Loma Linda; Phillips J. Tunnell, M. D., Loma Linda.
   Meaning of increase of leucocytes—indicator of degree of reaction against infection. Increase of polymorphonuclears—indicator of severity of infection. Differential count of greater importance than total count. Danger of misinterpreting absence of leucocytosis in severe infections. Relation of polynucleosis to suppuration. Report of cases. Walker's Index of Resistance. Exceptions.

SECOND MEETING

Tuesday, May 13, 2 p. m.

Symposium on Chronic Gall-bladder Disease

1. *Treatment of Chronic Cholecystitis* — W. W. Boardman, M. D., 350 Post Street, San Francisco; G. D. Schoonmaker, M. D., 350 Post Street, San Francisco.
   Frequency of the occurrence; often unrecognized as the cause of chronic gastro-intestinal; nervous and other symptoms. General confusion regarding the methods of treatment; prophylactic measures; diet; drugs; Lyon Meltzer method, with results in a series of cases. What cases are surgical?
2. *Conservative Treatment of Gall-bladder Conditions*— H. P. Hill, M. D., 177 Post Street, San Francisco; R. V. Lee, M. D., 177 Post Street, San Francisco.
3. *Obstruction of the Cystic Duct and Its Surgical Consequences* (Lantern Slides) — A. S. Lobingier, M. D., Merritt Building, Los Angeles.
4. *Surgical Aspects of Gall-bladder Diseases*—Guy Cochran, M. D., Pacific Electric Building, Los Angeles.
5. *Gall-bladder Diseases from a Surgical Standpoint*— J. J. Van Kaathoven, M. D., 1136 West Sixth Street, Los Angeles.
   Discussion opened by Rea Smith, M. D., Medical Office Building, Los Angeles; A. W. Lobingier, M. D., Merritt Building, Los Angeles.
6. *Acute Pancreatisis* (With Report of Four Cases) — C. G. Toland, M. D., Pacific Mutual Building, Los Angeles.
   A brief description of acute pancreatitis and its characteristic differentiating symptoms, followed by a report of four cases.

THIRD MEETING

Wednesday, May 14, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *Unusual Conditions in the Duodenum and Their Significance*—Gunther W. Nagel, M. D., Mayo Clinic, Rochester, Minn.
   Congenital stenosis in adult, with case history. Duodenal diverticula (acquired). Carcinoma of duodenum: diffculty of diagnosis, and poor prognosis.
3. *Esophageal Diverticula.* (Lantern Slides) — E. C. Moore, M. D., Merchants National Bank Building, Los Angeles.
   Anatomy of the esophagus. Etiology: Inflammatory lesion. Congenital nature. Symptoms: Signs of throat irritation. Difficult swallowing. Changes in physical condition. Diagnosis: Characteristic history. X-ray findings. Esophagoscopy. Classifications: Pulsion. Traction. Severity, depending on size and location. Treatment. Traction: Medical treatment. Pulsion: Surgery, types of operation, after care. Case histories. Illustrated by slides.
4. *Diverticulitis of the Large Intestine*—Maurice Kahn, M. D., Brockman Building, Los Angeles.
5. *Surgical Treatment of the Diseases of the Colon*— Charles E. Phillips, M. D., Pacific Mutual Building, Los Angeles.
   Rest and cleanliness are the first essentials to insure success in the treatment of diseases of the colon. A simple cecostomy at the margin of the ileo-cecal valve completely sidetracks the large bowel as the valve presents through the wound. The operation, care, and closure of the same is a simple matter.
6. *Cancer of the Rectum*—M. S. Woolf, M. D., 240 Stockton Street, San Francisco.
   Stagnation of bowel contents as a factor in intestinal cancer. Analysis of cases of cancer of the rectum in the University of California Hospital according to age, signs, and symptoms. Significance of pain, constipation, and bleeding in diagnosis. Duration and position of the growth. Mode of spread. Earliest appreciable warning of the disease. Treatment.

INDUSTRIAL MEDICINE AND SURGERY SECTION

Ross W. Harbaugh, M. D., Chairman,
350 Post Street, San Francisco.

W. C. Adams, M. D., Secretary,
Medical Arts Building, Oakland.

FIRST MEETING

Monday, May 12, 8 p. m.

1. Chairman's Address and Secretary's Report.
2. *Lengthening the Quadriceps Tendon for Stiff Knee*— George J. McChesney, M. D., 870 Market Street, San Francisco.
3. *Fracture of the Surgical Neck of the Humerus* (Lantern Slide Demonstrations)—Emmet Rixford, M. D., 1795 California Street, San Francisco.
4. *Previous Pathology Modifying Results in Industrial Skeletal Injuries* — S. J. Hunkin, M. D., 1155 Bush Street, San Francisco.

SECOND MEETING

Tuesday, May 13, 10 a. m.

Open Meeting for the consideration and discussion of industrial medicine questions.

THIRD MEETING

Thursday, May 15, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *Relation of Head and Back Trauma to Traumatic Neurosis* — Gilbert M. Barrett, M. D., 2740 Lake Street, San Francisco.
3. *The Industrial Aspects of Abdominal Conditions*—Edwin I. Bartlett, M. D., 240 Stockton Street, San Francisco.
4. *When Is a Hernia?*—Phillip H. Stephens, M. D., Pacific Electric Building, Los Angeles.

NEUROPSYCHIATRY SECTION

C. L. Tranter, M. D., Chairman,
209 Post Street, San Francisco.

Glenn E. Myers, M. D., Secretary,
Marsh-Strong Building, Los Angeles.

FIRST MEETING

Monday, May 12, 2 p. m.

Symposium on Child Guidance

1. *Reasons for Child Guidance Clinics* — Robert Lewis Richards, M. D., 240 Stockton Street, San Francisco.
   (1) Lessons learned from many surveys in many places. (2) Modifiable elements in the personality problems. (3) Stages and stresses in mental growth and lessons therefrom. (4) Is a Child Guidance Clinic a duplication of existing work? What are its relation to other medical sociological or educational work in general.
2. *Mental Health of Children—A National Asset*—V. V. Anderson, M. D., Director Division of Prevention of Delinquency of the National Committee for Mental Hygiene, New York City.
3. *The Habit Clinic for Pre-School Children* — Sydney Kinnear Smith, M. D., Medical Building, Oakland.
   (1) A brief review of the development of mental hygiene as applied to the problems of childhood. The appearance of the habit clinic idea in this country, with special reference to the recent work in the State of Massachusetts. (2) A general survey of the scope of a habit clinic with resumé of typical cases, leading to a discussion of the role of faulty habits in childhood as in influencing adult adaption and mental health. (3) The organization and technique of a habit clinic, and a description of methods of re-education employed.
4. *Adult Delinquency: Its Prevention by Mental Hygiene in Childhood*—Joseph Catton, M. D., 209 Post Street, San Francisco.
   Consideration of cases. The role of childhood mental hygiene in (a) dealing with hereditary factors, (b) prevention of disease and accident or caring for them when they occur, and (c) guidance of intellectual, emotional, moral, religious and social development—all these toward the prevention of later criminality or other evidence of maladjustment.
5. *The Problem Case*—Richard W. Harvey, M. D., 380 Post Street, San Francisco.
   Definition of the term. Causative factors in the development of problem cases. Relation of problem cases to vocational training. Social aspects of problem cases. Results attained in rehabilitating veterans. Results attained in handling private cases. Relation of clinics and training centers to problem cases.
6. *Experience in Los Angeles in Child Guidance Work*—Aaron J. Rosanoff, M. D., 2007 Orange Street, Los Angeles.
   Negotiations with the National Committee for Mental Hygiene to secure for one year a demonstration Child Guidance Clinic for Los Angeles. Requirements of the National Committee. Creation of the Menal Hygiene Organization of Los Angeles County. Plans for meeting the requirements of the National Committee. Clinic staff. Volunteer staff. Co-operation of social agencies. Type of cases selected. Clinic procedure. Co-operation of social agencies. First three months' work of the Child Guidance Clinic.
   Discussion on all of the above papers opened by Ray Lyman Wilbur, M. D., Stanford University, Palo Alto; William Palmer Lucas, M. D., University California Hospital, San Francisco; Robert Langley Porter, M. D., 380 Post Street, San Francisco.

SECOND MEETING

Tuesday, May 13, 2 p. m.

1. Chairman's Address: *The Surgery of the Sympathetic System*—Charles L. Tranter, M. D., 209 Post Street, San Francisco.

   Secretary's Report.

2. *Osteomyelitis of the Skull* — Howard W. Fleming, M. D., 291 Geary Street, San Francisco.
   Brief review of the literature and reported cases. Summary and outline of cases under personal observation. Etiological factors. Symptomatology and clinical course. Complications. Treatment. Prognosis. Conclusions.
   Discussion opened by Edward B. Towne, M. D., Stanford University Hospital, San Francisco; Carl W. Rand, M. D., 870 Market Street, San Francisco.
3. *The Value of Cerebral Pneumograms in the Localization of Tumors of the Brain* — Edward B. Towne, M. D., Stanford University Hospital, San Francisco.
   A certain proportion of tumors of the brain cannot be definitely localized, especially those lying in the frontal and temporal lobes. Palliative decompression may stop headaches and save vision, but frequently allows a benign tumor to grow beyond the operative stage. Roentgenograms of air-filled ventricles show a deformity caused by encroachment of the tumor; thus allowing exposure of operable tumors, and preventing useless extensive expirations for inoperable tumors. Case reports and lantern-slide demonstration.
   Discussion opened by Thomas G. Inman, M. D., 870 Market Street, San Francisco; Carl W. Rand, M. D., 870 Market Street, San Francisco; Howard C. Naffziger, M. D., 291 Geary Street, San Francisco.
4. *The Cerebral Subarachnoid Space and Its Importance in Surgery and Medicine*—Charles E. Locke Jr., M. D., University California Hospital, San Francisco; Howard C. Naffziger, M. D., 291 Geary Street, San Francisco.
   The arachnoid membrane in neurosurgical problems is as important as is the peritoneum in abdominal surgical conditions. It is not only concerned with both acute and chronic infections, but from it also certain tumors take their origin. We are fortunate in that the fluid contained in the subarachnoid space, that is, the cerebrospinal fluid, is easily available for study, thus shedding light indirectly upon the condition of the arachnoid membrane. Because little has been written concerning the arachnoid membrane and the subarachnoid space, very few of us have an accurate conception as to its extent. In hopes of clarifying this obscure conception, we have made celloidin casts of the cerebral subarachnoid spaces and ventricles, photographs and drawings of which will be thrown upon the screen. A thorough knowledge of the subarachnoid space is of utmost importance in the localization of an extraventricular obstruction in hydrocephalus. It is also of importance in the understanding of clinical signs associated with acute and chronic forms of meningitis. Never, however, has our ignorance of the subarachnoid space been more in evidence than when we commenced two or three years ago to at-

tempt interpretations of cerebrograms and ventriculograms.

Discussion opened by Milton B. Lennon, M. D., 380 Post Street, San Francisco; Carl W. Rand, M. D., 870 Market Street, San Francisco; Edward B. Towne, M. D., Stanford University Hospital, San Francisco.

5. *Complications Following Brain Injuries* — Carl W. Rand, M. D., 870 Market Street, San Francisco.

Cases of skull fracture associated with intracranial hemorrhage, hemiplegia, hemianopsia, aphasia, brain abscess, meningitis, or epilepsy. Lantern slides.

Discussion opened by Edward B. Towne, M. D., Stanford University Hospital, San Francisco; Howard C. Naffziger, M. D., 291 Geary Street, San Francisco; Samuel D. Ingham, M. D., 1920 Orange Street, Los Angeles.

6. *Further Points in the Physiology of Brain Surgery*— Cecil E. Reynolds, M. D., 1965 Cheremoya Avenue, Hollywood.

(1) Various methods of approach to the cranial contents. (2) Physiologically necessary exceptions to mechanical ideals. (3) Effects of negative pressure. (4) Examples in cases of extradural hemorrhage, subarachnoid hemorrhage and arachnoid cysts. (5) Essential difference in the symptoms and results of extradural and intradural hemorrhage. Differential diagnosis and complications in each case. (6) Effect of combined dural adhesions and brain shrinkage in old age. (7) Comparison of the wet and dry operations upon the brain and cord. Explanation of the Victor Horsley technique.

THIRD MEETING

Wednesday, May 14, 2 p. m.

1. *Serous Meningitis and Arachnitis* — Edward W. Twitchell, M. D., 909 Hyde Street, San Francisco.

Early work of Quincke. Case reports of Placzek, Oppenheim, Unger, Spiller, and others. Recent work of Claude. Conception of pathology and pathegenesis. Personal observations of cases of meningismus relieved by spinal drainage. Report of case of arachnitis circumscripta relieved by operation.

Discussion opened by Thomas G. Inman, M. D., 870 Market Street, San Francisco; Howard W. Fleming, M. D., 291 Geary Street, San Francisco.

2. *Radiographs of the Head in Childhood from the Clinical Standpoint*—Henry Douglas Eaton, M. D., 1136 West Sixth Street, Los Angeles.

A study of 250 radiographs of the head in children, with an attempt to correlate the X-ray findings with the clinical picture.

Discussion opened by Rolla G. Karshner, M. D., 1136 West Sixth Street, Los Angeles.

3. *The Progression Reflex: Its Manifestation and Value in Diseases of the Central Nervous System*—Isadore Leon Meyers, M. D., Brockman Bldg., Los Angeles.

The Flexion Reflex of the Spinal Animal. The Reflex of Defense. Reflex "Stepping." The Flexion Reflex in Man. The Progression Reflex as observed by the author. Its Relationship to the Babinski Toe Response. Its Diagnostic Value.

The Reflex Nervous Disorders as Described by Babinski—A. R. Timme, M. D., Brockman Building, Los Angeles.

(1) History: First described by Hunter, Charcot, and Vulpian. Confused with muscular atrophy, secondary to arthritic conditions. (2) Speculations as to Pathogenesis. (3) Symptomatology: Contractures and paralyses. Vasomotor changes. Changes in muscular excitability. Changes in electrical excitability. Changes in tonus. Changes in reflexes. Changes in sensation. (4) Differential diagnosis. (5) Prognosis and treatment. (6) Presentation of case.

Discussion opened by S. D. Ingham, M. D., 1920 Orange Street, Los Angeles.

5. *Consideration of Progressive Muscular Dystrophy with Pseudo-hypertrophy from an Endocrine Standpoint.* (Illustrated by short motion picture and lantern slides) — Clifford A. Wright, M. D., Auditorium Building, Los Angeles.

Introductory discussion; classification of cases; hereditary and familial tendencies; usual progress of disease; general symtomatology; endocrine symptoms; X-ray findings; case histories; endocrine treatment; orthopedic treatment; results in cases treated.

6. *Observations on the Treatment of Lethargic Encephalitis*—Julian M. Wolfsohn, M. D., 177 Post Street, San Francisco.

Report based on seventy cases treated by various methods. 1. Definition. 2. Anatomical classification, while inadequate, gives a working basis for diagnosis and treatment. 3. Clinical types of cases treated, with examples. 4. Treatment: (1) Internal medicaments; (2) Hypodermic medicaments; (3) Serum treatment; (4) Intraspinal autoserotherapy; (5) Combined serum and intraspinal autoserotherapy. 5. Conclusions.

Discussion opened by Ross Moore, M. D., 520 West Seventh Street, Los Angeles; Albert H. Rowe, M. D., 119 Thirteenth Street, Oakland.

FOURTH MEETING

Thursday, May 15, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.

2. *The Inferiority Complex and Its Psychiatric Significance*—Harold W. Wright M. D., 870 Market Street, San Francisco.

This complex considered as always acquired, even when associated with a constitutional inferiority. The far-reaching and lasting effects of childhood impressions obtained from the psychological environment are the real causes of this complex. Therefore, it is a preventable disorder. Its effects are of great importance in respect to the developments of psychoneuroses and psychoses, inefficiency, and friction, maladjustment and failure in the social, industrial, and spiritual life. Some of the psychoses are considered as symptomatic expressions of this complex which has been for years causing a psychoneurosis. Even in psychoses of toxic and organic causation, the symptomatology is dependent in part upon the previous psychological make-up and colored thereby. The importance of psychiatric knowledge and methods of approach in relation to preventive pediatrics.

Discussion opened by A. J. Rosanoff, M. D., 2007 Orange Street, Los Angeles; V. H. Podstata, M. D., Livermore; Ross Moore, M. D., 520 West Seventh Street, Los Angeles.

3. *The Psycho-neuroses: Psychastenia, Neurasthenia, Hysteria, Ambulatory Automatism, with Special Reference to a Certain Method of Treatment*—Thomas J. Orbison, M. D., 2007 Orange Street, Los Angeles.

My paper will be based upon 300 cases that have been under my personal observation and of which I have case histories. The method of treatment, which I shall discuss, I have called the "Training Camp Method."

Discussion opened by Henry D. Eaton, M. D., 1136 West Sixth Street, Los Angeles; V. H. Podstata, M. D., Livermore.

4. *Affectivity: Its Importance in Practical Medicine* — Charles Louis Allen, M. D., Los Angeles Railway Building, Los Angeles.

Definition of affectivity. Psycho-physiology. Its influence in disease processes and on symptoms both mental and physical. Evaluation of this factor and the diagnostic, prognostic and therapeutic indications which may be drawn from so doing.

Discussion opened by Edward A. Franklin, M. D., Bank of Italy Building, Los Angeles.

5. *Treatment of Morbid Fear*—Samuel D. Ingham, M.D., 1920 Orange Street, Los Angeles.

Introduction: Covering a general discussion of the problems relating to the disturbances of fear instinct and the consideration of the position occupied by fear in neuro-biology. (1) Morbid fears and the

mechanism of their production. (2) The differentiation of morbid fears as compared to normal fears. (3) The biologic value of the fear instinct, and the destructive effect of excessive fear reactions. (4) The character of morbid fears compared to tissue allergies; sensitization and desensitization. (5) The treatment of morbid fears: Analysis of individual case. Educating the patient. Desensitization.

Discussion opened by Nathaniel H. Brush, M. D., San Marcos Building, Santa Barbara; Robert Lewis Richards, M. D., 240 Stockton Street, San Francisco.

6. *Some Fears of Endocrine Origin* — Edward Huntington Williams, M. D., Pacific Mutual Building, Los Angeles.

General discussion of the subject, with some practical illustrations. Suggestions for treatment.

Discussion opened by Ernest B. Hoag, M. D., 325 Oak Lawn, Pasadena; George G. Hunter, M. D., Pacific Mutual Building, Los Angeles.

7. *The Practitioner and the Diagnosis of General Paresis* —Nathaniel H. Brush, M. D., San Marcos Building, Santa Barbara.

General paresis can simulate any known mental disorder. The earliest symptoms of paresis may be entirely somatic, and the patient's first complaint may have no reference to the central nervous system. The text-books give excellent descriptions of the standard paretic, but it is the paretic who is not standardized that causes the difficulty. Not all paretics show Argyll-Robertson pupils, the reflexes are often exaggerated in the various neuroses, and often all that the patient shows is the so-called neurasthenic reaction. The practitioner should be on his guard in the presence of any slight physical abnormalities coupled with the history of a slight memory failure, and a mental and moral delapidation. He should search further for other difficulties, and above all a thorough serological examination is indicated.

Discussion opened by S. D. Ingham, M. D., 1920 Orange Street, Los Angeles; V. H. Podstata, M. D., Livermore.

OBSTETRICS AND GYNECOLOGY SECTION

A. B. Spalding, M. D., Chairman,
Stanford University Hospital, San Francisco.

Peter O. Sundin, M. D., Secretary,
H. W. Hellman Building, Los Angeles.

FIRST MEETING

Monday, May 12, 2 p. m.

Symposium on Carcinoma of the Uterus

1. Chairman's Address: *Mortality Rates of Carcinoma of the Uterus in California* — A. B. Spalding, M. D., Stanford University Hospital, San Francisco.

Secretary's Report.

2. *Recent Advances in Cancer Research* — Ludwig A. Emge, M. D., Stanford University Hospital, San Francisco.

In this review it is attempted to correlate in a concise and comprehensive form, the various lines of cancer research, including the questions on inheritability, irritability, serum diagnosis, and treatments not radiological in nature.

3. *The Prevention of Carcinoma of the Uterus*—Roland E. Skeel, M. D., Westlake Professional Building, Los Angeles.

Discussion opened by Frank R. Girard, M. D., 870 Market Street, San Francisco.

4. *Treatment of Early Carcinoma of the Uterus*—John W. Sherrick, M. D., 350 Twenty-ninth Street, Oakland.

Discussion opened by William H. Gilbert, M. D., Brockman Building, Los Angeles.

5. *Treatment of Inoperable Carcinoma of the Uterus*—Albert Soiland, M. D., 1407 South Hope Street, Los Angeles.

Reviews briefly history of radiation treatment alone, and in conjunction with surgery in uterine cancer. Discusses problems connected with the work. Ventures the opinion that, with modern refinement of treatment technique compatible with observed immediate effects, radiation offers perhaps better curative figures than those named by conservative surgeons.

Discussion opened by A. J. Lartigau, M. D., 391 Sutter Street, San Francisco.

SECOND MEETING

Wednesday, May 14, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.

Symposium on Caesarean Section

2. *Are the Present Indications for Caesarean Section Justifiable?*—Lyle McNeile, M. D., Pacific Mutual Building, Los Angeles.

Discussion opened by H. A. Stephenson, M. D., 516 Sutter Street, San Francisco.

3. *Caesarean Section for Haemorrhages*—Reginald Knight Smith, M. D., 391 Sutter Street, San Francisco.

Discussion opened by Karl Schaupp, M. D., 516 Sutter Street, San Francisco.

4. *Caesarean Section for Toxemia of Pregnancy*—E. M. Lazard, M. D., 2007 Orange Street, Los Angeles.

Toxemias of pregnancy essentially medical complication. Two general clinical classes of toxemias: first, those not improving or getting progressively worse under treatment; second, those which come under observation, profoundly toxic or eclamptic. Interruption of pregnancy indicated in those cases not improved or getting progressively worse under treatment. Method of termination of pregnancy dependent on obstetric conditions present. Caesarean section indicated when advisable to terminate pregnancy in primiparae with rigid cervices undilated os, where pelvic measurements are small. Rational treatment of toxemias, medical; with surgical termination of pregnancy or labor, a necessary help in a limited class of cases.

Discussion opened by Adelaide Brown, M. D., 909 Hyde Street, San Francisco.

5. *Caesarean Section for Pelvic Obstruction* — Alice F. Maxwell, M. D., 1701 Bush Street, San Francisco; Frank Lynch, M. D., University of California Hospital, San Francisco.

Discussion opened by Titian Coffey, M. D., 1136 West Sixth Street, Los Angeles.

ORTHOPEDIC SURGERY SECTION

H. H. Markel, M. D., Chairman,
380 Post Street, San Francisco.

John C. Wilson, M. D., Secretary,
Medical Office Building, Los Angeles.

FIRST MEETING

Monday, May 12, 8 p. m.

1. Chairman's Address and Secretary's Report.

Symposium on Chronic Back Pain

2. *The Neurological Aspect of Low-back and Sciatic Pain* —Milton Lennon, M. D., 380 Post Street, San Francisco.
3. *Gynecological Conditions as a Cause of Backache and Sciatica*—Frank W. Lynch, M. D., University California Hospital, San Francisco.
4. *The Prostate and Its Influence on Low-back Pain*— L. P. Player, M. D., 516 Sutter Street, San Francisco.
5. *Focal Infection as Related to Chronic Back Pain*— Herold P. Hare, M. D., Westlake Professional Building, Los Angeles.
6. *Anomalies and Abnormalities of the Lumbo-Sacral Spine as Etiological Factors in Chronic Back Pain.* (Lantern slides) — William B. Bowman, M. D., Brockman Building, Los Angeles.
7. *Chronic Back Pain from a Mechanical Viewpoint*— John Dunlop, M. D., Pacific Mutual Building, Los Angeles.

Discussion opened by Walter I. Baldwin, M. D., 380 Post Street, San Francisco; C. L. Lowman, M. D., Brockman Building, Los Angeles.

SECOND MEETING

Tuesday, May 13, 2 p. m.

1. *Treatment of the Helpless Arthritic Patient* — Harry Leslie Langnecker, M. D., Stanford University Hospital, San Francisco.
   Discussion opened by C. L. Lowman, M. D., Brockman Building, Los Angeles.
2. *Early Rachitic Changes in the Femur and Tibia*—H. W. Chappel, M. D., 134 South Morton Avenue, Los Angeles.
   Discussion opened by George J. McChesney, M.D., 380 Post Street, San Francisco.
3. *The Treatment of Hip Flexion Contracture of the Hip* —Steele F. Stewart, M. D., Union Bank Building, Los Angeles.
   Discussion opened by Lionel D. Prince, M. D., 870 Market Street, San Francisco.
4. *Arthroplasty of the Elbow* (lantern slides)—William R. MacAusland, M. D., 240 Newbury Street, Boston Mass.
   Discussion opened by Walter I. Baldwin, M. D., 380 Post Street, San Francisco; C. L. Lowman, M. D., Brockman Building, Los Angeles.
5. *Metatarso-Phalangeal Osteochondritis* (Koehler's disease) — A. Gottlieb, M. D., Consolidated Realty Building, Los Angeles.
   Discussion opened by Edward C. Bull, M. D., 291 Geary Street, San Francisco.
6. *Delayed Ossification of the Tarsus in Congenital Clubfeet* (lantern slides)—Edward N. Reed, M. D., 824 Eighth Street, Los Angeles.
   Discussion opened by Trusten M. Hart, M. D., Brockman Building, Los Angeles.

THIRD MEETING

Thursday, May 15, 2. p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *The Operative Treatment of Abnormalities of the Fifth Lumbar Vertebra* (lantern slides) — Alfred E. Gallant, M. D., Van Nuys Building, Los Angeles; Walter C. Koebig, M. D., Story Building, Los Angeles.
3. *Traumatic Fractures of the Articular Processes of the Fifth Lumbar Vertebra*—Thomas A. Stoddard, M.D., 291 Geary Street, San Francisco.
4. *Ambulatory Cases of Fractures of the Spine* — H. W. Spiers, M. D., 2007 Orange Street, Los Angeles.
   Discussion opened by W. W. Richardson, M. D., Brockman Building, Los Angeles; E. W. Cleary, M. D., 177 Post Street, San Francisco.
5. *The Correction of Flexion and Abduction Deformity of the Lower Extremities Resulting from Infantile Cerebral Palsy* (moving pictures) — Richard H. Pyles, M. D., 2417 South Hope Street, Los Angeles.
   Discussion opened by Harry Schott, M. D., Brockman Building, Los Angeles.

PATHOLOGY AND BACTERIOLOGY SECTION

GLANVILLE Y. RUSK, M. D., Chairman,
University of California Hospital, San Francisco.

ROY W. HAMMACK, M. D., Secretary,
Pacific Mutual Building, Los Angeles.

FIRST MEETING

Monday, May 12, 2 p. m.

1. Chairman's Address and Secretary's Report.
2. *Clinical and Pathological Studies of Coronary Sclerosis and Myocardial Degenerations* — William J. Kerr, M. D., University California Hospital, San Francisco.
3. *Werdig-Hoffman Progressive Muscular Atrophy*—C. E. Nixon, M. D., 870 Market Street, San Francisco.
4. *The Status of the Clinical Pathologist*—Robert A. Kilduffe, M. D., Hollingsworth Building, Los Angeles.
5. *A Plea for a Standardized Technique for the Wassermann Test*—E. H. Ruediger, M. D., Angeles Hospital, Los Angeles.
6. *Results of Treatment of Cerebro-spinal Lues by the Mehrtens Method*—H. R. Oliver, M. D., 870 Market Street, San Francisco.

SECOND MEETING

Tuesday, May 13, 2 p. m.

1. *Lymphosarcoma.* Presentation of a Case—H. S. Wisman, M. D., University California Hospital, San Francisco; W. D. Faulkner, M. D., University California Hospital, San Francisco.
2. *A Study of Primary Carcinoma of the Lungs*—Victor S. Randolph, M. D., San Francisco Hospital, San Francisco.
3. *Chronic Granuloma of Unknown Etiology Developing Endothelioma*—Harold Brunn, M. D., 350 Post Street, San Francisco.
4. *Adenomyomata of the Uterosacral Region* — J. Craig Neel, M. D., 516 Sutter Street, San Francisco.
5. *A Study of a Series of Brain Tumors*—G. D. Maner, M. D., 1100 Mission Road, Los Angeles.

THIRD MEETING

Wednesday, May 14, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *Further Studies With Germanium Dioxide* — W. T. Cummins, M. D., Southern Pacific Hospital, San Francisco.
3. *Uremic Casts*—T. A. Addis, M. D., Lane Hospital, San Francisco.
4. *The Quantitative Amount of Lipoid Material in the Kidneys and Its Relation to the Functional Response in the Experimental Nephritis*—F. R. Nuzum, M. D., Cottage Hospital, Santa Barbara.
5. *Tuberculosis of the Tongue*—Howard Morrow, M. D., 380 Post Street, San Francisco.
6. *Pulmonary Spirochetosis*—C. E. Smith, M. D., University of California Hospital, San Francisco.
7. *Spirochetal Dysentery*—Leroy H. Briggs, M. D., 380 Post Street, San Francisco.

PEDIATRICS SECTION

EDITH BRONSON, M. D., Chairman,
1289 Second Avenue, San Francisco.

ROBERT E. RAMSAY, M. D., Secretary,
Marsh-Strong Building, Los Angeles.

FIRST MEETING

Monday, May 12, 8 p. m.

1. Chairman's Address: *Cardiac Disease in Childhood: A Problem in Preventive Medicine*—Edith Bronson, M. D., 1289 Second Avenue, San Francisco.
   Secretary's Report.
2. Lactic Acid Milk in Private Practice—James W. Chapman, M. D., Citizen's Savings Bank Building, Pasadena.
3. *Artificial Feeding of Breast-fed Infants*—William M. Happ, M. D., Pacific Mutual Building, Los Angeles.
4. *The Development and Re-establishment of Breast Milk by the Use of Electric Breast Pump*—Earl M. Tarr, M. D., Westlake Professional Building, Los Angeles.
5. *Summary of Unsupervised Diets of Infants Up to One Year of Age* — Adelaide Brown, M. D., 909 Hyde Street, San Francisco; Ernest L. Botts, Stanford University Hospital, San Francisco.

SECOND MEETING

Tuesday, May 13, 2 p. m.

1. *Synostosis of the Cranial Sutures in Infancy and Childhood*—Harold K. Faber, M. D., Stanford University Hospital, San Francisco.
2. *Empyema in Children at the Los Angeles General Hospital During the Last Ten Years* — Alfred J. Scott, M. D., 1501 South Grand Avenue, Los Angeles.
3. *Intensive Treatment of Congenital Syphilis*—Hermann Schussler, M. D., 391 Sutter Street, San Francisco.
4. *Diphtheria Immunization in Los Angeles* — Abraham Metzner, M. D., Union Bank Building, Los Angeles.

THIRD MEETING

Thursday, May 15, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *The Work of the Los Angeles Child Guidance Clinic*—

R. P. Truitt, M. D., 1401 South Grand Avenue, Los Angeles.

3. *Some Notes on the Psychology of Juvenile Delinquency* —Olga Bridgman, M. D., 680 Sutter Street, San Francisco.

RADIOLOGY SECTION

(Including Roentgenology and Radium Therapy)

M. P. Burnham, M. D., Chairman,
900 Hyde Street, San Francisco.

Ray G. Taylor, M. D., Secretary,
302 South St. Andrews Place, Los Angeles.

FIRST MEETING

Monday, May 12, 2 p. m.

1. Chairman's Address and Secretary's Report.
2. *X-ray of the Urinary Tract, With Report of a Case of Congenital Unilateral Kidney* (Lantern Slides)—Francis B. Sheldon, M. D., Mattei Building, Fresno.
   The paper will deal with the various conditions that are found in the course of X-ray examination of the urinary tract, and the presentation of this case of congenital unilateral kidney.
3. *Secondary Pulmonary Hypertrophic Osteoarthropathy Associated With Metastatic Sarcoma of the Lungs*—Lloyd Bryan, M. D., 135 Stockton Street, San Francisco.
   Report of two cases. Brief review of the literature. This condition is rare in acute cases, but occasionally it occurs. Usually associated with chronic pulmonary or circulatory pathology. These are skeletal stages associated with clubfingers, as described by Marie.
4. *Metastatic Bone Carcinoma*—Lyell Cary Kinney, M.D., 415 Elm Street, San Diego.
5. *Metastatic Carcinoma Involving the Abdominal, Mediastinal and Supraclavicular Glands Treated by X-rays. Well After One and One-half Years*—Henry J. Ullman, M. D., Cottage Hospital, Santa Barbara.
   Testicle removed. Microscopic diagnosis: Teratoma. Masses in abdomen, mediastinum and left clavicular region appeared five months later. Details of treatment. No evidence of tumor after one and one-half years.

SECOND MEETING

Tuesday, May 13, 2 p. m.

1. *Simultaneous Stereoscopic Examination of the Two Mastoids* — James B. Bullitt, M. D., Garden City Bank Building, San Jose.
   The roentgenogram is important, if not imperative, in the determination of mastoid disease and in reaching a decision as to treatment. The otologists, however, have apparently not reached unanimity as to the value of the roentgenogram. In the end the excellence of the radiographic examination must win recognition of its usefulness. The method described is offered as an advance toward the perfection of this form of examination.
2. *X-ray Diagnosis of Disease of the Nasal Accessory Sinuses With Reference to Sphenoid and Ethmoid Diseases*—Robert A. Powers, M. D., Palo Alto.
   Discussion of present methods. Dangers of erroneous interpretations of ethmoid conditions. Cross section X-ray studies of the ethmoid cells. Unit for super-imposed studies of the bones of the skull. A practical method for examination.
3. *Calibration of Roentgen Therapy Machines in California*—W. Edward Chamberlain, M. D., Stanford University Hospital, San Francisco; Robert R. Newell, M. D., Stanford University Hospital, San Francisco.
   An ionization chamber and galvanometer have been carried to the laboratories of California doing deep roentgen therapy. Measurements have been made of actual X-ray output. Standardization factors have been calculated for each laboratory.
4. *Radiotherapy in Benign Lesions of the Uterus*—Frederick H. Rodenbaugh, M. D., 516 Sutter Street, San Francisco; Irving S. Ingber, M. D., 516 Sutter Street, San Francisco.
   Comparative results of radium and high voltage therapy singly and in combination, with comparative dosage. Indications and contra-indications. Complications, with comparison of other methods of treatment. End-results, with possible danger from malignant degeneration.
5. *Roentgen Therapy of Uterine Myoma During Pregnancy*—John D. Lawson, M. D., Woodland.
   Review of the literature. Moderately hard radiation with aluminum filtration. Hard Roentgen rays with copper infiltration. Reaction of the tumor. Effect upon the fetus. General effect on the patient. Report of a case.

THIRD MEETING

Thursday, May 15, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *Survey of Non-Tubercular Chest Lesions* — Henry Snure, M. D., 1501 South Figueroa Street, Los Angeles.
   Survey of non-tubercular chest lesions with regard to differential diagnosis, especially lung tumors and infections. Changes in lung tissue due to deep X-ray therapy.
3. *An Interesting Case Report of Pulmonary Infarct Demonstrated by the Roentgen Ray*—Lloyd B. Crow, M. D., 391 Sutter Street, San Francisco.
   Pathology: Clinical, morbid, experimental. Anamnesis, brief. Physical findings. Laboratory, brief. Roentgen ray. Conclusions.
4. *Biological Effects Connected With Modern Deep Therapy*—Kurt F. Behne, M. D., 1407 S. Hope Street, Los Angeles.
   A resumé of the general effect of the energy of radiation upon blood and the circulatory system, and on the body metabolism. A general resumé of the importance of these body changes as produced by radiation when considered in the light of the pathology to be combated.
5. Lantern Slide Demonstration.

TECHNICAL SPECIALTIES SECTION

Ray Lyman Wilbur, M. D., Chairman,
Stanford University, Palo Alto.

John C. Wilson, M. D., Secretary,
Medical Office Building, Los Angeles.

MEETING

Wednesday, May 14, 10 a. m.

1. Election of Section Officers and Transaction of Other Section Business.

California Association of Physiotherapists

Hazel Furscott, President,
380 Post Street, San Francisco.

Hilda C. Rodway, Secretary,
177 Post Street, San Francisco.

Joint meeting of Technical Specialties Section with California Association of Physiotherapists.

1. President's Address and Secretary's Report.
2. *Localization of Effort in Muscle Training*—Harold D. Barnard, M. D., 2417 South Hope Street, Los Angeles; C. L. Lowman M. D., Brockman Building, Los Angeles.
3. *Torticollis*—William A. Clark, M. D., Central Building, Pasadena.
4. *Nutrition in Children* — Herbert M. Coulter, M. D., 1949 Huntington Drive, Pasadena.
5. *Muscle Re-education Following Reduction of Congenital Dislocation of the Hip* — Howard W. Chappel, M. D., 134 South Morton Avenue, Los Angeles.
6. *Endocrines Consideration of Body Types*—Clifford A. Wright, M. D., Auditorium Building, Los Angeles.
7. Business Meeting.

Wednesday, May 14, 2 p. m.

Clinic at Children's Hospital, Los Angeles.

Wednesday, May 14, 7 p. m.

Banquet—Mary Louise Tea Rooms.

Thursday, May 15, 2 p. m.

Clinic—Orthopedic Hospital School, Los Angeles.

California Association of Medical Social Workers

JOSEPHINE ABRAHAM, President,
Mt. Zion Dispensary, San Francisco.
MRS. SOPHIE MERSING, Secretary,
Mt. Zion Dispensary, San Francisco.

MEETING

Tuesday, May 13, 10 a. m.

1. President's Address and Secretary's Report.
2. *Influence of Medical Social Work on Obstetrics*—Armstrong Taylor, M. D., 135 Stockton Street, San Francisco.
3. *Introduction to Medical Social Service*—Miss N. Florence Cummings, Stanford Hospital, San Francisco.
4. *Motion Picture*—"The Watchful Eye": New York Hospital Social Service and Convalescent Work.
5. *Medical Social Service*—Percy T. Magan, M. D., White Memorial Hospital, Los Angeles.
6. *State Assistance to Its Dependent Children*—Miss Geneva S. Orcutt, Children's Agent, State Board of Control, State Building, San Francisco.
7. Business Meeting.

UROLOGY SECTION

LOUIS CLIVE JACOBS, M. D., Chairman,
Flood Building, San Francisco.
FRANK S. DILLINGHAM, M. D., Secretary,
Merchants National Bank Building, Los Angeles.

FIRST MEETING

Monday, May 12, 8 p. m.

1. Chairman's Address: *Unusual Problems in Surgical Prostate*—Louis Clive Jacobs, M. D., Flood Building, San Francisco.

   Leukemia in prostatectomy. Report of cases. Prostatic adenoma associated with vesical diverticuli. Report of cases. Retention of urine following prostatectomy. Lantern slides.

   Secretary's report.
2. *Case Report of an Unusual Type of Urinary Retention*—Wilbur B. Parker, M. D., 527 West Seventh Street, Los Angeles.

   Unusual urinary retention associated with simple generalized prostatic hypertrophy both unknown and unsuspected. Retention followed attack of food poisoning, and developed features commonly noted in urinary suppression such as lethal point in blood retention products, general water-logging relieved by gradual, prolonged withdrawal of vesical contents, preparatory to successful prostatectomy.
3. *Some Important Points in the Rapid Healing, Complete Restitution of Function, and Low Mortality in Suprapubic Prostatectomy Cases*—Herbert A. Rosenkranz, M. D., W. P. Story Building, Los Angeles.

   Preparatory: (1) Important prognostic points. (2) Selection of trustworthy nurses. (3) Common diagnostic mistakes. (4) Digitalization. (5) Gastrointestinal hygiene. One-stage versus two-stage operation. Anesthetics: Gas and spinal. Operative: Simplicity, dispatch, avoidance of shock. Post-operative: Patients almost as dry as ordinary laparotomy cases. Asepsis of tubing and bottle. Post-operative complications: Avoidance of hemorrhage, uremia, hiccough, epididymitis, bed-sores. Remote results. Impotence, residual urine, cystitis, longevity.
4. *Kidney Anomalies. Report of a case of Bilateral Fusion of a Supernumerary Kidney*—William E. Stevens, M. D., Flood Building, San Francisco.

   Fused kidney, supernumerary kidneys. Report of a case of supernumerary kidney with fusion of the three kidneys. Lantern slides.
5. *Injuries to the Urinary Organs in Relation to Industrial Accidents*—Robert V. Day, M. D., Detwiler Building, Los Angeles; Harry W. Martin, M. D., Black Building, Los Angeles.

   (1) Urethral injuries without fracture of any pelvic bone. (2) Incidence of injuries to urethra and bladder in cases of fractured pelvis. (3) Injuries to the kidney. (4) Injuries to the testicles or epididymis.

SECOND MEETING

Tuesday, May 13, 2 p. m.

1. *Malignant Tumors of the Kidney*—Frank Hinman, M. D., 516 Sutter Street, San Francisco; A. A. Kutzmann, M. D., University California Hospital, San Francisco.
2. *Carbuncle of the Kidney*—Charles P. Mathe, M. D., 760 Market Street, San Francisco.

   (1) Portal of entry with its relation to infections of the skin, i. e., furunculosis, boils, and carbuncles. (2) Case report. (3) Pathogenesis. (4) Treatment.

   Discussion opened by L. Player, M. D., 516 Sutter Street, San Francisco.
3. *The Relation of the Appendix to the Right Ureter and Kidney*—Henry A. R. Kreutzmann, M. D., 1195 Bush Street, San Francisco.

   Report of three cases of appendicitis simulating urinary disease. Discussion of the anatomical relation of the appendix to the right ureter and kidney.
4. *Stricture of the Ureter With Report of Cases*—R. L. Schulz, M. D., Story Building, Los Angeles.

   Etiology, histogenesis, mechanism involved. General symptoms. Findings, positive and negative. Procedures, ordinary and special. Precautions as to methods for diagnosis. Unfavorable reactions which sometimes occur with ordinary methods and how to avoid them. Treatment: The importance of overdilatation and the mischief of insufficient dilatation. Removing foci of infection.
5. *Polyps of the Vesical Orifice; Symptoms and Treatment* (with slides)—Miley B. Wesson, M. D., 870 Market Street, San Francisco.

THIRD MEETING

Thursday, May 15, 2 p. m.

1. Election of Section Officers and Transaction of Other Section Business.
2. *Some Problems in the Management of Tumors of the Urinary Bladder*—Paul A. Ferrier, M. D., 2211 Mar Vista Avenue, Pasadena.

   Pathology: Practical importance, clinical types, difficulties in diagnosis, prognosis. Treatment: Limitations of fulguration, diathermy, radium, deep X-ray therapy. Operable-condition of patient, operative technique, palliation. Cases, results, conclusions.
3. *Tuberculosis of the Epididymis, Vas and Seminal Vesicles*—James R. Dillon, M. D., 516 Sutter Street, San Francisco.

   A review of the literature would indicate the primary focus of tuberculosis in the above organs to be in the epididymis. Recent investigation by a few urologists doing the radical operation of epididymectomy, vasectomy, and vesiculectomy has shown the seminal vesicles to be the most likely primary lesion of tubercular epididymitis. Gross pathology. Brief case reports. Conclusions. Lantern-slide demonstration.
4. *A Congenital Diverticulum of the Posterior Urethra, With Some Remarks on the Modern Methods of Investigation and Treatment of Seminal Vesiculitis.* Illustrated with Lantern Slides—Martin Molony, M.D., 1056 Sutter Street, San Francisco.

   A detailed description of a congenital diverticulum of the posterior urethra in a patient with chronic seminal vesiculitis. Illustrated with lantern slides showing various views of the orifice, and with radiograms of the injected sac showing both seminal vesicles opening into it. Part Two. Seminal Vesiculitis: Some remarks on the complication that may arise in the course of the investigation and diagnosis of a case; the advantages and disadvantages of some methods of treatment, with a comparison of the modern method of injecting the seminal vesicles.
5. *Spinal Anesthesia in Urology*—J. C. Negley, M. D., Haas Building, Los Angeles.

   Length of time in use, reason for spinal anesthesia, drugs used and their preparation for injection, method of injection, the immediate and remote effects, depth of anesthesia, number of cases used by us and summary.
6. *The Godino Twins*—R. H. Van Denburg, M. D., Merchants National Bank Building, Los Angeles.

   Joined together since birth, manners, characteristics, adaptability of locomotion, study of their urogenital tracts, with view to separation. Photographs of different poses. Diagram to illustrate their lower intestinal tracts. Conclusions. Lantern slides.
7. *Surgical Anatomic Consideration of Male Perineum* (lantern slides)—C. Latimer Callander, M. D., 240 Stockton Street, San Francisco.

COUNTY NEWS

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary) — The February meeting of the Association was held on the evening of the 18th, President C. L. McVey in the chair.

Patients were presented and case reports given by W. B. Allen, Sumner Everingham, and Howard Parker.

The following program, arranged by G. G. Reinle, was given:

Lower Urinary Tract Obstructions.—E. Spence DePuy. Discussion opened by A. M. Meads.

Pyelography.—A. C. Siefert. Discussion opened by W. H. Sargent.

Constitutional Effects of Lower Urinary Tract Obstruction.—Charles L. McVey. Discussion opened by Fletcher B. Taylor.

Those participating in the general discussion were: P. N. Jacobson, Q. O. Gilbert, Raymond St. Clair, W. B. Palamountain, and A. T. Piercy.

C. A. Dukes offered a memorial to our late colleague, Stephen Wythe, which was ordered spread upon our minutes and a copy forwarded to his family.

The clinic conducted by George Dock of Pasadena on February 29 was most interesting. Considering the short notice, the meeting was well attended and thoroughly appreciated by all. Those who could not attend felt that they had missed an opportunity.

The annual banquet of the Merritt Hospital staff, held March 5 at the Hotel Oakland, was a delightful affair. The decorations, mostly of blossoms, were unique and beautiful. Sixty guests were present and listened to a rare program. Prof. John Adams of the University of London was the guest of honor. His address will be long remembered. George Rothganger, chief of staff, presided.

The regular monthly meeting for March was held on the 17th, President C. L. McVey in the chair. The program was presented by the Fabiola Hospital staff, as arranged by E. W. Goodman.

Demonstrations

Post-appendical Subdiaphragmatic Abscess.—G. H. Liliencrantz.

Leprosy.—A. M. Meads.

Bilateral Osteomyelitis of the Mandible.—A. E. Sykes.

Pathological Specimens.—Gertrude Moore.

Radical Frontal Sinus Operation.—F. M. Shook.

Papers

Observations in Vomiting of Pregnancy.—J. W. Sherrick.

The Place of Surgery in Brain Injuries.—E. W. Goodman.

Radium in Gynecology.—E. N. Ewer.

These papers were discussed by E. N. Ewer, F. M. Loomis, W. B. Allen, M. L. Emerson, W. H. Sargent, and Dudley Smith.

The following outline of plan for standardization of Wassermann reaction in accordance with a resolution adopted at the regular meeting held November 19, 1923, as submitted by the committee, was unanimously adopted:

"First—A commission consisting of five members shall be appointed from the Alameda County Medical Association, who shall serve for a period of five years, one term expiring at the end of each year. The duties of this commission shall be to certify laboratories for the performance of the Wassermann reaction, and to delegate the technical duties to proper authorities. A certified laboratory is defined as—

"1. Being one under the direction of a clinical pathologist. (Note—A clinical pathologist is a doctor of medicine, devoting at least one-half of his time to laboratory practice and having had at least one year's experience in laboratory work under the direction or supervision of a clinical pathologist.)

"2. Doing all Wassermann reactions in duplicate, with at least one set according to the method of Kolmer.

"3. Using technicians who are graduates of recognized universities, having majored in a science allied to medicine, and who have had at least six months' post-graduate serological experience.

"It is desirable to have one of the antigens used in the test in a certified laboratory, a common antigen made after the method of Kolmer.

"Laboratories desiring standardization shall make application to the commission, and upon demonstration of a proper equipment, medical director as above outlined, technicians with proper qualifications and experience, are entitled to receive certification. In order to maintain certification, a laboratory must live up to all the rules laid down by the Commission, including a proper check on Wassermanns at regular intervals."

CONTRA COSTA COUNTY

Contra Costa County Medical Society (reported by L. St. John Hely, secretary)—The regular monthly meeting was held at the Abbott Emergency Hospital, Richmond, Saturday, February 23, 1924.

Doctor Southard of San Francisco, eye, ear, nose, and throat specialist, lectured on "Headache." He gave a very exhaustive analysis of the cause and symptoms of the malady. His conclusions were that 80 per cent of all headaches are caused by eyestrain. The others by various infections in other parts of the body. A free discussion followed the lecture.

The committee of censors reported on the free use of the County Hospital at Martinez for patients that were able to pay for private care, both for medical and hospital service. The secretary was instructed, by a motion of the members, to take the matter up with the clerk of the Board of Supervisors, advising them of the wishes of the Contra Costa County Medical Society.

A representative of the Aetna Life Insurance Co. was present and explained the "Group" method of medical defense. He will write an explanatory letter and mail to each of the members.

After the meeting the members adjourned to Martin's Grill for lunch. The following members were present: P. C. Campbell, J. T. Breneman, H. L. Carpenter, W. E. Cunningham, C. R. Leech, J. Emmett Clark, F. Lisle Horne, John Beard, Hall Vestal, L. St. John Hely, Southard, San Francisco.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—The regular meeting of the Fresno County Medical Society was held at the Nurses' Home of the General Hospital of Fresno County on the evening of March 4.

Thirty-six members and five visitors were present, as follows: Members — Doctors James, Newton, Thompson, Kjaerbye, B. Petersen, Jamgotchian, Wiese, Couey, Miller, Tillman, Wahrhaftig, Willson, Pettis, S. M. Long, Morgan, Bell, Aller, Scarboro, Lamkin, J. R. Walker, G. W. Walker, Barrett, Wheeler, Montgomery, Craycroft, Vanderburg, Sheldon, Konigmacher, Anderson, Schottstaedt, Dearborn, C. A. Robinson, and Adams. Visitors—Doctors Jelalian, Meracle, Nedgerly, H. O. Collins, Skoonberg, and Take.

Hans Barkan of the Stanford Medical School of San Francisco gave a very instructive paper on "Ocular Headaches." He divided such headaches into (1) those due to use of the eyes, and (2) those due to diseases of the eyes. He emphasized especially the importance of refraction and the value of having it done by an oculist. Discussion by J. R. Walker, Kjaerbye, and Barkan.

W. F. Schaller, also of the Stanford Medical School, presented a paper on the "Present Aspect of the En-

cephalitis Situation." This was very interesting and instructive, covering the field from etiology to treatment as far as is known.

The Staff of the General Hospital of Fresno County held its annual dinner and election of officers at the Hotel Californian on the evening of February 12. T. F. Madden acted as toastmaster. Talks were made by D. I. Aller and C. O. Mitchell, and Dean MacDonald of the County Welfare Department. The following officers were elected for the coming year: President, A. B. Cowan; vice-president, F. B. Sheldon; secretary, C. A. James.

W. F. Schaller of San Francisco spoke at the noon luncheon of the staff of the General Hospital of Fresno on March 4, on the subject of the treatment of Neurosyphilis.

HUMBOLDT COUNTY

Humboldt County Medical Society (reported by L. A. Wing, secretary)—A meeting was held February 21 at Eureka, with an attendance of twenty.

Election of officers for the ensuing year resulted as follows: President, O. R. Myers; vice-president, Mabel A. Geddes; treasurer, John N. Chain; secretary, Lawrence A. Wing; delegate to State Convention, Carl T. Wallace; alternate, E. L. Cottrell; committee on program, Doctors Chain, McKinnon, and Marshall.

New members elected: Mabel A. Geddes, Matthew J. Beistel, and William Warren Styles of Blocksburg.

Meetings will be held the last Tuesday of each month.

The program of the meeting consisted in a discussion on Gall-bladder diseases by Doctors Quinn, Chain, Marshall, Beistel, and Wallace.

The meeting was followed by an excellent dinner and a very interesting evening, and adjourned to meet again on March 25.

LOS ANGELES COUNTY

Barlow Medical Library—The annual report of this library shows an increasing progress made during the year 1923. One of the great needs of not only the medical profession, but of the public in Southern California, is adequate library facilities. A splendid nucleus now formed by the Barlow Medical Library ought to have the very liberal and hearty support of physicians everywhere. Its importance should be brought to the attention of the public in such a way that it might have reasonable opportunity to secure annuities, endowments, and offerings of all kinds.

The trustees of the library are: T. C. Lyster, M. D., 1924 (December), to January, 1925; George Kress, M. D., 1924 (December), to January, 1925; Carl Rand, M. D., 1925 (December), to January, 1926; William Duffield, M. D., 1925 (December), to January, 1926; H. E. Schiffbauer, M. D., to January, 1927; Henry H. Sherk, M. D., to January, 1927; George Dock, M. D., to January, 1927.

Trustees-at-large to serve for one year: W. Jarvis Barlow, M. D.; Norman Bridge, M. D.; Roland E. Skeel, M. D.; Granville MacGowan, M. D.; W. W. Beckett, M. D.; F. C. E. Mattison, M. D.; Mrs. Mary E. Irish, librarian.

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—The Society met on March 4 at San Bernardino County Hospital, twenty members being present and ten guests.

E. Avery Newton of Los Angeles gave a paper on "Cardio-Renal-Vascular Disease," illustrated by lantern slides; followed by presentation of patients, who were examined and their abnormalities discussed by Dr. Newton.

A. L. Haenszel of San Bernardino and J. Hubert Smith of Victorville were received as new members.

Elgar Reed of Chino and J. W. Benners of San Bernardino have passed away.

J. A. Connell, formerly of San Bernardino, transferred to Riverside County.

SAN DIEGO COUNTY

San Diego County Notes (reported by Robert Pollock)—The regular meeting of the Medical Society of February 26 at Science Hall, Balboa Park, was one of extreme human interest. A discussion of the value of certified milk and its bearings on the local situation was staged by Doctor Wessels in connection with entry upon the local market of the New Esmeralda certified product.

Doctor Hileman opened a lively discussion from the floor by reading a paper entitled "Trachoma and Certain Cases of Conjunctivitis That Are Being Diagnosed as Trachoma." This paper touched practically upon the high spots of diagnosis and treatment and was received with great enthusiasm. The discussion following was participated in by Doctors Carrington, Dingeman, Banks, Grant, Hosmer, Lesem, Thornton, and Hileman.

Charles Brown, who has recently returned from a protracted tour of European clinics, gave a very interesting talk on some of his experiences abroad. Incidentally he highly lauded the activities of the American Medical Association in Vienna.

The new St. Joseph's Hospital, not yet completed, is already planning an extensive addition in the form of a wing with a capacity of seventy-five beds.

The new La Jolla Hospital expects to open its doors in July next.

A Mental Hygiene movement was recently organized in San Diego under the name of the Bureau of Child Guidance.

On Friday evening, March 7, many of the members of the County Society attended the lecture by Samuel G. Gant of New York City on "Local Anesthesia in Operations About the Rectum," after which adjournment was made to the refreshment room, where the company partook of the sociability and refreshments for which the medical staff of the Naval Hospital is noted.

SAN FRANCISCO COUNTY

Proceedings of the San Francisco County Medical Society—During the month of February, 1924, the following meetings were held:

Tuesday, February 5—Committee on Medicine: Some Observations on Pneumonia on the Pacific Coast—W. J. Kerr. Complications and Coincident Diseases of Pulmonary Tuberculosis—W. R. P. Clark.

Tuesday, February 12—General Meeting: Some Observations on Sacro-iliac Pain—Arthur L. Fisher. The Newer Aspects of the Diagnosis of Tabes Dorsalis—Charles E. Nixon.

Tuesday, February 19—Committee on Industrial Medicine—Osteo-Arthritis (Spine) in Industrial Injury: Etiology of Arthritis—H. H. Markel. Osteo-Arthritis of the Spine with Particular Reference to Protracted Disability—J. T. Watkins. Examination and Treatment—R. L. Dresel.

Tuesday, February 26—Committee on Eye, Ear, Nose, and Throat—Symposium on Headaches: Ophthalmology—Hans Barkan. Otorhinolaryngology—Wallace B. Smith. Neurology—Walter F. Schaller. Internal Medicine—LeRoy H. Briggs.

St. Joseph's Hospital Staff Meetings—On March 12 St. Joseph's Hospital staff of San Francisco witnessed a demonstration by Ethan Smith and Frank Lowe of a patient with extraordinary polyarthritic lesions.

A. S. Keenan spoke on "New Medical Ideas Noted in the Old World." Impressions on Italian, English, and German surgery and surgeons were given. European nurses were reported as doing but little of the immediate preoperative preparation of patients and laboratory work was generally done by the attending physician himself. Tying of the carotids in hydrocephalus and the expectant, eliminative treatment of eclampsia were giving satisfactory results.

F. H. Rodenbaugh spoke on "X-ray as an Aid to Early Diagnosis," illustrating with lantern slides. Gastro-intestinal and bone lesions of the head, trunk and extremities were demonstrated to show early and

accidental radiological findings of importance. P. K. Brown dwelt upon chest and abdominal radiograms as they aid the physician.

Case reports were presentcd by A. S. Musante; Pyloric Carcinoma and Gastro-enterostomy, William Quinn; Influenzial Meningitis, J. M. Stowell; Purulent Chest, and W. T. Cummins and C. H. Hoag, Parotid Malignancy.

The program for April 9 follows: "Avoiding Neurological Errors in General Practice," C. E. Nixon; "Blood Transfusion," Sterling Bunnell; and "Demonstrations of X-ray Plates and Pathological Secimens," L. B. Crow and C. E. Smith.

Southern Pacific General Hospital Staff Meeting (reported by W. T. Cummins, secretary)—The regular monthly staff meeting was held at the Southern Pacific General Hospital, Huntington Hall, on Wednesday, March 5.

The scientific program was as follows:

Our Urological Department and an Illustrated Presentation of Interesting Cases (Roentgenologic Demonstration)—G. L. Eaton.

The Incidence of Perforated Gastric and Duodenal Ulcers in 4000 Admissions—J. H. O'Connor and J. A. Guilfoil. Presented by Guilfoil. Discussed by O'Connor and P. K. Brown.

Case Report of Angiosarcoma of Liver, with demonstration of gross specimen—J. D. Humber.

Case Report of Cerebellar Tumor, with demonstration of gross specimen—P. K. Brown.

Roentgenologic Demonstration—L. B. Crow.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by Alex C. Soper Jr., secretary)—At the meeting held March 10 at the Cottage Hospital, there were present twenty-one members and four internes. President Robinson in the chair.

Report being made by the secretary on the cause of the printer's failure to get out notices on time, it was moved and seconded and passed that the business with him be forthwith terminated, and transferred to the Pacific Coast Publishing Co.

Discussion on the charter, constitution and by-laws caused a motion by Ullman, seconded by Bagby, and passed, that the Chair appoint a committee to draft a constitution in accord with the requirements of the State Society. The Chair appointed Stevens, Henderson, and Ryan.

The matter of J. C. Thorpe and his projected therapeutic gymnasium was discussed at some length, and the Chair requested that the members read the letter addressed to them by Mr. Thorp, and be prepared to vote on the subject at the next meeting.

Five-minute case reports, as follows: "Extraperitoneal Cesarean for Placenta Previa," by H. F. Pierce.

"Thyroidectomy in the Diabetic," by Rexwald Brown.

"Appendiceal Retention," by Henry J. Ullmann.

The paper of the evening was on "Brain Surgery," by Edward Bancroft Towne of San Francisco, illustrated with lantern slides. Discussion was participated in by Ullmann, Campbell, Nuzum, and Stevens.

Meeting duly adjourned at 10:20.

SONOMA COUNTY

Sonoma County Medical Society (reported by N. Juell, secretary)—The Society met at Santa Rosa February 21, with seventeen members present and eighteen absent.

New members: Clara Pratt Sparks, Santa Rosa; Rosco E. Hamlin, Santa Rosa; Herman W. Covey, Eldridge.

Resigned: A. R. Graham of Tomales.

Delegates elected to annual meeting of C. M. A. were as follows: Henry S. Rogers, Petaluma; alternate, F. O. Pryor, Santa Rosa.

The meeting was devoted to discussion of advertising and relation to the cults.

At the last meeting a complaint was entered against one member for unethical conduct and advertising. The board of censors sustained the complaint. The member explained that he realized his error, but that he had no intention of violating medical ethics, to which he fully subscribed. He offered his apology, and the complaint was dropped. The result of the discussion was that the best way to meet the cults was to maintain a high standard of efficiency and ethics.

On Thursday, March 13, the Society held another meeting at Santa Rosa, with eleven present and twenty-four absent.

Alfred C. Reed of San Francisco delivered a very interesting address on "Vitamins and Food Deficiency Diseases."

The plan of the Child Hygiene Bureau for preschool examination of children was adopted, and S. Z. Peoples of Petaluma appointed to represent the Society on the central committee.

Resolution of regret for the death of W. B. Hays of Sonoma was adopted.

STANISLAUS COUNTY

Stanislaus County Medical Society (reported by E. R. McPheeters, secretary)—On January 11, the Society held a meeting at Hotel Modesto, beginning with a banquet. Meeting called to order by President R. E. Maxwell.

Members present: F. R. DeLappe, John C. Cooper, R. S. Hiatt, H. M. Presler, F. J. Peters, N. G. Chipman, C. E. Finney, B. F. Surrhyne, E. F. Reamer, John K. Morris, J. C. Collins, L. D. Mottram, J. E. Hosmer, R. E. Maxwell, C. E. Pearson, E. R. McPheeters.

Committee appointed to arrange for next meeting night, Modesto High School, E. R. McPheeters and B. F. Surrhyne.

Committee appointed for March meeting in Turlock, J. C. Collins, F. J. Peters, C. E. Pearson, N. G. Chipman, and H. M. Presler.

Board of censors appointed as follows: C. I. Bemis, F. R. DeLappe, and A. J. Young.

A paper by A. C. Reed of San Francisco, on "Heart Diseases in Every-Day Practice," was very attentively listened to and discussed by the members present.

A vote of thanks was extended the speaker, and the meeting was dismissed by the president.

The February meeting was held at Modesto high school auditorium, beginning with a banquet served by the culinary department of the Domestic Science class. President Maxwell presided.

After the banquet the medical society and the ladies were entertained for a short time by folk-dancing, after which the ladies played Ma Jongg and bridge, and the medical society listened to a paper read by Frank L. Kelly of San Francisco. Twenty doctors and their wives were present.

F. W. Didier and C. H. Griswold were accepted into the Society.

A plan was accepted whereby the Health Department is to furnish toxin-antitoxin to the doctors at $3 per.

Arrangements were made to hold the March meeting in Turlock.

TULARE COUNTY

Tulare County Medical Society (reported by Norman C. Paine, secretary)—At the meeting held January 20, the following officers were elected for the ensuing year: President, A. W. Preston (re-elected); vice-president, I. H. Betts; secretary, Norman C. Paine; censor, J. C. Paine.

The Society is planning greater activity during the coming year than in the past, and a closer relationship with the State association.

YOLO COUNTY

Yolo County Medical Society (reported by Lela J. Beebe, secretary) — The regular quarterly meeting was held March 11 at Red Cross rooms at County Courthouse, Woodland. Present: Drs. Bates, Beebe,

Blevins, Cooper, C. H. Fairchild, Lawhead, Newton, Ward, Abrent, Bransford, F. R. Fairchild, Harbinson, Keith, King, Lawson, McManus, Parsons, Poage, Rathbun, and Salter.

Program: "Report of seven recent cases of influenza with unusual symptoms"—H. J. Blevins. "Report of cases of gastro-intestinal influenza"—W. E. Bates.

Doctor Blevins' paper dealt with a group of cases occurring in Woodland, presenting the usual signs and symptoms of influenza, added to which were marked eye symptoms of sclera, photophobia, some protrusion of eyeball in most severe cases, and very severe pain in eyes and head. Five of these cases occurred in a boarding-house.

Doctor Bates' group consisted of children under six, all of whom showed severe constipation and vomiting as outstanding symptoms. The discussion of these papers brought out many interesting points in diagnosis and treatment.

Election of officers resulted as follows: President, Charles Keith, Williams; vice-president, Thomas Cooper, Davis; secretary, Lela J. Beebe, Woodland; assistant secretary, John D. Lawson, Woodland.

The Woodland Clinic has held programs as follows:

February 19—Symposium on focal infection, including medical, dental, and X-ray diagnosis and treatment.

March 18—Symposium on chronic indigestion.

The Society voted its endorsement of the effort of the State Board of Health and State Board of Education to encourage the examination of pre-school children this spring, and many of the individual members are volunteering time for this service.

Under the County Health Officer, H. D. Lawhead, a campaign for education on the value of immunization against diphtheria has been started, and the county health service is arranging clinics for such immunization in some parts of the county.

Notice of Resurrection — Soon after P. B. Wing came to California in 1918 from Tacoma, he began to be haunted by his own ghost, as it were. First, the Board of Medical Examiners informed him, when he sent them his annual tax, that he had died, and they tried to prove it by giving him the name of his school, date of graduation, former residence, etc. However, the doctor refused to believe even so official a record, and finally convinced the board that the report had been "slightly exaggerated." However, this did not seem to "lay the ha'nt," for as late as the A. M. A. convention last summer a number of his old friends seemed very much surprised to see him alive. Finally, the doctor decided to run the rumor to its source, and learned that in the September, 1911, issue of this Journal (seven years before he had come to California) there had appeared a notice that P. R. Wing had died at Arroyo Grande, whereas it should have been C. E. Wing.

We, of course, like to believe in the power of our Journal, but we had hardly hoped that a two-line notice published more than a dozen years ago could extend its influence so widely. Be that as it may, we are very glad to say that P. B. Wing is, and has been for many years, a member in good standing of the San Diego County Medical Society and the California Medical Association, as we hope and trust he will continue to be for many years to come.

Phi Chi Fraternity Luncheon During State Convention—The Los Angeles Alumni Chapter of the Phi Chi Medical Fraternity have arranged for a luncheon during the convention of the California Medical Association, in Los Angeles. The Chapter has made elaborate preparations for the entertainment of the visiting members at the University Club, Wednesday, May 14, from 12:30 to 2 p. m. It is requested that the members make themselves known at the registration bureau at the Biltmore Hotel.

ACKNOWLEDGMENT OF REPRINTS

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Concerning the Cross-Fixation of Syphilitic Antigen by Tuberculous Sera. Reprinted from The Journal of Laboratory and Clinical Medicine, St. Louis, Vol. LX, No. 2, November, 1923.

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and Nixon, Charles E. Mental Retardation and Ductless Gland Disease. Reprinted from The Journal of the American Medical Association, October 6, 1923, Vol. 81, pp. 1174-1178.

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An Operative Method for Correction of Certain Forms of Flatfoot. Reprinted from The Journal of the American Medical Association, November 3, 1923, Vol. 81, pp. 1500-1502.

The Surgical Importance of Torsion Deformities. Reprinted from the Boston Medical and Surgical Journal, Vol. 189, No. 12, pp. 411-414, September 20, 1923.

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See Cole, William.

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Van Nuys, R. G.
See Moody, R. O.

Board of Medical Examiners, State of California (reported by C. B. Pinkham, M. D., secretary)—At the meeting of the Board of Medical Examiners held in Los Angeles, February 18 to 21, 1924, approximately 200 applications for reciprocity were considered, about 50 oral examinations were conducted, and 54 applicants wrote the three-day examination, most of whom were applicants for a physician's and surgeon's certificate.

A number of legal hearings were conducted, which resulted in the following penalties being imposed:

Heinz George A. Hummel, M. D., illegal operation; license revoked.

August Stone, M. D., illegal operation; license revoked.

George E. Thwaites, M. D., narcotic conviction; license revoked.

Several petitions were presented for restoration of licenses heretofore revoked.

The special investigation committee appointed to check up on the diploma-mill exposé, presented a comprehensive report of about sixteen pages, incorporating certain suggestions for legislation whereby the activities of the diploma-mills and their products may be curbed. The committee was directed to continue its activities and investigations.

Reports of various committees, as well as the investigation and legal reports were submitted, showing the activities of these departments, always summarized in the annual report of the secretary, and printed in each annual directory.

Utah State Medical Association

Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—A regular meeting of the Salt Lake County Medical Society was held at the Salt Lake County Hospital February 25, President A. A. Kerr presiding. Seventy-six members and twenty-four visitors were present.

Guy Van Scoyoc read a paper on the "Treatment of Tuberculosis by a Calcium Preparation Administered Intravenously," going into the metabolism and physiological action of calcium, the chemistry of the preparation used, and therapeutic effects. He presented cases which showed marked improvement in their pulmonary condition following administration of the preparation. This paper was discussed by Straup, McHugh, Vico, Groesbeck, Jellison, and Behle.

W. C. Cheney presented a case of Spastic Diplegia in an infant six months' old, and a case of Chronic Adhesive Pericarditis in a boy of eight years.

Roy Groesbeck presented a case of Empyema following Pneumonia treated by the closed method, with apparent cure but later recurrence. This was discussed by Straup and Behle.

Doctors Maddison and Miller presented a patient who had had Trichiniasis thirteen years ago. The patient recently developed appendicitis, and on operation a piece of abdominal muscle was removed, and cysts containing trichinae were found in the muscle. These were demonstrated under the microscope.

F. J. Curtis presented a case of Epilepsy Petit Mal Type, With Psychic Equivalents, which was very interesting from a medico-legal standpoint. He also presented a case of General Parcsis with simple deterioration.

J. E. Tyree presented a case of Perthe's disease. This patient had several brothers and sisters with the same disease. He discussed the pathology, treatment, and differential diagnosis. Discussion by Tyndale and Straup.

L. N. Ossman presented a case of Tuberculosis of the Spine With Paraplegia with complete relief of the paralysis, following immobilization of the spine.

F. E. Straup presented a case of gunshot wound of the liver. George Roberts showed an interesting chart of a patient with measles and erysipelas.

Application for membership by Newton Miller was read and referred to the Board of Censors. Burtis F. Robbins and S. H. Besley were unanimously elected to membership in the Society, sixty-two members voting.

Doctor Calderwood reported for his committee, which was appointed to investigate institutions caring for charity patients. He recommended that the City Board of Health be petitioned that the Baby Clinic be discontinued until a better plan could be adopted, after which reorganization might be effected. He also recommended that the president be authorized to appoint a committee of three to plan the new organization of the clinic. Doctor Galligan moved that the report be accepted, seconded by J. Z. Brown, and carried.

John Z. Brown spoke of the effort to have the Harrison Narcotic laws modified and the physicians' income tax reduced, and made some suggestions to the physicians in filling out their income tax returns.

A. J. Hosmer reported for the committee appointed to confer with the Civic Center relative to a course of instruction in home nursing, and recommended that the Society endorse a schedule of lectures to be given. He also recommended that another committee be appointed to investigate the feasibility of having introduced into the local hospitals a shorter course of training for the preparation of nurses' aids, or practical nurses. Doctor Calderwood moved the adoption of the report, seconded and carried.

After adjournment at 10:15 p. m., refreshments were served by the hospital nurses.

Minutes of Meeting Held March 10—The Salt Lake County Medical Society met at the Commercial Club, Salt Lake City, Utah, March 10, with sixty-six members and five visitors present, President Kerr presiding.

The minutes of the previous meeting were read and accepted without correction.

Clarence Snow reported three children immunized against measles by injection of serum from a convalescent case.

Doctor Holbrook presented a very interesting clinical case of osteitis fibrosa involving many bones. X-ray films of the case were presented by Mr. Thody. Discussed by Llewellyn and S. H. Allen.

Doctor Schulte reported a case which died of general carcinomatosis, the original tumor involving the bladder. Pathological specimens were shown.

The first paper on the scientific program was entitled "Diagnosis and Treatment of Peptic Ulcer," by George A. Cochran. Physiology of the stomach, symptoms, complications, and Sippy treatment for ulcer were dealt with. Discussed by S. H. Allen and W. L. Lindsay.

The second paper was "Diseases of the Cornea," by F. M. McHugh, in which he set forth clearly the anatomy of the cornea. He gave a classification of the ulcers of the cornea, symptoms, complications, and treatment. He also dealt on wounds of the cornea and the treatment of some of the complications by injection of foreign proteins. This interesting paper was discussed by E. M. Neher and L. W. Snow.

Transfer card recommending J. W. Henderson from the Weber County Medical Society, and his application were read. Doctor McHugh moved that the Society vote on his application for membership by transfer at this meeting. Seconded and carried. Doctor Henderson was elected to membership by transfer, forty-eight members voting.

Newton Miller was elected to membership, forty-eight members voting. The applications for membership of Eskelson and Jones were read and referred to the Board of Censors.

A letter from Chief of Police Burbidge, requesting physicians to pay their annual fee of $5 for the three-hour parking privilege, was read.

Doctor Calderwood reported for his committee that they had decided that the best method of handling the baby clinic was to turn it over to the community clinic, so that proper investigation of the patients could be made, the clinic to be under the care of pediatricians in rotating services. He recommended that the community clinic take over the baby clinic. This report was discussed by Helmina Jeidell, who said that, in her opinion, if this were done, it would pauperize the patients, so that many babies who, under the old system were being taken care of, would not be brought to the clinic, and felt the clinic should be continued as heretofore. Doctor Scott moved that the report of the committee be accepted. Seconded by J. Z. Brown. Carried.

The editor wishes the secretaries of the other County Medical Societies in Utah would furnish as excellent reports of their meetings as those furnished by Critchlow for the Salt Lake Society. Also any other items of interest. California and Western Medicine is your official publication, and should reflect your activities fully, as it will do if you will co-operate to the extent of sending the material.

Annual Meeting to be Held June 19, 20, 21—The officers and committee on Scientific Work of the Utah State Medical Association have set the date for the next annual Convention, which is to be held in Logan, Utah, for June, 19, 20, 21, 1924. They have secured three very excellent speakers, and expect others. The complete program will be published in a later issue of this Journal. It is anticipated that our annual convention this year will be equal to any we have had in the past.

Proposed Change in Amendment of the Constitution and By-Laws of the Utah State Medical Asso-tion—It is proposed to amend the constitution and by-laws of the Utah State Medical Association, so that the calendar year shall be the fiscal year. As the amendments now read, the fiscal year ends March 31, and it is proposed to have it end December 31. This will mean that all dues for the calendar year must be paid January 1 for that calendar year, and all dues not paid by that time will constitute a suspension of the members on the rolls of the Association. The members may be reinstated by payment of dues at any time during the calendar year. The present by-laws provide that a member shall not be suspended before March 31, so that members are carried on a three months' period of grace. The American Medical Association has adopted the calendar for its fiscal year, and has advised the various State associations to do the same. This matter was referred by the last meeting of the House of Delegates to the council for consideration and recommendation. The council has considered, and now recommends to the Association that such action be taken. If the proposed amendment is adopted, it will change the words in Chapter 9, Section 11, from March 31 to January 1., and in the same paragraph, Section 13, the words, "on or before March 31" to "on or before January 1," in two places, namely, line 7 and line 13.

Increasing Complexities of Medical Science—In an address before the Cincinnati Academy of Medicine, Ray Lyman Wilbur said, among other things (Cincinnati Jour. Med.): "Medicine fifty years ago was a simple personal relationship between the patient and the doctor. But the minute the laboratory became essential, medicine changed materially. Commercial medical schools had to drop out and university training came in. We have been trying to obtain a combination of the laboratory on the one side, bringing in new facts, and the art of medicine, or the application of those facts to the individual, on the other side. We have seen the most interesting period we will ever see in medical education.

"What results have obtained? I will say quite frankly that I think we have gone too far in the process of bringing the laboratory into the undergraduate medical school; too far in our standardization of medicine, until we really are in some danger.

" . . . We have gorged the medical curriculum. There has been an enormous growth of medical knowledge and with it a marked increase in the time requirement of the medical curriculum. There has been an increase in the time of premedical preparation, and also constant acquisition of an increased number of professorships and specialists within different departments, each one crowding in until in one of the oldest medical schools in this country there is required 5967 curriculum hours in the four-year course. Think of the absurd position in which the medical student is placed. He is like a young bluejay who sits with his mouth open for something to be poured in. With 5967 hours of work, think of the ingestion; think of the digestion required; in some in regurgitation lies his only safety.

" . . . There is no one so charitable as the physician, and no one more foolish in his charity. He is still in the state of handing out quarters to beggars. It does not help the recipient fundamentally, and it does not help the community, but he does it out of the goodness of his heart. Sometimes it is the wise way to do, but usually not.

" . . . The greatest mistake the doctor can make is not to put his hands on the patient. The laboratory is for service and not to stand between the doctor and his patient. Human sympathy is not developed and faith is not generated by studies of the urine and sputum. The doctor must make a real and thorough physical examination."

Nevada State Medical Association

Our next annual Nevada State Medical Association meeting is to be held at Bowers Mansion, Friday and Saturday, September 12 and 13. And on Sunday the 14th, we are to take an automobile or airplane ride to Lake Tahoe or some other nearby famous, beautiful and interesting place or places. Saturday, beginning about 8 p. m., we will have a cabaret dance at Bowers Mansion, twenty miles south of Reno, on the highway to Carson City. Ample transportation from the Golden Hotel or the M. D.'s offices in Reno will be provided.

This is to be our best year in attendance and program. If you fail to come, you know you will be sorry. If you come, you will always be glad for several reasons. It would strengthen our State and National organizations and be a local help to some physicians and their patients as well, if you who are not organized would form county or community medical societies composed of one or more counties. The fundamental essential qualifications for thorough organization are membership, scientific interest, and money.

We already have enough papers offered to keep us busy both days, Friday and Saturday, the 13th and 14th.

Usually we have had offers of papers galore a few weeks before our meeting when too late to accept the offers. This year we are early in completing our list, so the program is finished unless someone notifies us he cannot come. However, we might squeeze in a clinical case or two during program hours. And those who have offered papers are urged to present clinical cases during their alloted time.

On the night of our business meeting (Friday at the Chamber of Commerce Hall, in Reno), we will have a reel of movies showing something of value and interest from a noted surgeon from Illinois.

Governor Scrugham has appointed the following people for the Board of the Child Welfare Division of the State Board of Health: Horace J. Brown, M. D., Reno; A. J. Hood, M. D., Reno; Mrs. W. A. Shockley, Reno; Mrs. Frank E. Humphrey, Reno; and Mrs. Sarah George, Sparks. This department functions under the Sheppard-Towner Act.

The Military Affairs Committee is maturing rapidly. The Government wants all who are eligible to join the Reserve Corps. Our State president is re-enlisting, although years ago he swore off.

The Surgeon-General has sent us a list of seven Nevada M. D.'s who are now members of the Medical Officers Reserve Corps. He is very anxious to secure membership in the Reserve Corps from all eligible M. D.'s in our State. If you want an application blank, let your secretary know and it will be mailed.

If your dues are not paid before April 1, you will be reported to the A. M. A. as a non-member.

M. H. Crocker has moved from Winnemucca to Oakland, Calif., with offices in the Hutchinson building.

Washoe County Medical Society (reported by Vinton A. Muller, secretary)—A regular meeting of the Washoe County Medical Society was held at the Commercial Club, Reno, Nev., on Tuesday evening, March 11, with an attendance of over fifty members. President R. H. Richardson presided at the meeting. The Society was honored with the presence of Howard C. Naffziger, clinical professor of neurological surgery at the University of California, who presented to the Society two very interesting papers. The first paper explained in detail the results obtained by ventriculography, and was illustrated with lantern slides. Following this, Naffziger presented a motion picture reel of peripheral nerve injuries among the war veterans treated at the Letterman General Hospital. All other business was dispensed with except the voting on an amendment to the Constitution and By-Laws, providing that our regular meeting night be changed from the first Tuesday of each month to the second Tuesday of each month, which was carried.

The applications for membership from Alice Thompson, Reno, and W. H. Riley, Gold Hill, were voted upon and both elected to membership. The applications of Ira J. Sellers and Frank L. Barrows, both of Reno, were submitted to be voted upon at the next meeting.

A letter from Mrs. George McKenzie, expressing appreciation for the floral offering and words of sympathy sent by the Society, following George McKenzie's death, was read.

Medicine and Physicians in Europe — "It is customary in France for the different faculties to take turns in delivering the address at the reopening exercises of the university each year. This year at the University of Strasbourg, the honor fell to the medical faculty, and Prof. G. Weiss, dean, was selected to give the address," writes the Paris correspondent of the Journal of the American Medical Association. "He took as his subject, 'Medicine and Physicians.' He spoke first of popular misconceptions in regard to medicine and the peculiar opinions that one frequently hears expressed about physicians. Speaking then of patients, Weiss expressed astonishment over the frequent lack of confidence in the men who have devoted their lives to acquiring the knowledge of their predecessors and to developing new knowledge in the field of medicine, and the trust that is placed in ignorant charlatans, whose influence is based on idle gossip, on man's love for the mysterious, and on his feeling of contempt for a man who frankly admits that there is no absolute certainty that he can prevent a mortal from dying. To judge from the conversations one hears on street-cars and trains, one might suppose that everybody was versed in medicine except the physician. The public is at times fascinated by the empiricist, who claims to have secret remedies for all diseases, in spite of his clumsiness and often absurdity. The remarkable thing is the tenacity of his faith, which persists in spite of the occurrence of disappointments and accidents. Every day our clinics are thronged with unfortunate men and women whose condition is hopeless because some charlatan promised to cure them at a time when the disease was still amenable to treatment, and keeps them from the hospital until the condition is hopeless; he then sends them only to avoid being held responsible for his misdeeds. The credulity of the public is such that some physicians —the apaches of our profession—actually conceal their doctor's title and carry on what appears to be an illegal practice, and beg the police not to divulge the fact that they hold a medical diploma, for fear they will lose some of their clients who are destitute of sense."

Metabolic Mechanism in Beriberi — William D. Fleming (The Philippine Journal of Science, November, 1923) says, in concluding his research upon this subject:

1. In a series of beriberi patients the basal metabolic rate was found to be the same as in normal controls. The respiratory quotients were normal. With the percentages of heat obtained from the combustion of protein, of fat, and of carbohydrate, they point to a normal utilization of the food eaten. No evidence of the high carbohydrate intake as a disturbing factor was found.

2. Blood-sugar values were against the high carbohydrate intake causing a "diabetic tendency."

3. No evidence was found of damage to the excretory power of the kidney in beriberi, either in patients with oedema or in those without this symptom.

BOOK REVIEWS

Pediatrics. By various authors. Edited by Isaac A. Abt. Vols. 1 and 2. Illustrated. Philadelphia and London: W. B. Saunders Company. 1923.

The publication of the first two volumes of Abt's "Pediatrics," the first American system since Keating's Encyclopedia (1889), is a medical event of the first importance. If the promise of the first two volumes is carried out in the remaining six, there can be no doubt that Abt's "Pediatrics" will fill the need better than any similar work in English.

Of the many excellent monographs, only a few can be mentioned here. Garrison s History of Pediatrics is the most complete thing of its kind with which the reviewer is familiar, embodying a wealth of interesting material on the hygiene, pathology, and therapeutics of childhood from the earliest times to the present day, and a very complete bibliography which will be of great value to those who wish to review special phases of the history of medicine.

The review of predisposition and heredity by Little of Cold Springs Harbor presents in detail the present-day knowledge of a subject which is fundamental to an understanding of physical and mental development, and which, unfortunately, is not always directly accessible to study and appraisal in the current medical literature.

To the medical man wishing to acquaint himself with the many important differences between the anatomy of childhood and that of adult life, Scammon's chapter will be most useful. The subject is presented with the greatest thoroughness, but is so arranged as to make reference easy.

The chapter by Murlin on Metabolism is, likewise, an excellent compend of knowledge on a subject to which so much fruitful research in modern times has been devoted. Robertson presents his studies and views on the principles of growth and development, elaborating his well-known conception and formulation of growth as an autocatalytic reaction. McClendon gives a brief chapter on the relation of physical chemistry to the physiology of childhood, and there are three articles on the hygiene of the home, of the school age, and of infants in general.

In the second volume, Bolt presents much interesting material on infant mortality; Levinson describes the examination and characteristics of the cerebrospinal fluid in health and disease without, it seems to us, quite exhausting the subject. Rodda has a chapter on Roentgenology, with special emphasis on fluoroscopy, giving many illustrations. The chapter on peculiarities of disease in childhood could well be omitted. DeBuys reviews prophylaxis and treatment, with good illustrations of technical procedures. The chapter on heliotherapy is largely a resumé of Rollier's work. Pearce's section on diseases of the new-born will be found valuable for reference, and Julius Hess' chapter on premature infants is excellent. One of the best articles in the second volume is Heineman's "Chemistry and Biology of Milk," in which practically all the knowledge on this subject that is likely to be of value to the medical man is presented. It is fortunate that Sedgwick lived to complete his article on breast-feeding and nutrition, giving the results of his study and experience of a subject to which he had devoted so large a part of his life, with such fruitful results. The medical world has been waiting a long time for an exposition of the subject of artificial feeding which will be correct, authoritative, complete, and practically useful. It cannot, unfortunately, be said of Brennemann's discourse on the subject—in spite of the great amount of useful knowledge which it contains—that it fills the requirement.

The introduction of insulin has caused a complete reorientation of the treatment and prognosis of diabetes. The paragraphs on this subject in Strause's chapter on diabetes have apparently been introduced since the preparation of the original manuscript, and insulin is accordingly not given quite its proper emphasis. In other respects the chapter is an excellent one. The chapters on diabetes insipidus, sea-sickness, beri-beri, obesity, and pellagra are adequate. That on acidosis, by Howland and Marriott, is admirable. Alfred Hess covers scurvy and rickets authoritatively, in two particularly well-written papers. Wesson has a careful description, with an excellent colored plate, of acrodynia.

In general, it seems to us a pity that the loose-leaf style of publication was not adopted for this monumental work. In fixed binding it will be long before plates can be changed and a new edition published. In another edition a few of the chapters will undoubtedly be omitted, while many should be changed either to eliminate duplication of subject matter in different chapters on closely related subjects, or to admit new discoveries as they are made, or to alter opinions no longer tenable. Medical progress is so rapid that unaltered texts cannot have authoritative value or reasonable exhaustiveness for many years. We wish, however, to reiterate that there is at present no other work in English on pediatrics which has the scope or completeness of Abt's "Pediatrics."

H. K. F.

Lectures on Endocrinology. By Walter Timme. 123 pages. 27 illustrations. New York: Paul Hoeber. 1924. Price, $1.50.

A good, short review of clinical endocrinology, reprinted from the Neurological Bulletin.

The author emphasizes the interrelationship of the various endocrine glands. As in all works on endocrinology, there is much theory based upon what seems a shaky foundation. A more comprehensive bibliography would be useful. L. E.

A Manual of Clinical Diagnosis by Means of Laboratory Methods. By Charles E. Simon. Tenth edition. 1125 pages. Illustrated. Philadelphia and New York: Lea & Febiger. 1922. Price, $9.

Simon is the pioneer author on clinical pathology in this country, and the tenth edition of this standard work hardly needs comment.

The previous form, in dividing the book into a part on laboratory methods and a part on findings associated with various diseases and morbid conditions, is followed.

The entire field of laboratory diagnosis is thoroughly covered. Blood chemistry methods are standard, and the chapters on blood and stool parasitology are especially noteworthy. In serology, the author gives only his own and Noguchi's Wassermann methods. It is regretted that other and superior methods, especially that of Kolmer, are not included.

Gastric and duodenal content examinations are presented in detail together with Lyon's bile studies.

While the book has grown considerably in size, it it gratifying to note a gradual deletion of obsolete and unsatisfactory methods. E. A. V.

A Treatise on the Diseases and Injuries of the Rectum, Anus, and Pelvic Colon. By J. Rawson Pennington. Illustrated. Philadelphia: P. Blakiston's Son & Co. 1923.

It is a pleasure to review a volume on diseases and injuries of the rectum, anus, and pelvic colon that is not merely a reiteration of what has been better said before, but a work that is a real addition to proctologic literature. It is the first American book that approaches the lofty standard set by Tuttle eighteen years ago. The subject matter makes easy and entertaining reading, a short history of proctology introducing the volume and a brief historical sketch introducing each chapter, thereby lending interest to what is ordinarily a rather dry subject.

The author has expended much labor and energy in collecting and sifting all the literature on rectal diseases up to the present time. The various subjects

are all dealt with in masterly fashion by one experienced in what he writes.

As a frontispiece, the author presents an original map of anal and rectal diseases, a bird's-eye view, as it were, of the entire field. It shows at a glance those affections that arise from the anal region and those that arise from the rectal region, and will be very useful for purposes of instruction. Pennington is the first author who explains so that all can understand, the difference between internal and external hemorrhoids.

The chapters on anatomy are among the best that have been incorporated in any proctology. The chapters on injuries of and foreign bodies in the rectum make very interesting reading, particularly the latter, which mentions some astonishing articles that have been inserted into the human fundament—merely to mention one, a Rhine wine bottle, quart size.

Under neuralgia and pruritus are two chapters, short, but full of information.

Under hemorrhoids, the author gives all the time-honored methods of treatment, only to reject them in favor of his open method, which consists in cutting away the internal pile first and catching the bleeding vessels afterward. While this operation may be very satisfactory in Pennington's hands, it is bound to be very bloody when done by those less experienced, where the best rule to follow is: first tie, then cut, as in the ligature operation, which at present seems to have the preference with the majority of rectal surgeons. Whether the open operation will make a place for itself, time will tell.

Finally, there are chapters devoted exclusively to technic, where the various operations are mentioned and described, those preferred by the author being given more in detail.

While there are points where we may differ from the author, we do not hesitate to affirm that Pennington's work is by far the best that we have had the pleasure of reading in many a year, and is a decided addition to medical literature. A. N.

Montaigne and Medicine. Being the essayist's comments on contemporary physic and physicians; his thoughts on many material matters relating to life and death; an account of his bodily ailments and peculiarities and of his travels in search of health. By James Spottiswoode Taylor. New York: Paul B. Hoeber. 1921. Price, $3.75.

As its title indicates, this book gives an account of Montaigne's observations and ideas on the subjects of disease, remedies, physicians. He draws his opinions from his own experience, as he was for many years a sufferer from stone in the kidney and bladder. A considerable portion of the book is taken up with an account of Montaigne's travels from watering-place to watering-place, where he went in search of relief. The reviewer found this book a little difficult to read, as he continually had to jump from one style of writing to another. For example, there would be a few observations by the author, then a quotation from Montaigne, and then a footnote of considerable length, a quotation from some other author. In this way, the continuity of the subject matter is broken, and requires the closest attention on the part of the reader to follow. The book is well printed on good paper, and the illustrations are clear and interesting. A. L. F.

Exercise in Education and Medicine. By R. Tait McKenzie. Third edition. 601 pages. Illustrated. Philadelphia: W. B. Saunders Company. 1923. Price, $5.

This edition gives the reader comprehensive and reliable information presented in a scientific manner concerning an essential feature in medical practice. As a general thing, in the treatment of disease and disabling conditions, not sufficient attention is given by the medical profession to the many available physical measures that might be applicable in restoring or improving bodily function. Especially is this true in cardiovascular conditions, and McKenzie has given us much valuable knowledge that can be utilized for better treatment. Greater emphasis, however, should have been made on the essential importance of medical supervision or exercise in education, and exercise in medicine should have been published in separate volumes. In so doing, there would be less probability for the non-medical adviser to venture in a field necessarily controlled by the physician. The injudicious "Exercise Treatment," which is universally observed, has done much to place disfavor on indicated physical therapeutics. H. L. L.

BOOKS RECEIVED

Operative Surgery: Covering the operative technic involved in the operations of general and special surgery. By Warren Stone Bickham, M. D., F. A. C. S., Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York; Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original, and separate Desk Index Volume. Volume 3 containing 1001 pages with 1249 illustrations. Philadelphia and London: W. B. Saunders Company. 1924. Cloth, $10 per volume. Sold by subscription only. Index Volume free.

Text-book of Psychiatry. By Prof. Dr. Eugen Bleuler, Director of the Psychiatric Clinic, Zurich. Authorized English Edition by A. A. Brill, M. D., Lecturer on Psychoanalysis and Abnormal Psychology, New York University. New York: The Macmillan Company. 1924.

Louis Pasteur. By S. F. Holmes, Ph. D., Professor of Zoology in the University of California. With Illustrations. New York: Harcourt, Brace & Company.

Blood Pressure: Cause, Effect, and Remedy. By Lewellys F. Barker, M. D., Professor Emeritus of Medicine in Johns Hopkins University, and Norman B. Cole, M. D., Assistant in Clinical Medicine in Johns Hopkins University. D. Appleton and Company, New York. London. 1924.

A Physician's Manual of Vaccine Therapy. By G. H. Sherman, M. D., Press of the Bacteriological Laboratories, G. H. Sherman, M. D., Detroit.

The Biology of the Internal Secretions: The Endocrine Factor in Development, in Subnormalities, in Neoplasms and Malignancy, in Nervous and Mental Diseases, and in Heredity. By Francis X. Dercum, M. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College. Philadelphia and London; W. B. Saunders Company. 1924.

The New Science of Radiendocrinology in Its Relation to Rejuvenation, Based on the Radiation Technique of Steinach of Vienna. By Herman H. Rubin, M. D. Published by Medical Science Publishing Company, New York. 1923.

Duties of Public Officials in Protection Against Quackery — When all public health officials realize that the scope of their duty lies in protecting the folks of their community from the wiles of the incompetent, irregular and the patent medicine concerns, as well as enforcing quarantine and sanitary regulations, then and then only will there be marked progress in present-day public health programs.— Editorial Ohio State Medical Journal, March, 1924.

Obituary

MEMORIAL
STEPHEN WYTHE
1874-1923

Classmate—Friend—Scholar

By Charles A. Dukes

As Christmas was passing, and Stephen was sitting by the fire with his family, he fell asleep. Sleep has been defined as preparation for greater work. Though we must let him sleep for this greater work, we will miss our Fellow, classmate, and friend.

The medical history of Alameda County and the State of California are closely linked with that of Stephen Wythe. His grandfather, J. H. Wythe, was the first professor of Bacteriology of Cooper Medical College, and belonged to that group of teachers composed of Lane, Cushing, and others who made medical history for California and the world. His father, also a graduate of medicine and a teacher, died when Stephen was very young.

It was in our student days at Cooper that I began to know the sterling qualities and wonderful character of Stephen, and, after his graduation, those of us who were closest to him knew of his love for his widowed mother and his wonderful care of his grandfather in his invalid days of old age; then his splendid years as husband and father and his example of fine manhood and a Christian gentleman. His service to his country during the Spanish-American War was in the navy, where he made an enviable record. During recent years he has practiced the specialty of eye, ear, nose and throat, and he will be missed by his large number of private patients, his clinic patients at the Health Center, and at the Merritt Hospital, where he was a member of the staff and gave so generously of his talents.

No man was more universally beloved and respected than Stephen Wythe, and no man more deserving.

The Alameda County Medical Society has lost a valued member, and those of us who have been near to him in his busy and active career will miss a scholar of rare qualities, always ready to help the sick and suffering with his advice.

We extend to his family our sympathies in this hour of sorrow.

HEALTH SERVICE ISSUES ANNUAL REPORT

While stressing the need for new Marine Hospitals and the difficulty of securing medical officers for the regular corps of the Public Health Service, the Surgeon-General states in his annual report that sanitary reports indicate that general health conditions throughout the United States have continued as satisfactory as in recent years. An increasing interest in public health improvement has been noted. In these reports, year after year, it is interesting to note the shifting of emphasis, which is due in part to progress in medical science." The present report for 1923 shows that the plague work, which has heretofore been the subject of much consideration in the annual reports has, temporarily at least, practically faded from the picture. Both human and rodent plague appears to have been eradicated in the United States except for infected ground squirrels in California and all anti-plague measures in other States have been discontinued.

We are warned, however, that, owing to the difficulty of completely exterminating rats on board vessels and the present widespread dissemination of plague, geographically, there is constant danger of the introduction of this disease at all seaports engaged in foreign trade.

While typhus, plague, and yellow fever have been reported from countries with which the United States has been in constant communication, because of the enforcement of international sanitary agreements and the maintenance of national quarantine systems, no cases of major, quarantinable diseases have gained access to this country within the year covered by the report.

Twenty-five hospitals are now operated by the Public Health Service, including the National Leprosarium at Carville, La. Great advancement in the hospital standards of the Public Health Service is noted. At the same time, there has been a reduction in the per diem cost.

DEATHS

Benners, James Wemyss. Died at San Bernardino, February 10, 1924, age 63. Graduate of the University of Louisville Medical Department, 1893. Licensed in California in 1915. He was a member of the San Bernardino County Medical Society, the California Medical Association, and the American Medical Association.

Bloch, Herbert Isaac. Died at San Francisco, March 4, 1924, age 50. Graduate of Cooper Medical College, San Francisco, 1894. He was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Easterday, George Spalatin. Died at Watsonville, March 10, 1924. Graduate of the Eclectic Medical College of Cincinnati, 1878. Licensed in California in 1900. He was a member of the Santa Cruz County Medical Society, the California Medical Association, and the American Medical Association.

Hays, Wilfred Bertram. Died at San Francisco, March 5, 1924, age 52. Graduate of the University of California Medical School, 1906. He was a member of the Sonoma County Medical Society, the California Medical Association, and the American Medical Association.

Thompson, J. Goodwin. Died at Oakland, February 19, 1924, age 59. Graduate of the University of California Medical School, 1894. He was a member of the Alameda County Medical Society, the California Medical Association, and the American Medical Association.

Hospital Service in the United States—According to the Council on Medical Education and Hospitals of the A. M. A., there are now 830 hospitals which have a total capacity of 755,722 beds which are occupied on the average by 553,133 patients. Of the 6830 hospitals, there are 1324 which have over 100 beds each, 1072 hospitals have between 50 and 100 beds each, and 1632 hospitals have between 25 and 50 beds each. This makes a total of 4028 hospitals or more than twenty-five beds each with a total capacity of 715,729 beds, which are occupied on the average by 531,024 patients. There are 2112 hospitals that have from ten to twenty-five beds each, with a total capacity of 36,514 beds occupied on the average by 20,269 patients, and 619 hospitals that have less than ten beds each, with a total capacity of 3479 beds, which are occupied on the average by 1846 patients.

Altogether there are 1736 hospitals under Government control, followed by 465 county hospitals, 415 city hospitals, 220 hospitals under Federal control, and 35 under joint city and county control.

The capacity of hospitals under governmental control is 471,948 beds, or 62.4 per cent of the entire bed capacity in the United States. Furthermore, the average number of beds occupied by governmental hospitals is 374,754, or 67.8 per cent of the total average number of beds occupied in all hospitals. It must be remembered, however, that Federal, State, and County hospitals include most of the institutions which provide largely or entirely for the custodial care of incurable patients, or those having chronic diseases. Many of the patients in these hospitals also are either indigent, or are employes, or otherwise beneficiaries of the Government. The large majority of patients having acute diseases are cared for in the non-governmental hospitals.

Of the 3066 counties in the United States, there are only 361 that maintain hospitals at county expense. These 361 counties are supporting altogether 465 hospitals, with a total of 46,571 beds which, on the average, are occupied by 32,789 patients. California has 56, the largest number of hospitals controlled by counties, followed by New York with 50.

Of the 6830 hospitals of the United States, 5094, or 74.6 per cent, are controlled by non-governmental agencies. These hospitals have only 283,774 beds, or 37.6 per cent of the total bed capacity.

The largest proportion of hospitals, 2196, or 32.2 per cent, are those maintained or controlled by independent associations or corporations not for profit, non-governmental, non-fraternal, and non-sectarian. These hospitals have a total of 149,341 beds, of which 95,674, or 64.1 per cent, are constantly occupied.

The next largest group of non-governmental hospitals is the 1762 maintained or controlled by individuals and partnerships. This group has altogether 45,719 beds, of which 27,393 are constantly occupied. These private institutions are frequently the only hospitals in the community, and are sometimes the only institutions that survive. There are 348 counties in the United States in which there would be no hospitals, excepting those which are private property of physicians and nurses.

The third largest group, but the second largest in bed capacity, is that of hospitals under Church control. Counting the hospitals that are under direct control of the Church, as well as those that bear the name and have some certain degree of connection, there are 893, with a total capacity of 77,941 beds, which care for an average of 49,046 patients.

There are now 97 hospitals financed or controlled by fraternal organizations which have a total capacity of 5043 beds.

In 1923, of the 3066 counties in the United States, 1521, or 49.6 per cent, had some kind of a hospital, as compared with 44 per cent (of the 3027 counties), in 1920.—Journal of American Medical Association, January 12, 1924.

What is S. M. A.?

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S. M. A. requires no modification or change for normal infants. As the infant grows older the quantity is merely increased.

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CALIFORNIA
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Official Organ of the California, Nevada and Utah Medical Associations

ANNUAL SESSIONS

⁂

California Medical Association

Los Angeles, May 12, 13, 14, 15

The meeting will be held within a few days after you receive this copy of your publication. Take it with you, read it on the way to the meeting, because you will find many subjects discussed in this number that will also be subjects of discussion by the House of Delegates and by members wherever they gather in Los Angeles.

⁂

Utah Medical Association

Logan, Utah, June 19, 20, 21

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Nevada Medical Association

Reno, Nevada, September 12, 13

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American Medical Association

Chicago, June 9-13, 1924

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(*Continuing the California State Journal of Medicine*)

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VOL. XXII MAY, 1924 No. 5

ORIGINAL ARTICLES

FRACTURES OF THE SPINAL COLUMN *

A REPORT OF FIFTY-TWO CASES

By E. W. CLEARY, M. D., San Francisco

Neither the incidence of fractures of the spinal column nor the difficulties of diagnosis are sufficiently appreciated. The pertinence of this statement is justified by a study of the fifty-two cases which forms the basis of this paper. Twenty-six, or 50 per cent of them came undiagnosed to the orthopedic surgeon, after intervals ranging from five weeks to fifteen years from the date of fracture. Five of the twenty-six undiagnosed lesions were from one to fifteen years old. The average age of the injury in the remaining twenty-one was three and one-half months. Fourteen of the undiagnosed fractures were in the region recognized as most susceptible to fracture, namely, the lower dorsal and upper lumbar region. Three were fractures of the twelfth dorsal, eight were of the first lumbar, two were of the sixth cervical vertebra.

Reference to the tables show that twenty-five out of fifty-two fractures were the result of falls from a height ranging from six to seventy feet. Relatively short falls were responsible for some of the severe fractures. Eighteen injuries were caused by heavy masses falling upon the patient and crushing him forward. Several of these resulted in so-called "jack-knifing" of the patient, that is to say, forcing the spine into such acute flexion as to cause it to buckle. Four patients were struck upon the shoulders or upper part of the back by heavy objects in such a way that the impact, rather than the weight of the mass, caused the injury. In four instances, low lumbar fractures were associated with heavy lifting and twisting strains.

Four patients gave clear histories of previous injuries, at least three of which were old undiagnosed fractures, more or less completely recovered from, and discovered when a recent more trivial injury attracted attention to the region of previous fracture.

DIAGNOSIS

Most missed diagnoses may be credited to one or more of the following causes:

1. An erroneous conception that every broken neck or broken back presents symptoms and physical signs so unmistakable as to practically diagnose itself.
2. Inadequate x-ray examination.
3. Concentration of attention upon some more apparent complicating lesion.
4. Failure to get a clear history of the nature and violence of the force or forces which the accident brought to bear upon the patient's spine.
5. Failure to make a thorough physical examination.

Many non-medical members of the public believe that a broken neck or a broken back means either instant death or, at least, paralysis. Careless physical examination lends support to this popular fallacy.

In my series of patients, less than 30 per cent were correctly diagnosed early.

A clear history of the circumstances attending the injury is first aid to a correct diagnosis. Falls from a height and crushing into forward flexion by impact of force upon the head, neck or shoulders are so frequently the cause of compression fractures of the vertebral bodies that it is wise, with such a history, to assume that a fracture has occurred until or unless such a lesion has been ruled out by physical and roentgen ray examination.

Compression fractures rarely, if ever, occur as the result of lifting strains. A history of a previous fall or a crushing injury, with a resulting fracture, which may not have been diagnosed at the time, will explain many of the vertebral distortions noted after sudden disability from lifting strains. The lifting strain, then, has simply broken up, in greater or lesser degree, the repair after the old fracture. Pos-

*Presented to the Section on Industrial Medicine and Surgery at the Fifty-second Annual Session of the California Medical Association, San Francisco.

sible previous injury is one essential reason for taking a complete history.

Thorough examination would reduce the large number of undiagnosed spine fractures to a relatively insignificant minimum. In examining an injured patient who has no paralysis or obvious deformity, the physician should ascertain whether or not the patient can use his back normally. If he is able to stand, he should be examined stripped and standing. Deformities, limitations in motion, muscle spasm, and discolorations of the skin are all more easily noted in the standing position. If, without other conspicuous reason, the patient is unable to stand, this fact, in itself, should arouse a strong suspicion of possible spine fracture. Guarded motions of the body as a whole and rigidity of the injured and adjacent segments are characteristic of spinal fractures. Marked limitation in range of motion of the injured region of the spine is the rule in recent fractures.

If, as is rarely the case, the patient manifests no marked disability to ordinary movements, the attempt to lift even a relatively small weight with the arms, will, invariably, disclose the disability and result in localized pain and muscle spasm in the area of the lesion if it is below the seventh cervical, frequently even in the cervical segments. Downward pressure upon the head or a very light tap upon the head with the palm of the hand almost always causes severe pain in cervical fractures.

Manual examination frequently reveals a board-like spasm of the erector spinae muscles. Sometimes, however, the spasm is so slight that the vertebral spines may be palpated and even an abnormal mobility of the spine, at the level of injury, detected. Manipulation usually causes pain and muscle spasm sufficient to push the palpating fingers off the tips of the spines.

Failure to get a positive response from these tests must not be accepted as conclusive evidence that no fracture exists. In one instance, a relatively severe lower dorsal fracture, complicated by a fractured extremity which compelled recumbency, was almost overlooked because there was no marked muscle spasm and no tenderness manifest on light palpation or percussion.

In Case No. 48, recumbency was necessitated on account of paralysis of the left lower extremity, and the history indicated spinal fracture, yet muscle spasm was not at all marked and no tenderness was manifested by light palpation or percussion. A relatively light tap with the closed hand, over the sole of the heel of the extended leg, caused sharp pain at the point of fracture and immediate marked muscle spasm. Local pain and muscle spasm were also elicited by a light blow with the closed fist over the suspected area.

Where there is good reason to suspect a spinal fracture, I no longer consider clinical examination negative after less vigorous tests until I have gotten negative results from a definite blow upon the heel of the extended leg or with the closed hand upon the back over the suspected area. Please note that I do not recommend these tests or employ them except where less strenuous tests have been negative.

Reliance upon the negative evidence of inadequate x-rays has been responsible for many missed diagnoses. Anything less than clear stereo, anteroposterior negatives and a single lateral, centered on every suspected area is an inadequate x-ray examination upon which to make a negative diagnosis.

While taking a history, and considering x-ray evidence, the possibility of a previous fracture should always be in mind. Patient No. 33 denied any possibility of a previous injury. Excellent x-ray negatives, however, gave unquestionable evidence of a fracture older than his recent injury. Confronted with this fact, he admitted a fall from a height twelve years previous to his recent injury, and admitted two years of total disability as the result of spinal fracture at that time. In another instance, the recent accident had not been characterized by a sufficient degree of violence to account for the severe compression fracture present. I asked the patient, "When were you hurt the first time?" He then confessed a severe injury over a year antedating the recent accident. The first injury, and not the second, was the cause of the fracture.

TREATMENT

Rest, in the recumbent position, the first essential in treatment of a fractured spine, is usually enforced by necessity, whether the diagnosis has been made or not. Unfortunately, rest in bed is not, as a rule, all the treatment required and even rest and recumbency are likely to be terminated too soon.

Occasionally, as in patient No. 42, a remarkable degree of recovery takes place, after apparently severe spinal fracture, where no other treatment than rest in bed, over a few weeks, is given. This is exceptional. There was no evidence, either clinical or roentgenographic, that any considerable callus developed. Recovery apparently resulted through adaptation of the adjacent structures to the abnormal positions and stresses occasioned by change in shape of the compressed vertebral body, without fusion of any articulations, either intervertebral or zygapophysial. Such recovery, without fusion of the injured to adjacent segments, is rare except in the cervical spine, where fusion is the exception.

Secure and early fusion of the injured segment or segments to the immediately adjacent segments above and below is the result to be sought after the average severe vertebral fracture.

Rest in a favorable position, with immobilization sufficiently complete and prolonged to facilitate early and perfect fusion, is essential. This holds good whether fusion is expected by callus from the trauma or by fusion operation.

Head traction, special fracture beds, collars, splints, plaster-shells, jackets, and various other devices are used to secure immobilization of injured spines. The particular device used depends largely upon the choice of the surgeon. In most cervical fractures, I prefer a plaster paris dressing, including the shoulders and coming high enough on the sides and back of the head to secure perfect immobilization. To completely enclose the head in plaster, leaving only an aperture for the face, adds unnecessarily to the patient's discomfort. After the first four to six weeks, the plaster may be replaced by the Thomas leather collar. An initial period of

traction from the Sayre head-sling is necessary in some severe cervical fractures.

Eight to twelve weeks is the shortest time which any fracture of the spine should be kept immobilized. After this interval, the need for and degree of further immobilization must be determined by the reactions of the individual patient. Return of definite local pain and muscle spasm shortly after removal of immobilizing appliance, indicates the need for further prolonging the period of fixation.

If a case of severe fracture is not a good surgical risk, or, for other good reason, the plan is to immobilize until fusion occurs without operation, then six to eight months of brace-wearing is usually necessary to secure a reasonably strong fusion. It is often eighteen months or two years before the patient is able to work. As a rule, the convalescence in this type of patient can be shortened a year or more and a better final result secured by a good fusion operation. The purpose of fusion operation is to accomplish, with rapidity and precision, fixation of the injured segment or segments to the contiguous segments above and below. A thorough fusion operation, after Hibbs' method, enormously increases the tendency for the laying down of a bony bridge over the area where that bridge will make for the greatest strength and, at the same time, be least likely to encroach upon nerve roots.

Albee's operation, to secure fusion by inserting a tibial graft between the halves of the split spinous processes of the segments to be bridged, has the advantage of being a relatively quick and simple procedure, but in my opinion it does not, in the average case, give the assurance of a strong fusion afforded by the Hibbs operation.

In the Albee operation, two factors only operate to complete fusion, (1) the tibial graft making contact with three or more spinous process, (2) the outpouring of callus about the bodies of the vertebrae as the result of injury.

In the Hibbs operation, stripping of the cartilages from the zygapophysial articulating surfaces is a very important factor. This operation, in fact, makes for a strong fusion by establishing six different lines of bony contact, which may be summed up as follows:

Arthrodesis of the two series of zygapophysial articulations	2
Overlapping series of laminal shavings on either side	2
Central bridge of spinous processes	1
Contact of denuded bony surfaces with overlying periosteal tube	1
Tendency to formation of callus as the result of injury (present whether or not operation is done)	1
	7

Specimens, secured by Hibbs in several instances where death has occurred subsequent to convalescence after his operation, show an uninterrupted bony bridge extending practically from the zygapophysial articulations on one side to those upon the other.

Although I favor the Hibbs operation in the average case, in lumbar fractures and in patients where a preceding laminectomy had to be done, I have several times used a procedure which might be termed a modified Albee. In this operation, after splitting the spinous processes of the injured segment and the two contiguous segments, I drive the chisel laterally through the laminae on either side, out well across the zygapophysial articulations. Then, with an Albee saw, I cut two tibial grafts, each in cross-section, like a thick wedge and long enough to extend across the segments to be fused. These grafts I slip into place, with their thick edges toward the midline, under the lifted laminal shavings on either side. I drive the grafts out laterally until they lie directly across the series of zygapo-

(A) (B) (C) (D)

FIGURE I

(A) (B), Case No. 48—Fracture of first lumbar, after laminectomy and double graft fusion operation; (B) shows range of flexion.

(C) (D), Case No. 50—Fracture of first lumbar after Hibbs' fusion of twelfth dorsal, first and second lumbar, done because of continuing severe disability two years after injury.

(A) (B) (C)

FIGURE II

(A), Case No. 48 — Compression of first lumbar vertebra with total paralysis of left lower extremity and motor paralysis of right from knee down. (See Figure I, (A) and (B).) Paralysis recovered, except marked permanent atrophy and loss of function in both calf groups.

(B), Case No. 48—After double graft fusion. The area of laminectomy is still visible.

(C), Case No. 50—Lateral view taken two years after compression of first lumbar. Complete recovery after Hibbs' operation. (See Figure I, (C) and (D).)

physial articulations and bend the spinous shavings down over them, forcing fragments of the shavings between the grafts in the midline, so as to keep both grafts in their lateral positions. Over them I suture the soft tissues.

Figure III is a diagrammatic illustration of the grafts in position, in this instance bridging three sets of articulations, thus fusing together four vertebrae. This was the operation done on patient No. 48 (see tabulation). This man has had an apparently complete recovery of back function and no pain in his back since three months after operation. He is, however, incapacitated for hard labor, due to permanent paralysis of both calf groups. Figure I-b shows the degree of spinal flexion recovered, notwithstanding unquestioned fusion of four vertebral segments (twelfth dorsal, first, second and third lumbar). Paired grafts have been used by many other surgeons in spinal operations, notably by S. J. Hunkin of San Francisco. Gray has described a double tibial graft fusion, but it is possible that the technique of inserting grafts across the zygapophysial articulations after splitting of the articulating facets in the manner illustrated in Figures IV (A and B) is original with the author of this paper. A further report upon the results of this procedure will be made at a later date.

Figure I-d shows flexion recovered in patient No. 50, after a Hibbs fusion of first dorsal, first and second lumbar, in a case of severe compression of the first lumbar still disabled two years after injury.

It seems to me obvious, notwithstanding the recovery of a wide range of spinal flexion after fusion of four, or even of a greater number of segments, that a fusion operation should not lock up any more joints than are necessary to bridge the injured area. In the case of simple compression fracture of the body of a single vertebra, this result is accomplished by fusion of the fractured vertebra to the one immediately above and the one immediately below. This means locking up only two pairs of zygapophysial articulations. Additional lesions, such as fractures of laminae in adjacent segments (often not discovered until operation reveals them) may necessitate a further extension of the bridge. The shorter the extension of the fused area, either up or down the spine, the more secure, other factors being equal, will be the central area which is presumably the weakest point. This is but an instance of the physical principle, the longer the lever the greater effect of a force applied at its extremity.

The function of spinous processes as levers, through muscular and ligamentous attachments is important. The loss of this function, where a radical Hibbs operation is done, causes some additional difficulty in adaptation during convalescence. On this point, the Albee method scores a decided advantage. To obviate this disadvantage in the Hibbs operation, I frequently leave a portion of the spinous processes at either extremity of the fused area intact. I have already intimated that I consider the spinous process bridge a factor of relatively lesser importance in the success of the Hibbs operation.

Following a fusion operation, it is my practice to keep the patient in a plaster jacket, on a Bradford frame, seven to eight weeks. I then remove the jacket, take measurements for a modified Taylor brace, and keep the patient recumbent for ten days or two weeks while the brace is being prepared. The brace is then put on in recumbency and the patient begins sitting, standing, and walking for gradually increasing periods. As a rule, I do not permit the brace to be discarded during activity for at least four months. It is always removed during recumbency. The average patient returns to light employment eight months to one year after operation, if recovery is uncomplicated by other factors than the spinal lesion.

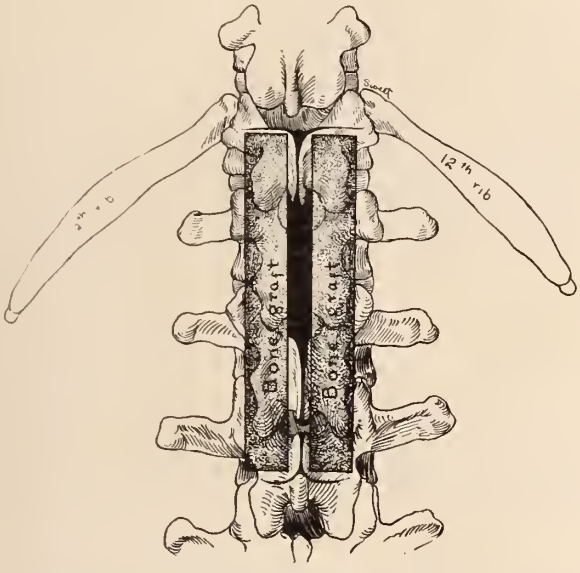

FIGURE III
Diagrammatic illustration showing position of tibial grafts in the double graft fusion operation.

During convalescence, we put spine-fracture patients through a carefully planned and graded course of physiotherapeutic exercises. The details of this plan of treatment are given in a paper on the "Physiotherapy of Back Injuries," not yet published. I am sure that such a physiotherapeutic course shortens the time and increases the degree of recovery.

PROGNOSIS

The prognosis in the average severe case of compression fracture of the spine is for a period of eight to twelve months, total disability, where thorough fusion operation is done early. Permanent potential weakness of the spine, such as to handicap the injured in undertaking heavy labor in the average of these cases amounts to 30 to 40 per cent disability. This weakness is manifest in a tendency to tire more easily and to get a backache after prolonged standing, rather than in an initial lowered capacity.

The prognosis, in the average case of severe compression fracture of the spine treated by prolonged rest, immobilization and support, without operation, is for eighteen months to two years of total disability. In the final result, permanent, potential weakness, following the non-operative course of treatment, is at least 10 per cent higher than in the average of cases operated early. Some patients, treated extensively by conservative means, have to come later to operation and, in these, the results are less sure and convalescence is longer.

In severe compression fractures, where neither operation nor adequate conservative treatment have been given, the prognosis is for continued total, or nearly total, disability, often with increasing pain and discomfort and, possibly, late development of paralytic symptoms. Operation in this type of case is worthwhile, but usually gives a relatively lesser degree of recovery even than operation after failure of conservative treatment. Rarely a case of definite compression fracture recovers without treatment other than a few weeks' rest in bed.

CONCLUSION

Fractures of the spinal column occur, with relative frequency, as the result of falls from a height, or of weights falling upon the head or shoulders. These fractures escape early diagnosis too often. The physical signs and symptoms of fractured spine are not as obvious as they are often considered to be. Care in history-taking, thorough physical and adequate x-ray examination would insure correct diagnosis in most cases.

Adequate fusion operation shortens convalescence and gives a higher degree of recovery than conservative treatment in the average patient. The Hibbs operation is, on the whole, more efficient than the Albee graft fusion. A special type of double tibial graft operation has been found advantageous in difficult cases of lumbar fracture. Carefully directed physiotherapy is an essential part of treatment. After thorough fusion by early operation, industrial patients return to employment in eight months to one year, with an average permanent disability rating measured by the standards of the rating department of the California Industrial Accident Commission of 30 to 40 per cent, or less. Similar patients, treated conservatively, take approximately twice as long to get back to work and show an average permanent disability rating of 40 to 50 per cent or more, measured by the same standards. Similar patients having no adequate treatment are likely to have indefinitely continuing total disability and may develop late paralytic symptoms. The result of later operations on such patients is an improvement,

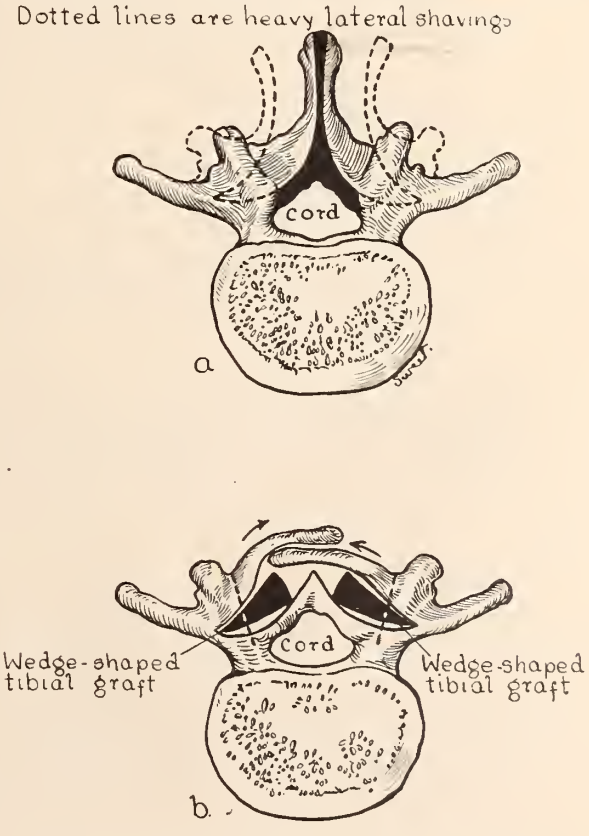

Figure IV
(A) (B)—Diagrammatic illustrations to show technique in double graft fusion—(A) the manner in which the spines, laminae and articulations are split; (B) the grafts placed and the shavings bent down over them.

Case	Age	Nature of Accident	Region Fracture	Nerve Symptoms and Signs	Other Complications	How Long Undiag.	Treatment	Degree of Recovery
1	53	Struck by falling mass	6 cerv.	None	None	7 months	Rest in bed	Complete
2	35	Fell 8-10 feet	6 cerv.	None	None	2 months	Rest in bed	Complete
3	46	Fell 20 feet	2 and 3 cerv.	None	None	Few hours	Rigid collar	Total disability
4	29	Auto collision	6 cerv.	None	None	5 weeks	Rest in bed	Complete
5	34	Fell 40 feet	6 and 7 cerv.	Permanent par. below level of lesion	None	Few hours	Rest in bed	Total disability
6	56	Fell 10 feet	5 cerv.	None	None	Few hours	Rest in bed; rigid collar	Partial, deg. undetermined
7	70	Fell 14 feet	6 and 7 dorsal	None	Refracture of old fracture	Few hours	Rest in bed	75% disability
8	50	Fell 8 feet	12 dorsal	None	None	5 weeks	Brace	Complete
9	48	Crushed in hyperflex.	12 dorsal	None	8 ribs fractured	Few hours	Rest in bed; cast; fusion oper.	25% disability
10	28	Crushed in hyperflex.	8 dorsal	Paraplegia	None	Few hours	Laminectomy	Died
11	70	Crushed in elevator	8 dorsal	None	None	2 months	Rest in bed	50% disability
12	51	Fell 18 feet	9-10-12 dorsal	None	3 ribs fractured	4 months	Rest; cast	Complete
13	57	Struck by falling mass	9 dorsal	None	None	2½ months	Rest in bed	75% disability
14	52	Struck by falling mass	7 dorsal	None	Ribs fractured; hyper. arthritis	5 months	Rest in bed	25% disability not yet stationary
15	41	Crushed by caving earth	11-12 dorsal	Transient paralysis	Head injuries; fract. rt. tibia and fibula; disloc. left acromion	9 months	Rest in bed	25% disability not yet stationary
16	38	Fell 20 feet	10 dorsal	None	None	4 months	Rest in bed	Complete
17	52	Crushed by wagon wheel	9 and 10 dorsal	None	6 ribs fractured	2½ months	Rest in bed	75% recovery
18	50	Fell 50 feet	1 lumbar	None	None	2 months	Rest in bed	86% disability rating; not yet stationary
19	67	Fell off truck	1 lumbar	None	None	2 months	Rest in bed	60% disabled
20	74	Struck by car	3 lumbar	None	Contusion; str. rt. sh. and rt. hip	11 months	Cast; brace; rest in bed	40% disability; estimated
21	20	Struck by falling tree	2 lumbar	Parapleg., transient	None	Few hours	Rest in bed	50% est. disability
22	43	Heavy lift and twist	4 lumbar art.	None	None	Few hours	Rest in bed	50% disability
23	39	Heavy lift and twist	5 lumbar	None	None	Few hours	Rest in bed	50% disabled
24	48	Fell 25 feet	3, 4, 5 lumbar	Paraplegia	None	Few hours	Hibbs fus. operation	50% disability
25	57	Fell 14 feet	1 lumbar	Paraplegia	Hyp. arth.		Rest in bed	Complete recovery
26	53	Crushed into hyperflex.		Par. rt. glut. and peroneals	None	Few hours		Not determined

27	70	Fell 15 feet	1 and 2 lumbar	None	None	Few hours	Cast and brace	Complete recovery
28	71	(Same patient) Thrown from car in railroad accident	Refracture	None	None	Few hours	Cast and brace	50% per. dis. est.
29	38	Fell 16 feet	11-12 dorsal	None	None		2 months rest in bed; Hibbs fus. operation	Not yet stationary
30	21	Crushed by falling timbers	1 lumbar	None	None		Rest in bed	50% disability est.
31	52	Crushed under auto	4 lumbar	None	None	3 years	Rest in bed	Complete recovery
32	32	Crushed under auto	1 lumbar	Partial blindness	Skull fractured	3 months	Rest in bed	Total disability
33	29	Fell from height	1 lumbar	None	None	Few hours	Rest in bed	Complete recovery after 2 years reported
34	41	(Same patient) Fell 8 feet	1 lumbar	(Questionable refract.)	None		No significant treatment	Very slight signs of disability 2 months after
35	40	Fell 40 feet	1 lumbar	Fract. femur, tib., fib., mand., clav.		14 years	Rest in bed	Complete, after 18 months reported
36	54	Strained back lifting heavy bale	1 lumbar (old) no new fract.		Hyper. arth.; cardio-renal disease	Few hours	Rest in bed	Unknown
37	45	Fell 6 feet	2 lumbar	None reported			Rest in bed	Unknown
38	22	Crushed in cave-in	5 lumbar	None reported		15 years	Rest in bed	Unknown
39	37	Lift. strain with twist	Old fracture	None reported				
40	71	Crushed by falling mass	2 lumbar	None	Hyper. arth.	4 months	Rest in bed	(Approximately) 60% disability
41	49	Fell 45 feet	3 and 4 lumbar and lamina 4th	None	Fract. 7, 8, 9 ribs, left	Few hours	Rest in bed	89% disability
42	41	Crushed by falling wall	1 lumbar	None	None	1 month	Rest in bed	Complete
43	41	Crushed by caving earth	1, 4, 5 lumbar	Trans. paraplegia	Disloc. 12 rib; fract. all lumbar trans. proc.	2½ months	Rest in bed	80% per. dis. estimated
44	38	Fell 70 feet in elevator	3 lumbar	None	Fract. both os calces	1 year	Rest in bed	75% per. dis.
45	56	Fell 20 feet	3 lumbar	Trans. paraplegia	None	Few hours	Rest in bed; cast; Hibbs fus. operation	61¾% rating
46	35	Fell 20 feet	11 dorsal	Girdle of hyperesthesia	None	1 month	Hibbs fus. operation	20% per dis.
47	26	Crushed by caving earth	3 lumbar	None	Cont. left hip, knee and ankle	2½ months	Hibbs fus. operation	27% est. rating
48	26	Fell 45 feet	1 lumbar	Trans. paraplegia; perm. paraplegia; calf groups	Infection G. U. tract	Few hours	Double graft fus. oper	Complete recovery back function
49	48	Fell 18 feet	3 lumbar	None	Arth. and lues		Hibbs fus. operation	Unfin. est. 60% disability
50	38	Crushed by falling mass	1 lumbar	Part bladder paral.	Infection G. U. tract	2 years	Hibbs fus. operation	Complete recovery
51	52	Fell 20 feet	12 dorsal and 1 lumbar	Part paralysis rt. glut.; both peroneal and calf groups	Fract. rt. tib. and fib.	Few hours	Hibbs fus. operation	Est. recovery from spinal lesion 90%
52	25	Crushed in street car accident	12 dorsal	Complete permanent paraplegia	Infection G. U. tract	Few hours	Laminectomy	Complete perm. disability

but the factor of permanent disability is likely to be high even after operation. Complete recovery of patients suffering from severe fractures of the spine, without extensive treatment, occurs but rarely.

As the technique of fusion operations becomes perfected and the choice of operation best suited to the individual patient becomes more discriminating, a definite further improvement in the time and degree of recovery may be confidently predicted. Immediate diagnosis of a larger percentage of vertebral fractures will, by making early operation more often practicable, still further lessen the average of permanent disability.

In attempting to estimate disabilities and recoveries in percentages, only a relative degree of accuracy is possible with the data at hand. Not a few cases show apparent complete recovery of range and strength of painless motion after fusion operation, but it is apparent that cases estimated as complete recoveries by less conservative judges will be found to possess a definitely ratable degree of permanent disability under the careful and experienced scrutiny of such investigators as the permanent rating department of the California Industrial Accident Commission. In the author's opinion, an industrial accident commission is justified in exercising a large degree of conservatism in passing upon such cases. Compression fracture of a vertebra is so severe a lesion that it is doubtful if, under any circumstances of apparent return to normal, it can be said that no potential permanent disability is present.

177 Post Street.

DISCUSSION

Ellis Jones (Brockman Building, Los Angeles)—This paper is a valuable contribution to the literature of spinal fractures, and is by far the best paper I have read so far on the subject. Cleary's statement, that 50 per cent of his patients came to him with a missed diagnoses in spinal fractures, is disturbing indeed, but is commonly corroborated in orthopaedic practice. The burden of proof in diagnosis rests upon the roentgenologist, and we are accustomed to ask for at least three views—an anterior-posterior, lateral and oblique radiographs, including a stereograph. It should be an established rule in general practice to regard every back injury as a potential spinal fracture. A clear history and a careful clinical examination will not necessarily make the diagnosis, since an acute infectious spondylitis, a traumatic or infectious myositis, as well as many other conditions may simulate the symptoms of spinal fracture.

Persistent conservative treatment by cast or brace fixation undoubtedly will give good results when skillfully used and when time is no object and the persistent co-operation of the patient is obtained. We are satisfied to return the laborer to active work in from twelve to eighteen months. We have found, however, that internal fixation, whether obtained by the Albee graft or the Hibbs method, is far more satisfactory than any conservative method. In an experience in over three hundred cases of spinal fixation obtained in tuberculous spondylitis, spondylolisthesis and spinal fractures, we have found the Albee method eminently satisfactory. The Hibbs method is undoubtedly equally effective and is, at least theoretically, better applied in the cervical and dorsal regions, especially when the spinous processes are thin and apparently inadequate to insure graft fixation. The operation described by Cleary seems mechanically sound and of especial value when the condition is complicated by laminectomy. Adequate operative spinal fixation, however obtained, certainly shortens convalescence by from six to twelve months, and in the hands of a competent surgeon must be the method of choice in the treatment of spinal fractures.

George J. McChesney (Flood Building, San Francisco)—This is a very timely paper on a timely subject. The author emphasizes common errors in diagnosis and gives us valuable ideas in the operative methods of treatment. Fusion operations are just now obtaining proper recognition for fractures of the vertebrae, although long used with success for the crushing due to tuberculosis.

I heartily agree with his requirement for a proper physical examination: viz., the patient should be stripped and standing whenever possible, but proper x-rays are absolutely essential and the lateral x-ray is all-important. I have seen good antero-posterior x-rays quite fail to indicate a fracture that the lateral shows clearly especially when the crushing involves only a small portion of the body.

As regards treatment, the conclusion reached several years ago by the commission of the American Orthopedic Association for the study of end results of fusion operations for spinal tuberculosis, should also apply to fractures. This conclusion was that the older methods, recumbency and immobilization, are not made unnecessary, but their periods of use are shortened by the fusion operation. This point is well brought out in this paper, and their comparative values from an industrial standpoint well contrasted.

The fusion operations themselves have been used since 1912, and hence are far beyond the experimental stage, especially as they sought to control much more difficult problems such as a larger kyphosis in progressive disease, a sickly child, etc. That they have stood this test of time, with careful follow-up of cases, etc., is more than sufficient recommendation of their efficiency for the simpler mechanical and medical problem of a compression fracture in a healthy adult. In fact, the only limitation of the fusion operation in spinal tuberculosis is that of age. (Young children below six years, owing to presence of cartilage instead of bone where fusion is desired, are not favorable subjects.)

As regards the relative merits of the Hibbs and Albee operations, operators differ partly because they become more proficient in one or the other. The Hibbs is more difficult, tedious, involves more loss of blood, and not infrequently leads to some shock. It is easiest done in the dorsal spine.

The Albee is easier, quicker and comparatively little loss of blood leads to no danger and shock, and has the mechanical advantage, as pointed out in the paper, of having the fusion at the end of a longer lever than the other method. The lumbar and cervical spine are better adapted to it.

The combination of the two, as described in the paper, is certainly ingenious, and in some cases, as stated, should have a definite value.

I had recently the opportunity of examining and x-raying an Albee fusion done on a man in the lumbo-sacral region by the late Doctor Sherman and myself eleven years ago. The man had no vestige of his fifth lumbar tuberculosis, the graft was both palpable to the finger and visible in the radiogram, showing conclusively the permanence of the result. Neither was the slight loss of spinal flexibility an industrial handicap.

The after treatment is all-important, as the author states. I feel that every case should be judged on its merits and no set rule should be laid down. When in doubt, to immobilize a while longer is a safe rule to follow.

This paper should help greatly to put the treatment of a very serious fracture upon a more scientific and efficient basis than it now possesses.

Maynard C. Harding (Timken Building, San Diego)—Doctor Cleary's interesting and well-balanced paper has stimulated me to review the records of thirty cases of my own. My experience leads me to endorse his conclusions in almost every particular. I wish to commend his stand for the operative fixa-

tion of a larger number of these cases than has heretofore been attempted.

There are certain features in the immediate treatment of acute cases which will bear emphasizing. We have two distinct divisions of spine fractures: (1) Those of the spinous process or of the transverse processes, displacement of which cause no cord damage. (2) Those of the body, articular processes, and laminae, displacement of which may injure the cord.

The first type may be moved and manipulated with impunity. Recumbency in a fracture bed, or fixation by a jacket or brace is proper treatment. There are definite limitations to what may be safely done to the second type. Often the damage to the supporting structures is so complete in cervical or lumbar fractures that fresh hemorrhage is easily started up or further pressure on the cord is produced by even the most skilful lifting. Unless open surgery is to be done, the patient should not be moved from his bed. A fracture bed with a smooth, firm mattress can be made to do all that casts, shells, braces, or Bradford frames can do and do it more comfortably.

In fractures of the lumbar and eleventh and twelfth dorsal vertebrae, the desired posture is hyperextension with control of rotation and side-bending. Hyperextension is secured by a firm blanket roll under the mattress, and lateral stability by long sand bags. In dorsal fractures, varying degrees of hyperextension are required, rotation and lateral bending being prevented by the ribs. In cervical fractures both types of fixation are required plus traction, since cervical fractures are prone to telescope. Hyperextension is secured by a firm pad of Turkish toweling or felt. Lateral bending and rotation are controlled by square sand bags, bedded snugly down on the shoulders and reaching above the ears. Ten pounds of traction, applied intermittently, by a Sayre sling is enough, with the head of the bed raised one foot.

The Thomas collar, the plaster jacket and the Taylor brace, in my opinion, are for ambulatory use after healing is well advanced.

Thomas A. Stoddard (291 Geary Street, San Francisco)—I have read E. W. Cleary's excellent article with a great deal of interest. I would like to emphasize that among the early essential factors of diagnosis is a good history of the nature of the accident, and subsequent symptoms, then proper x-rays. The average x-ray technician has not the ability to make proper x-rays with the usual equipment found at most doctors' offices, in the usual hospital plants, or in the average commercial x-ray establishments. Most of the cases that suffer fracture of the vertebrae are of the heavy, muscular type, and therefore require better than the average equipment, particularly to make a differential diagnosis of fractured laminae, and articular processes, and to get proper lateral pictures to show the crushing injuries in the bodies of the fractured vertebrae. It has been my observation that one of the principle causes of failure of early and proper diagnosis has been the lack of proper merit in the x-rays taken.

The average medical man seldom meets with more than two or three of these cases in all his practice, consequently he is not suspicious enough of the nature of the man's injury to make him exhaust all the diagnostic assistance possible before being satisfied that the man has not sustained a fracture. In passing, after examining many hundreds of backs, I have been unable to find a single case of dislocated vertebra which was not accompanied by some congenital deformity or a fracture, and I have found none of the so-called osteopathic or chiropractic subluxations.

Doctor Cleary has confined the scope of his paper to a discussion of compression fractures of the vertebrae. It has been my experience that about 50 per cent of the fractured spines, uncomplicated with nervous symptoms, were compression fractures. I get a large percentage of fractures of spinous and transverse processes and have been fortunate enough to early recognize, both clinically and by x-ray assistance, six fractures of articular processes within the last two years.

All the fractures of articular processes that have come into my hands have been in men doing heavy work and through muscular strain, and not through violence of other types.

Treatment of the last three types of cases is, of course, non-operative. Their period of disability, if diagnosed early and cared for with proper fixation in plaster casts, is much less prolonged and their recovery usually complete.

I believe in early operation in all compression fractures, and use Hibbs' technique as the operation of choice. My post-operative treatment differs from that mentioned by Cleary, in that I keep my patient in bed in a plaster jacket one month, then get him up and about for two months, after which time he wears a Taylor brace for about three months, depending upon the location and severity of the injury, and the nature of his normal duties.

The last three operative cases I had in young men all got back to their normal duties within six or seven months from the time of the initial injury. Recognizing the basic principle that function tends to strengthen the parts, whether soft or hard tissues, I believe these excellent early results were due to the fact that early normal function was instituted in a guarded position without other physiotherapy. I am opposed to long-continued physiotherapy in most of these cases, on account of the dependent psychology which attends such persistent treatment.

Lionel D. Prince (Flood Building, San Francisco)—E. W. Cleary deserves great credit and certainly is to be complimented on having presented in such an excellent and comprehensive manner a paper on so difficult a subject as fractures of the spinal column.

This is an extremely important subject, and too much emphasis cannot be placed upon it. Of the major types of bone injuries there is none, probably, so frequently overlooked and consequently neglected as fractures of the spine. This tendency to overlook fractures of this type is growing less for the reasons that, firstly, spinal fractures have of recent years been given extensive consideration in medical journals and, secondly, the majority of fractures of this type come under the care of industrial and orthopedic surgeons who through experience have become more mindful of their frequency.

The diagnosis is not difficult, and even where clinical manifestations are masked or are not sufficient to warrant a diagnosis, satisfactory x-rays can always be relied upon. Lateral x-ray views are especially valuable and should always be taken. I have on several occasions seen cases where the diagnosis has been overlooked owing to the fact that anterio-posterior views, which were the only ones taken, did not show sufficient pathology to suggest a fracture. Lateral views subsequently taken made the diagnosis indisputable. All spines which have been subjected to trauma warrant an x-ray examination.

Probably the most frequent cause of fractures of the spine, from a mechanical point of view, is the forcible buckling forward of the spinal column—the so-called jack-knife position. Frequently, in falls from a height the patient is jack-knifed. The application of force or blows, as pointed out by Cleary, produces the same effect. In three cases that I recall offhand, one received his injury as the result of a barn door falling and striking him on the shoulders; the second, a miner, was buckled forward as the result of a cave-in in a tunnel; the other, while on his knees under a truck which he was repairing, the supporting-blocks gave way and his spine was jack-knifed when the weight of the truck fell on his shoulders.

I am of the opinion that early operative interference is indicated in most cases of fractured spines. Statistics show that the ultimate outcome, as regards the degree of permanent disability, is very much less in the operative cases, and, as pointed out by Cleary, the period of convalescence is materially shortened. In old patients and in patients with arthritic changes

in the spine, the prognosis is not so good. Arthritic spines often mask, owing to the symptoms due to the arthritis, the advantage of operative interference. These cases in industrial work often get eventually very high ratings. Arthritis, on the other hand, occasionally reacts to the advantage of the patient, and one not infrequently sees cases of old fractures of the spine where a spontaneous cure has resulted from a complete pathological ankylosis of the fractured vertebra.

The accepted Hibbs and Albee methods of interference have given excellent results and, when properly performed, satisfactory results may be expected. The site of ankylosis in the Hibbs operation is mechanically better than that in the Albee. The Hibbs operation is a more difficult one and, in addition, it is tedious and time-consuming except in the hands of the most skilled. The paired graft operation emphasized by Cleary offers a distinct advantage, in that it produces a firm ankylosis at the most advantageous site and precludes the possibility of a fracture of the graft, a complication which is most annoying and which occasionally is experienced in cases operated on by the Albee technique. Cleary's method of insertion of the tibial grafts gives additional insurance of a more adequate ankylosis. I do not quite agree with him, however, that the fusion of one vertebra above and one below the lesion is sufficient to insure the best results. Probably traumatic lesions do not require the same degree of stabilization as diseased lesions of the spine, but I use the same technique in both types of cases. It has always been my policy to fuse two vertebrae above and two below the lesion. This insures greater stability, and I do not believe adds materially to restricting motion in the spine. With the increased accommodative motion in the uninvolved spine very little restriction may result, and I have in mind a case in which I performed a Hibbs for a fracture of the twelfth dorsal vertebra, fusing five bodies. The patient could eventually practically touch the floor with the tips of his fingers.

Physiotherapy, as emphasized by Cleary, is a most important therapeutic adjunct during the period of convalescence. Careless post-operative observation and treatment has in many cases protracted the period of disability. There is too much tendency for the surgeon to lose interest in the case after he has performed the operation. Physiotherapy is equally important in cases where the conservative treatment of spinal fractures has been instituted, though in cases treated by immobilization only there is not infrequently too great a tendency to institute physiotherapy too early. This overenthusiastic and misdirected judgment may easily undo the beneficial effects resulting from the immobilization and eventually bring the patient to the operating-table.

Doctor Cleary (closing) — In closing, I wish to thank the discussants for the very generous commendation given my paper. Increasing experience and study of lesions of the spinal column heightens my appreciation of the sentiment put by Tennyson into the mouth of Ulysses: "Yet all experience is but an arch where through gleams that untraveled world whose margin fades forever and forever as I move."

I am glad Jones stressed the limitations of history and clinical examination as means of making a diagnosis. The revelations from a carefully conducted history and clinical examination both warn the examiner to take the precautions for the patient's protection, ably outlined by Harding, and fortify his resolution to proceed to the exact diagnosis through a thorough x-ray examination, always more or less expensive, and sometimes distressing to the patient.

McChesney and Prince have done well in reminding us that a slight loss of spinal motion is not necessarily an industrial handicap. Good function depends, not so much on preservation of a complete range of motion, as upon the ability to use, without disabling distress, even a considerably restricted range of motion.

I agree with Prince that a fusion operation is an undertaking for the specialist in bone surgery.

I am particularly interested in Stoddard's experience in getting patients upon their feet four weeks after operation. I quite agree that it is desirable to shorten the period of immobilization and recumbency as much as is safe. I believe that, for every week safely cut from the immobilization-in-recumbency period, ultimate recovery is advanced by two to three weeks.

It gratifies me that the importance of physiotherapy in these cases is so generally conceded. I believe we are all agreed that, in discussions of problems of restoration of joint function, co-ordination should be spelled with capitals.

There are over one hundred joints either directly or very intimately associated with the spinal column. I do not know that anyone has been found with the temerity to announce the exact number of muscles concerned in the functioning of this vast aggregation of joints. The disability due to failures and disturbances of co-ordination after severe spinal injuries often seem proportionate to the complexity of the joint and muscle system involved. After the necessary measures to restore skeletal support have been taken, properly applied physiotherapy is our greatest aid to recovery in the restoration of muscular strength and co-ordination.

Hydrochloric Acid Therapy in Rickets—Those infants having relatively little hydrochloric acid in the gastric secretion may develop normally when breast-fed, but, says Martha R. Jones, San Francisco (Journal A. M. A., February 9, 1924), if the diet is changed to foods having a higher potential alkalinity, the amount of acid present may be insufficient for normal mineral metabolism. Individual differences in hydrochloric acid secretion may also explain why one of a pair of breast-fed twins is rachitic and the other not. It is conceivable that the beneficial effects derived from cod liver oil, sunlight and improved hygiene may be due to the stimulation of general metabolic processes, and indirectly the readjustment of the acid-base balance in the body. For the latter theory there is some foundation in an athreptic infant, age three months, in whom the gastric contents after a test meal of oatmeal gruel showed complete anacidity. Hydrochloric acid was added to the milk formula, and not only was there prompt and striking improvement in the general well-being of the infant, but the gastric tests made during the acid therapy showed a curve well within normal limits. When the infant's condition warranted a discontinuation of the hydrochloric acid, gastric tests still showed the presence of considerable acid, although the curve was not so good as that during the acid therapy. Apparently, in this case, the increase in hydrochloric acid secretion was the result of general improvement which was initiated by the addition of acid to the diet. Furthermore, the fact that inanition greatly retards the rachitic process can also be explained in the foregoing hypothesis, since the products of catabolism of body tissue are acid in reaction, and may help to restore a normal acid-base balance. Having succeeded in producing rickets in apparently normal puppies on a well-constituted diet with the addition of an alkaline salt mixture and to cure this condition with no changes in environment or diet other than the addition of hydrochloric acid, Jones decided to try out this therapy on rachitic infants. The result was very satisfactory. The cases are reported.

Notice to Motorists Planning to Drive to Annual Meeting at Los Angeles—Various and conflicting reports are current of difficulties incurred by people traveling thoughout the State. Those who desire to motor down to Los Angeles, would be wise to get in touch with the California Automobile Association, and see what the actual conditions are before starting.

DEEP X-RAY THERAPY *

By JAMES P. KERBY, Salt Lake City, Utah.

Deep x-ray therapy is a relative term. Treatment of any condition beneath the epidermis is, therefore, deep therapy.

However, by the term "deep therapy," as used by radiologists of the present day, is meant the treatment of conditions by rays produced by transformers generating 200,000 or more volts, which have been filtered through copper or zinc. As a matter of fact, copper is the agent which is almost universally used as a filter in this country. Rays generated by a current of this voltage, filtered through copper, approaching the gamma rays of radium in physical properties, are known as hard rays. These hard rays may be used in the treatment of superficial lesions; for instance, epithelioma. One of the most startling results I have ever seen was in the case of an epithelioma involving the nose and upper lip, with large metastasis to the glands of the neck. This condition was pronounced inoperable by two competent surgeons. Nine months after completion of deep x-ray treatment he is apparently well, with no evidence of original lesion or metastasis.

At a meeting of this society last spring, in a preliminary report, I suggested the term "high voltage, heavy filter, x-ray therapy" as a descriptive term for this method of treatment.

This method of treatment is the subject of so many articles in general and special journals that a detailed account of its historical aspect is unnecessary. Suffice to say, it is not really new, for experimentally it was used nearly twenty years ago, and has been in use in German clinics for ten years.

Its use in this country is comparatively new. The first machine to be built in the United States was used by Millwee of Dallas, Texas, less than three years ago.

It is interesting to note, in observing the strides made along this line, that during the discussion of a paper by this same title read about two and a half years ago before this society, mention by me of the fact that this new type of x-ray therapy was being utilized in Europe was passed with scant acknowledgment and apparent questioning of its efficacy by the essayist of the evening. During the past two years the apparently greater success achieved by its use as compared with the results with the older therapy, which, for distinction, I will call 9″ therapy, in contra-distinction to the newer, so-called 20″ therapy (though, as a matter of fact, the tubes which are now commercially available will stand only a voltage equivalent to a 16″ spark gap) has resulted in its widespread adoption. However, I fear this widespread utilization may prove a temporary hindrance to a true appraisal of its value, because it will undoubtedly be used by some men without sufficient knowledge of the dangers inherent in its usage. For it cannot be disputed that it is not safe to employ such a powerful agent without due consideration of the destructive factors difficult of disassociation from it.

In the consideration of any therapeutic agent it is important that its modus operandi be determined, if possible. The manner in which radiant energy inhibits or destroys living tissue is a moot question. Of course, an overdose destroying all tissue can be understood. But the manner in which it acts when used therapeutically is not definitely known. By some, it is believed that the—if I may use the term—cellular growth-producing hormones are destroyed. Possibly a larger percentage of investigators believe it due to some alteration in the permeability of the cell membrane. In a general way, the more nearly a new growth approaches the primary embryonal tissues, the more likely it is to be affected by radiation. Vascular and lymphatic endothelium are very susceptible to radiant energy, so tumors composed largely of this type of tissue offer a favorable field for x-ray therapy; hence the encouraging results in Hodgkins' disease and lymphosarcoma. Intercellular connective tissue is relatively highly resistant, therefore tumors made up largely of this type of tissue are less favorably affected. From this it will be seen that the type of tumor rather than its location determines the degree of success which may be anticipated. This statement, while practically axiomatic, is subject to definite limitation, because of the problems involved in delivering the necessary dose to the growth. If it were possible to expose the neoplasm to the direct action of the rays we would be able to destroy it by radiation therapy; incidentally, it could be removed surgically. The problem is to pass the rays through the intervening structures in such quantity as necessary to effect the desired result and at the same time not do these tissues an irreparable damage. In addition to the destructive action exerted on malignant cells it is believed that the obliterating endarteritis, the round cell infiltration and scar tissue formation wall off more resistant malignant cells and prevent their entrance into the blood and lymph streams. Many observers believe that, in addition to the local changes produced, a constitutional reaction ensues which may be compared to the formation of antibodies following bacterial invasion. Results of animal experimentation, however, show such varying results that this cannot be stated positively.

The essential factors in this form of therapy are:

1. The utilization of short-wave x-rays, heavily filtered. The short-wave rays are obtained by using a high voltage current, 200,000 or more volts, and employing heavy filters which shut out a very large percentage of the rays which are injurious to the skin.
2. A great increase in the distance between the patient and the tube.
3. The use of large treatment areas.
4. Long treatment periods.

In the beginning of this form of treatment, a great deal was heard of carcinoma doses, sarcoma doses, etc., as if a malignancy could be cured by simply turning on a current and letting it play the resulting rays on the involved region. In my opinion, practically every case is a law unto itself. The same skill and judgment must be utilized in attacking a cancer problem by radiant energy, cautery or knife, the weapon used in the attack depending upon the given case. This brings up the actual methods of treatment. It is not my plan to discuss this tech-

* Read before Salt Lake County Medical Society, November, 1923.

nically, but to give you an idea of the factors involved. Before deciding on the plan of attack, it is well, so to speak, to make a reconnaisance. The patient's general condition must be evaluated—i. e., blood, urine, heart, lungs. Would this patient be a good surgical risk and would you be willing to operate if operation were indicated? Is there evidence of metastasis? Examination of the points where metastasis is most likely to occur must be made. The various tests necessary in determining these facts—x-ray, laboratory, clinical—must be utilized. To cite a few instances, a carcinoma of the prostate may extend to the seminal vesicles, to the rectum or bladder, the aortic glands, the spine, hips or pelvis. Carcinoma of the breast may extend to either axilla, either side of neck, the opposite breast, the lungs, spine or pelvis.

This survey having been completed, the next thing, of course, is to undertake the treatment. And this is usually no easy matter in cancers involving the abdominal and pelvic cavities. There has been some discussion about how much exposure the intestinal mucosa will resist. Recent investigation tends to show that it is not improbable that this membrane is at least as susceptible to x-ray exposure as the skin. It has been observed that at a distance of 10 cm. beneath the surface a certain percentage of the x-rays reaching the skin is delivered. This percentage varies according to the factors involved in the treatment, but with the majority of machines used in America utilizing the treatment factors usually employed, it is somewhere between 40 and 50 per cent. In a general way, from 75 to 125 per cent of the amount of radiation which will produce an erythema of the skin is believed necessary to destroy malignant cells. By an erythema in this case is meant a slight reddening of the skin, followed by a deep tanning which vanishes in from ten to twenty-one days. It is thus seen that if a certain quantity of rays will produce skin reaction varying from erythema to ulceration, a similar reaction might be produced in the intestine if the same amount of radiation reached it. It seems reasonable to me to believe that most of the nausea, vomiting, diarrhea, and prostration sometimes associated with this form of treatment, are due to damage to the intestine, as these symptoms are much more noticeable after abdominal than after thoracic or extremity radiation in much larger quantity.

One of the most, if not the most, difficult problems in modern deep x-ray therapy is dosage. It is my opinion that there is no hard and fast dosage for any one condition. Two neoplasms of apparently the same type in the same organ in two different individuals, as nearly as possible to determine of approximately the same size, have given entirely different results. I have treated in two cases what I believed to be approximately the same condition in the same organ, with exactly the same technique, as accurately as I was able, with considerable difference in the end results. This would certainly seem to emphasize the truth of the dictum that every case is a definite entity in itself and must be regarded as a distinct biologic and physical problem.

Before going further, I wish to state that it is my opinion that every operable malignant tumor should be operated on; that uterine and mammary carcinoma should be x-rayed from eight to fifteen days before operation; that in every case operated on there should be post-operative radiation of essentially the same type as that case would have received had it been inoperable; that all areas to which lymphatic drainage occurs should be radiated; and, unless there is a definite contra-indication, the areas to which metastasis most commonly occurs should be radiated. I believe that supplementary radiation of this type will materially increase the percentage of three and five years' operative cures. There is convincing evidence that more sarcomas, especially lymphosarcomas, will respond more favorably to radiation than to surgery.

Always bearing in mind that I place operation first where there is reason to anticipate favorable results from operation, x-ray therapy is indicated in malignancies of the brain, malignancy of the thyroid, prostatic hypertrophy, benign and malignant, malignant conditions of the breast, lymphosarcoma and lymphogranulomatosis, tuberculous adenitis, fibroids, chronic non-malignant endometritis, keloids, peritoneal and genital tuberculosis. In hypernephroma, it is beneficial in relieving pain, but the danger of destruction of adrenal function must be guarded against. Encouraging reports of the palliative value of x-ray in malignancy of the esophagus are being received. When we consider that the number of cases of definitely diagnosed cancer of the esophagus which have been cured can be counted on the fingers of one hand, the further use of x-rays in the hope of securing a cure is warranted. An increasing number of cases of gastric malignancy considered unsuitable for surgery are being reported, with apparently encouraging results, from high voltage x-rays. However, the treatment has not been used generally. In cancer of the sigmoid and rectum, striking palliative results have been observed and apparent cures secured.

This paper is not presented with the idea of establishing a therapia magna sterilisans for the treatment of malignancy. It does not have for its purpose to propose radiant energy treatment of all malignancies. It merely reviews the advances made in the line of x-ray therapy as an adjuvant to or as a substitute for medical or surgical treatment of disease. Surgery, endocrinology, internal medicine, radiology are all branches of the healing art, and no one of them can stand alone.

Boston Building.

Immunization Against Typhoid — Ordinarily typhoid vaccine is administered at intervals of seven days. It is said that if the interval is less than seven days the immunity may be less than after longer intervals. It is asserted also that the maximum response follows when the intervals between the injections are lengthened to eighteen or twenty days. No definite statement can be made as to what the optimal intervals really are. Immunity after antityphoid inoculation is not absolute. Army medical officers express the opinion that immunity from inoculation begins to decline in from two to two and one-half years; but even after four and five years, the typhoid rate of inoculated troops has been estimated at about one-fourth that of uninoculated troops.—Journal A. M. A., February 2, 1924.

SOME TYPES OF CHRONIC RECURRENT PYELITIS AND THEIR TREATMENT*

By FRANKLIN FARMAN, M. D., Los Angeles, Cal.

Women are more subject to pyelitis than men. This fact has been explained by the peculiarity of feminine body form, and by the anatomical shallowness of the lumbo-renal recess in women as compared with men, which permits of greater mobility of the kidneys, and which subjects the kidneys to many forms of internal and external traumata.

Congestion of the kidney is regarded as the actual important factor in the production of renal infection. Mobility of the kidney, occasioning either slight torsion of the vascular pedicle, or slight retention by kinking of the ureter, the trauma of slight bruises and wrenches, straining, lifting and flexions of the body, and toxic influences all lead to congestion of the kidneys. Congestion of the kidney is even more important than the type of bacterial invasion, for it is well known that a normal kidney will excrete and destroy bacteria and that no infection results unless the dose of bacteria reaching the kidney is deposited in congested tissue. About 90 per cent of renal infections are caused by the colon bacillus, and another 5 per cent are caused by one of the pyogenic cocci. In this discussion tuberculosis of the kidney and the rare forms of pyelitis are not considered.

Renal infection in the female may appear at any age from childhood on, but there are certain periods of life in which the recurrent types are more apt to become activated. For instance, pyelitis in young adult women occurs more commonly after marriage than before. The so-called "defloration" pyelitis occurs at this age. Women around the menopause age are particularly subject to urinary disturbance. The trauma of repeated childbirth and the strain of heavy household work are factors which lead finally to congestion and infection of the kidney. Elderly women, too, are prone to the chronic recurrent types of infection. A chronic urinary infection may remain dormant for years until suddenly activated by some indiscretion, or general lowering of vitality.

In young adult women attacks of pyelitis are frequently precipitated by marriage or make their appearance during the early months of pregnancy. Some extra strain, overexertion, chill, "cold," intestinal upset, menstrual irregularity, or the like may be the immediate exciting cause. Careful questioning frequently reveals a history of some previous urinary disturbance occurring during childhood or youth, often not recognized or considered as a definite entity. So often urinary symptoms in the young are considered lightly and ascribed to gastrointestinal disorders or nervousness. Many patients will tell you that they had "weak kidneys" early in life or were subject to enuresis.

The typical attack of acute pyelitis in young women comes on suddenly with symptoms of urinary disturbance. Frequency, burning, and marked urgency are predominate symptoms. The presence of chill and fever are not constant, and do not occur unless there is urine retention with toxic absorption. The leukocyte count generally is low, under 15,000. Pain in the region of the kidneys frequently is absent in uncomplicated pyelitis. A catheterized specimen of urine contains pus cells, occasionally red blood cells, epithelial debri, and bacteria. Mild attacks of pyelitis often subside quickly and spontaneuosly, but the more severe cases tend to run a protracted and relapsing course extending over a period of weeks.

Pyelitis attacks occurring in middle-aged women may be similar to those occurring in younger women, but there are certain added factors which frequently change the clinical picture and alter the course. Many women, apparently in good health, "carry on" for years, experiencing occasionally mild transitory periods of urinary disturbance with indefinite backache or abdominal pain, until a sudden, sharp attack of urinary distress, kidney area pain, chill and fever, directs attention to the actual condition of pyelitis.

Women of this age are more apt to be suffering from nephroptosis, from strictures, kinks, or angulations of the ureter, from cystocele, pelvic tumors, and from chronic infections of the abdominal viscera. We should mention especially the close relationship of gall-bladder disease, and colitis, to renal infection. Definite experimental and clinical tests have shown that the constant elimination of bacteria and toxic material brought to the kidney by the blood stream from distant sources of infection (teeth, tonsils, sinus) finally result in irritation, destruction, and infection of the kidney itself.

Due to the above complicating factors, chronic renal infections occurring in middle-aged women frequently run a varied and atypical course. Kidney area pain is a more constant and prominent symptom. The bladder symptoms oftentimes are mild, but, on the other hand, may be of the greatest severity. Associated digestive and nervous symptoms are misleading. The urinary findings are similar to those in other forms of pyelitis, but we more often find mixed infections. The functional capacity of one or both kidneys will be found greatly diminished, as indicated by the phenolsulphonphthalein test.

It is in this period of life that most surgical conditions arise. Attacks of pyelocystitis are not at all uncommon following operations. I recently treated a woman for a severe renal infection, which followed a simple hemorrhoidectomy. The frequent occurrence of vesical irritability and loss of bladder function following major surgical operations, especially of a gynecological nature, is known to all surgeons. The treatment of this condition will be mentioned later.

The symptoms of renal infection in elderly women are of bizarre character. The symptoms are less acute, patients acquire a high degree of tolerance for pain and urinary irregularity. Also a certain immunity against the infecting organism is established. So-called "urethral chill" with fever occurs when there is sudden renal or vesical retention. Often there is loss of weight, cackexia, and anemia, the resulting picture being that of cancer. The urine generally is highly colored, offensive from ammoniacal decomposition, and heavily loaded

* Read at annual meeting of the Nevada Medical Association, Reno, September 28, 1923.

with pus, mucus, and bacteria. The clinical course is slow and irregular, with periods of slight exacerbation.

Treatment—I offer nothing experimentally new in regard to the treatment of pyelitis, but wish to call attention to certain details and modes of therapy which have proven successful in our work. Acute attacks are treated symptomatically and later treatment is directed toward correction of the accessory causes of renal infection.

Absolute rest in bed is an important factor in the quick relief of the acute inflammatory symptoms of the urinary tract. In the absence of chill and fever, patients are inclined to keep up and about their daily duties, even pain not being sufficient to cause a patient to voluntarily confine himself to bed. For this reason we aim to hospitalize patients at the onset of an attack, so that absolute control of the clinical course may be maintained. For economical reasons, I do at times attempt to direct teatment of a case of pyelitis by home and office visits, but find that such cases tend to run a more protracted and relapsing course.

Diet is another important and often neglected factor in the cure of renal infections. Proper emphasis has been placed upon diet in the treatment of nephritis, but in renal infections which are more of a surgical nature, the importance of diet therapy has been overlooked. A diet which puts the kidney at rest, which reduces the acidity of the body, and which keeps the urine neutral or alkaline is desired. The so-called "basic nephritic" diet as advocated by Sansum does this. In general this diet includes mostly vegetables, fruits, and sugars, and excludes meats, eggs, and cereals. All foods which are essentially basic or neutral in nature may be allowed. Orange juice is very potent in rendering the urine rapidly alkaline. One glass at each meal is advised. Contrary to popular impression and taste, orange and lemon juice are not acid, but basic in nature. I have found this diet of the greatest help in relieving the distressing urinary symptoms of an acute attack. The basic diet, with exceptions, should be followed until the inflammatory lesion of the kidney and pelvis have healed.

In addition to the "basic diet," we administer drugs at the onset of an acute attack to further insure alkalinity of the urine. The citrates, acetates, or carbonates are the usual drugs employed. I find a combination of sodium bicarbonate and calcium carbonate in large doses useful. It is well to ascertain the degree of alkalinity of the urine frequently by determining the hydrogen-ion concentration or for clinical purposes the ordinary litmus test is sufficiently accurate.

Following subsidence of the acute symptoms of pyelitis, the administration of alkalies may be discontinued, and an urinary antiseptic given. Hexamethylenamin, better known by the trade-name of urotropin, is the most effective of all urinary antiseptics. Care should be exercised in its administration, and I wish to emphasize that generally hexamethylenamin should not be given for acute urinary symptomatology. The physiological effect of hexamethylenamin is due to the antiseptic action of the formaldehyde liberated in acid solution. A more uniform effect of urotropin is noted when the urine is made acid by the associated administration of acid sodium phosphate. The latter drug has no influence on the general body reaction or the alkalinity of the kidney tissues as maintained by a basic diet.

Experimentally, it has been found necessary to give large doses of hexamethylenamin in order to recover free formaldehyde in the urine, but for practical purposes, small doses in 5 to 10 grain amounts often are sufficient to control a chronic pyuria and bacteruria. Larger doses up to 60 or 90 grains per day may be used to render the urine sterile following an acute infection. It is best to give urotropin at intervals and for periods not longer than five to ten days. The untoward effects of hexamethylenamin are indigestion, aggravation of urinary symptoms, and renal irritation up to the point of hematuria.

A pyelitis which does not subside readily under medical management, or which tends to recur, should then be treated surgically. By surgical we mean direct kidney and bladder treatment, and investigation and correction of the accessory causes of infection. Our greatest success in the cure of the chronic types of pyelitis has been through the use of "pelvic lavage." Many patients experience their first relief from urinary distress following drainage and lavage of the kidney pelvis. We employ a silver nitrate solution in 1 per cent to 2 per cent strength, injecting through ureteral catheters amounts depending on the size of the renal pelvis. The pelvis should be allowed to drain thoroughly before lavage is carried out. It is better to use a warmed solution, making the injection slowly, and taking care not to distend the pelvis. In this way after-pain and colic are avoided. We repeat "pelvic lavage" once or twice per week, depending upon the clinical improvement and urinalysis. We aim to continue treatment until the separate urine specimens from each kidney are negative for bacterial growth and free from pus cells. This, however, is not always practical or necessary, as the clinical improvement following one or two treatments may not warrant further instrumentation.

Mention should be made of the value of "pelvic lavage" in the treatment of pyelitis of pregnancy. No other form of treatment gives uniformly such satisfactory results. It should be remembered that bladder symptoms occuring during pregnancy are rarely caused by pressure of the gravid uterus alone, but that a pyelitis more often is the responsible factor.

The important mechanical accessory causes of renal infection commonly found are varying degrees of nephroptosis, strictures and angulations of the ureters, and vesical retention or cystocele. Oftentimes it is difficult to correctly interpret mobility of the kidney. Palpation alone is not reliable, but should be combined with roentgen visualization of the kidney and pyelography. When it is determined that abnormal mobility of the kidney exists, a properly fitted abdominal belt or corset is recommended. Occasionally, it is necessary to correct sagging of the kidney by operation, in order to secure free drainage of the kidney pelvis.

In elderly women I encounter often marked tor-

tuosity of the ureters, strictures, and stenosis of the ureteral openings. In these cases the mere passage of an ureteral catheter often is sufficint to relieve an attack. Dilatation of a stenosed, pinpoint, fibrous ureteral opening gives prompt and permanent relief in many instances, and is fully as important as dilation of an urethral stricture.

Curtis has called attention to the frequency of urine retention found in post-operative and pregnancy cases. He holds this as a responsible factor in the production of pyelitis. In the routine examination of women complaining of urinary symptoms, we always look for and determine the presence or absence of residual urine. Sometimes it is necessary to examine for residual urine on successive occasions, as nervousness or sphincter spasm may prevent complete evacuation of the bladder, and then in the early stages of vesical relaxation it may be possible to empty the bladder completely by extra voluntary effort. Much can be done in this type of case to prevent retention and ascending infection.

The Curtis plan of management of the female bladder after operation and during pregnancy depends on two cardinal principles: 1. Catheterization is avoided if possible, but no patient is allowed to suffer from distention; 2. If the catheter has been employed, it is thereafter used once a day until the patient has regained the power of complete evacuation. The catheter is passed once a day, immediately after urination, until residual urine disappears. Before withdrawal of the catheter a few cubic centimeters of one-eighth per cent silver nitrate solution are instillated.

Renal infection occurring secondary to gallbladder, appendiceal, pelvic disease, or tooth, tonsil or sinus infection will spontaneously disappear following surgical relief of these foci. I wish to emphasize the importance of the removal of these chronic sources of bacterial and toxic formation, for I have previously pointed out that the constant excretion of these products by the kidney may finally result in infection of that organ itself.

Before dismissal of a case of pyelitis, we instruct our patients in what we have termed "bladder hygiene." They should avoid overexertion, fatigue, chilling, and exposure to inclement weather. Many of my cases during the past summer have come on following ocean-bathing, with sudden chilling of the body surface. They should be cautioned against inattention to proper bladder function. Neglect and voluntary suppression of the desire to urinate is a frequent cause of urinary disturbance. Women especially are prone to accustom themselves to overdistention of the bladder on occasions of long automobile trips and social gatherings.

Diet and careful regulation of the bowels are important. The "basic" diet serves admirably to alkalinize the urine at intervals. We generally advise a patient, subject to chronic renal infection, to take a course of alkaline powders once a month followed by a course of hexamethylenamin and acid sodium phosphate. Such a regime, if closely followed, favors complete healing of certain types of kidney infections.

(1501 South Grand Avenue.)

UNIQUE TRANSPOSITION OF ABDOMINAL VISCERA FROM HYDROTHORAX

By A. W. MEYER
Division of Anatomy, Stanford Medical School

Although I have made an earnest effort to learn of cases similar to the present one, my search has been unavailing so far. I have seen some very pronounced displacements of the liver caudally and also of the diaphragm cranially, in connection with various thoracic or abdominal conditions, but I have never seen anything, even roughly approximating the displacements of the liver and stomach, in the present case. Indeed, as an anatomist, I would have questioned whether anyone could endure such changes in position, no matter how gradually they occurred. That the hydrothorax in question must have been of rather long duration seems self-evident, for any abrupt displacement of the respective organs, even roughly approximating the conditions which obtained in this case, undoubtedly would have led to sudden exitus.

The body was that of a man, aged 57, who had given a history of night sweats beginning four and one-half months before admission. At this time he had been run over by an express wagon, a wheel of which passed over his left thigh, abdomen, and chest. It was noted in the clinical history that upon admission he was found too ill for a complete examination. Although the aggravation of the symptoms resulting from the accident brought him to the hospital, it was noted that he had felt weak for about eighteen to twenty months before admission, and that he tired easily. He had suffered from frequent colds since nine months before admission, at which time his cough had grown worse and was accompanied by expectoration of "four or five mouthfuls of blood at a time." Following the accident, he became progressively weaker and was shorter of breath. "A slight irregularity" of the right pupil was noticed. The cervical glands were enlarged and the clavicular fossae were very deep. Tachycardia was present.

Upon dissection the body was found to be in fair condition of nutrition. Inspection revealed fullness and particularly increased firmness in the whole epigastric region, suggesting the presence of a very greatly enlarged liver. The right side of the thorax seemed a little more prominent and rounder than the left. This thoracic asymetry became more evident upon removal of the upper extremities.

Upon opening the abdominal cavity in the course of dissection, the unusual position of the liver at once attracted attention and suggested the presence of a partial situs inversus. However, upon further inspection the right dome of the diaphragm was found protruding far below the right costal margin. The abdomen contained no evidences of adhesions, and, as shown in the figure, the apparently large, oddly shaped but otherwise normal liver occupied the greater part of the ventral portion of the cavity, being dislocated very far to the left. The right lobe seemed greatly enlarged, but the surface was smooth, although marked with a fine vascular relief suggesting possible congestion. A very shallow sulcus extended obliquely to the left from the um-

bilicus along the ventral surface of the right lobe of the liver, and very plainly resulted from pressure of the ligamentum teres hepatis, which made an angle of approximately 75 degrees with its normal position, extending to the left instead of to the right of the midline. The omentum lay entirely on the left side, and the liver as a whole seemed to be enlarged about one-fourth. It extended 5 cm. below the umbilicus, the caudal border of the right lobe lying 7½ cm. to the left of the midline and its diaphragmatic surface 3 cm. below the right costal border. The gall-bladder notch lay about 2 cm. below the umbilicus and 7½ cm. to the left of the midline. The ligamentum teres crossed the left costal border at the tip of the ninth costal cartilage, 9 cm. from the midline, and an equal distance below the level of the caudal extremity of the xiphoid. The dorsal surface of the right lobe of the liver was moulded to fit the vertebral column, and the entire diaphragmatic surface of the right lobe was occupied by a broad, deep impression made by the inverted right dome of the diaphragm.

The pylorus lay at a level 2 cm. cranial and 8 cm. to the left of the umbilicus. The small intestine was crowded into the pelvic cavity in the hypogastric region, a few coils only extending upward a short distance beneath the thick, rounded border of the right lobe of the liver. The right colic flexure was located immediately above the crest of the right, and the left flexure 5 cm. above the crest of the left ilium. The coecum, with a retrocoecal appendix, lay in the right iliac fossa quite in normal position.

The hepatoduodenal ligament formed a very prominent fold with a slightly crescentic border to the left, and was fused with the mesocolon. It extended a little to the left of the midline, had a width of 3 to 6 cm., and was entirely free from adhesions to the peritoneum behind it. It formed a large pouch with an opening approximately 7 cm. long and 4 cm. wide, facing in the direction of the spleen. The line of attachment of the mesentery was displaced caudally several centimeters.

The stomach, the left border of which was barely visible in the opened abdominal cavity, lay to the extreme left, occupying the upper portion of the left hypochondrium. It lay in a vertical position and was firmly contracted into a tubular form as is not rarely the case in dissecting room cadavers. The fundus lay directly over the spleen, which was enlarged somewhat and rotated 90 degrees. It was displaced obliquely to the right, its diaphragmatic surface having become dorsal in position, and being deeply grooved by the ribs.

The abdominal portion of the oesophagus turned sharply to the left from the diaphragmatic hiatus, the cardia lying 7 cm. to the left, approximately in a parasternal line. The duodenojejunal junction lay directly dorsal to the pylorus in the left hypochondrium, having been displaced caudally, and to the left far less than one might have expected in view of the greatly changed position of the pylorus.

The right kidney was somewhat displaced and rotated about 60 degrees, the caudal pole lying opposite the third lumbar vertebra, but the left was in about normal position.

The right dome of the diaphragm was totally inverted and depressed until its lower convexity reached 3 cm. caudal to the costal border in the right mammary line. It remained 2 cm. below this border from here to the median line, where it met the left dome approximately 2 cm. to the right of it. The inverted right dome was stretched until it lay 7½ cm. farther caudal than it is possible to move the normal specimen.

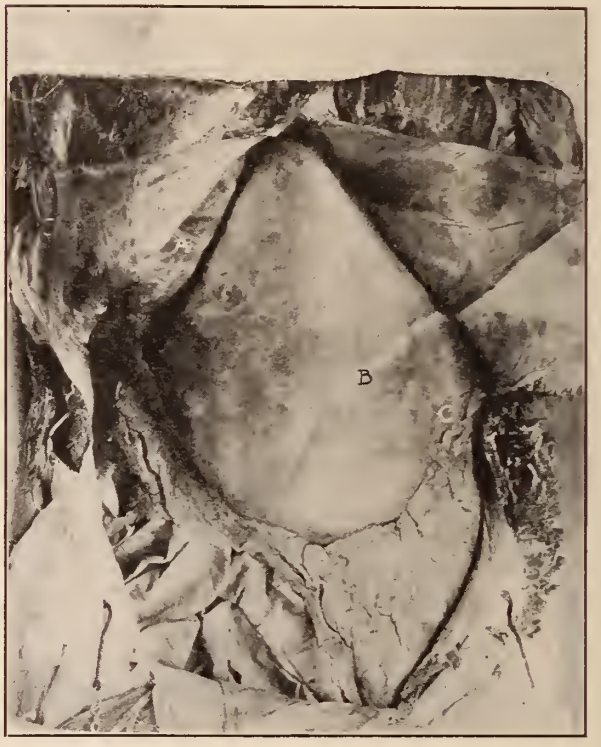

Figure 1—Abdominal wall reflected to expose viscera in situ. (A) Inverted right dome of diaphragm. (B) Sulcus on liver from ligamentum teres hepatis which is plainly visible on the interior surface of the reflected left rectus abdominis. (C) Location of the gall-bladder. The pylorus lies directly dorsal. The displacement of the transverse colon and the unusually large area occupied by the liver are plainly evident.

In spite of the astonishing displacement and rotation of the liver with consequent tension upon the vena cava and compression of the liver, there is no evidence that ascites was present, for the increase in abdominal tension from inversion of the right dome of the diaphragm may have been responsible for rather prominent peritoneal fossae in the femoral and inguinal regions.

Upon removal of portions of the right ribs the parietal pleura was found only very slightly thickened, though somewhat more opaque than normal. Though remarkably enlarged, the right pleural cavity contained no coagulum. Only a few fibrin strands and small remnants of old adhesions were found dorsally. The extent of the effusion, as shown by the volume of the pleural cavity, was 3300+ cc. The right lung, which was covered by a thickened visceral pleura, was markedly compressed, lying very largely in the upper third of the pleural cavity and being pressed firmly against

the vertebral column. The narrow tip of the lower lobe extended down to the diaphragm, to which it was adherent in the midline. The upper lobes formed a small, flat, triangular mass, the apex of which extended to the level of the sixth rib, occupying an axillary position against the ventral thoracic wall. A large vomica with somewhat fibrous walls occupied the upper third of the adherent, collapsed and compressed upper and middle lobes. The superior mediastinum was displaced about 4 cm. to the left of the median line at the fifth chondrosternal junction. The posterior mediastinum was displaced approximately to the left border of the vertebral column, with the heart lying entirely to the left of the median line. The azygos vein was not evident upon inspection, in spite of the very marked displacement to the left, of the posterior mediastinum. The oesophagus was displaced to the left, especially in its upper portion. The inferior vena cava crossed the vertebral column approximately in the midline, but turned obliquely to the left to join the heart.

The left costal pleura was normal except for a few small adhesions of the upper lobe to the pericardium and to the fourth rib in an axillary line. Although the entire upper left lung was studded with numerous nodules, apparently tubercular in character, the lower lobe was wholly free.

Although the hydrothorax in this case was very large, its volume alone does not account for the remarkable rotation of the liver to the left, amounting to almost 95 degrees. In another cadaver in which the hydrothorax was almost as large and in which the right dome of the diaphragm was also partly inverted, the liver was merely displaced caudally. That the intrathoracic pressure was very considerable also in this other case of right-sided hydrothorax is shown by the fact that the trachea was displaced markedly to the left, entering the thorax at the left sternoclavicular junction. The anterior mediastinum was displaced 7 cm. to the left of the midline, the right atrium and superior vena cava decidedly compressed, and the heart dislocated very far to the left. A large diverticulum of the posterior mediastinum extended caudally between the crura of the diaphragm to the second lumbar vertebra, lying directly dorsal to the omental bursa. Yet there was no rotation of the liver in this case.

It seems probable that the extent to which the mediastinum yields, the extent of the depression of the right dome of the diaphragm, and especially the rate of the effusion, may largely determine whether or not the liver is rotated to the left in cases of right-sided hydrothorax. Nor does it seem unlikely to me that the strength of the abdominal wall may be an important factor.

The extreme extent of the displacement, especially of the stomach and liver in the case here reported, implies that the effusion and the resulting displacement probably were very gradual. In individuals with relaxed abdominal musculature the direction of least resistance from intrathoracic pressure naturally would be mainly downward. In right-sided effusions, as in the present case, with an unyielding mediastinum, the right dome of the diaphragm would necessarily have to yield more. If the mediastinum more nearly maintains its normal position the heart and the left lung are more undisturbed. Consequently, it would seem that survival for a longer period of time would be more likely, permitting a gradual displacement of the liver and pylorus to the left. It is also likely that the presence of a large left hepatic lobe, held in position by its attachment to the left dome of the diaphragm which maintains a practically normal level, also might facilitate rotation of the liver. Nor is it unlikely that the habitual posture of the individual may be a factor, although it would seem that the nocturnal posture naturally assumed in right-sided hydrothorax would militate against rather than for, a rotation of the liver such as observed in this case. I have not been able to find any satisfactory explanation for the marked hepatic and gastric displacements in this case of hydrothorax, and as far as I have been able to learn, no such corresponding transposition of the liver and stomach are mentioned as a possibility in contemporary works on physical diagnosis. They merely speak of a change in liver dullness, and do not mention the possibility of rotation at all.

"More and Better Dentistry"—Under this slogan, the California State Dental Association will hold its fifty-third annual session at the Civic Auditorium, San Fancisco, June 11 to 15, inclusive.

The very complete and excellent program contains discussions of subjects of the greatest interest to physicians as well as dentists. The whole program has been so constructed that it constitutes a real five-day course in intensive graduate instruction. Clinics, scientific and commercial exhibits are well arranged, and the social program is—well Californian.

The officers and chairmen of the committees are: John D. Millikin, president; D. H. Leppo, president-elect; B. Frank Gray, secretary; Robert E. Keys, treasurer; Frederick T. West, editor; Guy S. Millberry, chairman Educational Committee; F. V. Simonton, chairman Research Committee; John E. Gurley, chairman Interstate Relations; D. H. Leppo, chairman Membership Committee; W. P. Heaney, chairman History and Necrology Committee; Fred J. Seiferd, chairman By-Laws Committee; Arthur M. Flood, chairman Legislative Committee; Charles Zappettini, chairman Dental Science and Literature; T. A. Vogel, chairman Insurance Committee; Robert E. Keys, director Exhibit Committee.

Fat-Free Tincture of Digitalis (Propaganda for Reform)—Roth found that fat-free tinctures of digitalis had no advantages over the U. S. P. tincture of digitalis. On the contrary, he found some of these fat-free tinctures were so unstable that he advised manufacturers not to market them without stating the date of their manufacture on the label. "Fat-free" tincture of digitalis was introduced under the belief that the fat from the leaf produced gastric disturbance; but Hatcher and Eggleston fed the fat to cats and found that it had no emetic action whatever. After an investigation of the subject, the Council on Pharmacy and Chemistry concluded that there is no essential difference in action between "fat-free" tinctures of digitalis and the product official in the U. S. Pharmacopeia.—Journal A. M. A., March 16, 1924, p. 911.

Digifolin (Propaganda for Reform)—The claim is made for digifolin that it keeps indefinitely. The available scientific evidence indicates that all digitalis preparations deteriorate with age.—Journal A. M. A., March 15, 1924, p. 911.

ESOPHAGEAL DIVERTICULA*

By JOHN HUNT SHEPHARD, M. D., San Jose, Calif.

The rarity of any pathological condition varies inversely as our familiarity with it increases. Judd reports that prior to 1917 there had been twenty-five cases of diverticulum of the esophagus diagnosed in the Mayo Clinic, while in the year 1917 there were ten. Rokitansky, in 1840, gave a clear description of esophageal diverticula and pointed out that they were of two different types, both as to their origin and anatomic structure. The most frequent type encountered at autopsy, though rarely seen by the clinician, he named traction diverticula, and later Schmorl reported their occurrence in 3.5 per cent of autopsies. They result from contracting tissue following a peri-esophageal inflammation, usually of the tracheo-bronchial lymph glands, although they have been found as sequelae to vertebral caries, strumitis and mediastinitis. Their sac is composed of all the coats of the esophagus. They rarely attain one centimeter in diameter, and the communication with the esophagus is usually their largest diameter. When their base lies lower than their esophageal opening, food will lodge in them and they may become converted into traction-pulsion diverticula, of which Tetten has reported six cases. Probably on account of the surrounding denser fibrous tissue following the original inflammatory condition they rarely attain sufficient size to produce symptoms. They may occur in any portion of the esophagus, although their most frequent location is near the left bronchus.

The type that is of most interest to the diagnostician and surgeon develops from pressure from within the esophagus and are known as pulsion diverticula, occasionally erroneously referred to as pulsating diverticula. They are constant in their point of origin; always arising on the posterior surface of the esophagus at the pharyngeo-esophageal juncture, through Laimer's triangle, sometimes referred to as the Linnier-Hackerman area. They are in reality a hernia of the mucosa and submucosa of the esophageal wall through the weakened longitudinal muscular fibers, no muscle fibers being found in their walls. The only possible exception to the above statement of their point of origin may be three cases reported by LeCount, originating in the cavum broncho-aorticum, a small area where the esophagus is unsupported by any adjacent organ, to which Brosch first called attention in 1900. While there was no peri-esophageal inflammatory tissue adjacent to any of these, and therefore no contracting bands, there was no microscopical study made of the walls to determine the presence of muscular fibers. They were all small and had given rise to no symptoms during life.

On account of the anatomical relations of the esophagus in its upper few inches, the vast majority of pulsion diverticula burrow to the left and when developed to sufficient size present as a tumor mass just above the clavicle and lateral to the sternomastoid muscle.

Seventy-five per cent of the reported cases were in males. The average age of the patients at the time of their recognition was 56 years, and the average duration of dysphagia was 5½ years. Many patients stated that they had had slight trouble in swallowing, or a sensation of something wrong in their throats, or too-frequent coughing spells while eating, as long as they could remember. In all probability if careful attention had been paid to the date of the first symptom, the average duration of symptoms at the time of recognition would be much longer than that reported.

The first two symptoms complained of by practically all of these patients are the sticking of food in the throat, and coughing spells during eating. Dysphagia gradually develops, until nutrition becomes impaired and unless relieved death results from some intercurrent infection or starvation.

A study of the schematic serial diagrams of a gradually enlarging diverticulum explains the symptoms better than words.

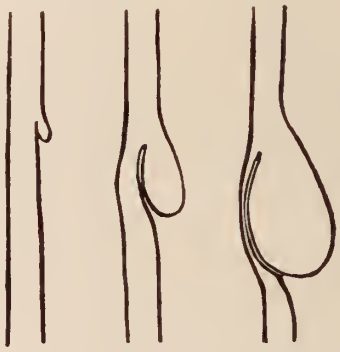

Figure 1 Figure 2 Figure 3

Schematic representation of the development of an esophageal diverticulum. Note how obstructive symptoms develop as the sac enlarges.

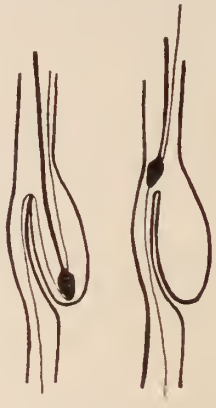

Figure 4

Showing how the bougie enters the diverticulum on a loose string, and how it is elevated and directed down the esophagus when the string is drawn taut.

Figure 1 shows a very small diverticulum and only a very slight amount of food can lodge therein; it becomes easily dislodged by coughing or a few attempts at swallowing. Figure 2 shows that when the pouch is filled the esophagus is sufficiently compressed to cause a partial stenosis. In this stage the patient soon learns that, by moving the head in certain directions or by pressure over the lower neck or upward stroking along the margin of the sternomastoid muscle, saliva and food will be forced into the pharynx and deglutition temporarily relieved.

* Presented to the Section on Surgery at the Fifty-second Annual Session of the California Medical Association, San Francisco.

Figure 3 shows a large pouch which, when filled, causes practically a complete occlusion of the esophagus. When the opening of the sac is large—and some are as large as the diameter of the esophagus—it fills readily, and these patients may have to spend the greater part of their waking hours in alternate eating and emptying the pouch in order to get enough food into their stomach to sustain life. When the opening is small and the pouch large, complete emptying is practically impossible and the retained food undergoing fermentation produces a very fetid breath. Ulceration may occur in these cases resulting in inflammatory adhesions surrounding the sac, making its removal very difficult.

The diagnosis in the larger types of diverticula can usually be made from the history of food lodging in the throat and being eructated free from the acrid taste of stomach contents, and the finding of a fluctuating swelling in the neck which enlarges on the drinking of water and diminishes upon pressure with the simultaneous expulsion of liquid into the pharynx. Not infrequently the forceful emptying of the sac is accompanied by a gurgling sound, which I believe is found in no other condition.

In the smaller types the diagnosis is made by the x-ray and the esophageal bougie. The shadow cast by a diverticulum after the swallowing of a mucilage-of-acacia and barium mixture outlines the lower portion of the sac, or perhaps the entire sac. Unlike the shadow cast by a dilatation of the esophagus above a stricture, in which there is usually seen a tail of the barium trickling through, that cast by a diverticulum shows a smooth regular outline. However, the shadow cast by a dilatation above a typhoid stricture may be indistinguishable from that cast by a diverticulum. The final and absolute diagnosis is made by the Mixter silk string technique and the esophageal bougie, as pointed out by Plummer in 1910. The patient is instructed to swallow ten to twenty yards of buttonhole twist at the rate of one foot per hour. A considerable portion of the thread will coil up in the pouch, but, eventually, which may be three or four days, a loop will find its way down the esophagus, through the stomach, and after traversing several loops of the intestine becomes firmly anchored. A perforated olive tip, on a whalebone staff, threaded on the string, and passed while the string is loosely held, will enter the diverticulum and become arrested on the bottom of the pouch. The string is now drawn taut while the bougie is steadied by the other hand, and when further traction on the string causes the bougie to rise, the level of the incisor teeth on the staff is marked. The string is then drawn until the bougie no longer rises and the position of the teeth again marked. Now, with the string held taut, the bougie is readily passed down the esophagus. The distance between the two markings on the staff gives the depth of the diverticulum. By substituting various-sized olives, the diameter of the opening into the pouch can be determined. I cannot too strongly recommend the string guide whenever an esophageal bougie is to be used, and it will find its way through any incomplete stenosis.

Partial relief may at times be secured by repeated sounding and dilatation, but the condition is primarily surgical and its early recognition will reduce the operative risk incident to the high degree of undernourishment found in too many of these patients.

Some surgeons recommend gastrostomy for those patients suffering from undernourishment, as a means of building up their strength and resistance. This procedure is practically never necessary and may of itself result fatally. The string will pass in all these cases and can be used as a guide for introducing a feeding tube. A nurse, or even the patient himself, can readily be taught to pass the tube on the string, as one of the patients, herewith reported, did for six months prior to his operation, during which time he used over 400 yards of thread, daily cutting off that portion which came through the anus.

When feeding patients through a gastrostomy opening or by the method here advised, it is very beneficial to introduce a reasonable quantity of saliva with each feeding. The physiological reason for this I will not attempt to discuss, but from a practical standpoint it is of great value.

Less than 200 cases of diverticula of the esophagus are reported in the literature though undoubtedly many more have been operated. The operative technique is simple, and if the patient has received the proper pre-operative treatment the risk is very slight, the chief danger being the development of infection, which is usually the result of soiling of the field from the contents of the sac at operation, and on account of the absence of any limiting fascia quickly descends into the mediastinum.

A liberal incision along the anterior border of the sterno-mastoid muscle permits the carotid sheath to be retracted laterally and the thyroid gland toward the midline. At times it may be necessary to ligate the inferior thyroid artery; the recurrent laryngeal nerve is usually not exposed, it being retracted with the lower pole of the thyroid. Since the sac is devoid of muscle fibers, it is easily torn and must be handled with care. After the sac is isolated, it may be dealt with in one of several ways. If one decides to do an excision, with closure of the opening with two rows of suture, it is well to introduce the first row as excision proceeds, for if the sac is completely removed before suturing is commenced it may be found quite difficult to pick up the margins as they seem to unduly retract, and the danger of soiling the wound is great.

The Sippy-Bevan reefing or tucking operation obliterates the sac without opening it, and completes the work at one operation. For the smaller type of diverticula, it is the method of choice and may be employed even though the sac be large. For the large sacs extending below the sternum a two-stage operation, as suggested by C. H. Mayo, seems to be the safest. After carefully isolating the neck of the sac it is twisted once on itself and a ligature of chromic gut applied. The wound is closed with the skin margins sutured to the neck of the sac, the sac left lying on the skin to be removed eight or ten days later. This secondary operation can be done without an anesthetic. A fistula may develop after the second operation, but this readily closes.

Immediately prior to the operation the sac should be carefully emptied to prevent the possibility of

forcing its contents into the throat, which may be aspirated, resulting in pneumonia, abscess or gangrene of the lungs. The silk thread should be left in for several days following the operation, as it may prove useful in passing a bougie for the identification of the sac during operation, and serves as a guide for passing the feeding tube while the wound is healing.

I wish to add to the already reported cases two cases seen within the last year.

Mr. B., carpenter, 62 years old. Past and family history of no bearing on present trouble. For past twenty-five years has been troubled by dry toast, lettuce, and cold slaw sticking in the throat. Past five or six years other kinds of food occasionally lodges just above the clavicle. Past three years has spit up a little food following each meal, and at times has had to wash out the throat during a meal. Weight normal. General health good.

Examination negative apart from throat. Immediately after drinking water, pressure over the left side of the neck causes about two drams of fluid, chiefly water, to be forced into the pharynx and expectorated. X-ray taken after administering a thin mixture of barium and mucilage-of-acacia shows a rounded shadow with regular margins two centimeters in largest diameter, just below the level of the cricoid cartilage. He was unable to spare the time for further examination and promised to return later, but has failed to do so. Diagnosis small esophageal diverticulum.

Mr. H., painter, 73 years old. Past and family history of no bearing on present trouble. Has always had trouble with food sticking in throat. Has always considered his throat was unusually small. About eight years ago a piece of cold slaw lodged in the throat, causing considerable coughing before it was dislodged an hour later. Following this occurrence, every few days food would lodge in the throat, to be released by coughing or drinking water. This condition gradually grew worse. About three years ago he discovered that, by rubbing upward over the left sterno-mastoid muscle, food could be dislodged from the throat with relief of the discomfort. Gradually the condition grew worse, and for the last six months he has had to spend four to six hours each day alternating eating with emptying the accumulation of food from the neck. He has lost forty-two pounds during the last ten months. Present weight eighty-two pounds.

Examination shows a markedly emaciated man. Skin exceptionally dry and parchment-like; blood pressure, 130-90; hemoglobin, 65 per cent; erythrocytes, 4,100,000; leucocytes, 6700; Wassermann, negative; twenty-four-hour urine, 200 cc. sp. gr. 1036; small amount of albumen. Physical examination negative except for the throat and moderate enlargement of the prostate. On drinking a glass of water, a tumor mass appears on the left side of the neck just above the clavicle. Pressure over this mass forces fluid into the throat with a gurgling sound, and 400 cc. was expectorated. X-ray picture taken after administering a mixture of barium and mucilage-of-acacia shows a shadow extending from just below the level of the cricoid to within one-half centimeter of the aortic arch, and seven centimeters in its transverse diameter. The margins are smooth and regular.

He was sent to the hospital and given a 10 per cent glucose in 5 per cent sodii bicarbonate solution by the Murphy drip method. He retained three quarts the first twenty-four hours. He was started swallowing a silk string as soon as he was put to bed. Being curious to see how fast he was accomplishing his object, he pulled out the string three times the first two days. On the fourth day the string was anchored in the intestine, and feeding was commenced by passing a large catheter, in which a hole had been punched from the tip to the eye, over the string. He was given fruit juices, tomato soup, broths, milk, and eggs. The glucose solution was continued per rectum for one week. The urine rapidly rose in quantity, and on the third day after feeding was started he passed 1800 cc.

Mr. H., 72 years old. Large diverticulum of the esophagus. Cured by two-stage operation.

which showed only a trace of albumen, but was heavily loaded with granular and hyaline casts. Two days later there was only an occasional cast, and the phthalian output was 45 per cent in two hours and fifteen minutes. At no time since have we found more than an occasional cast in his urine. His general condition rapidly improved. In two weeks he had gained eight pounds and, having

Mr. B., 50 years old. Small diverticulum of the esophagus. Refused operation.

learned to pass the tube himself, was sent home. This method of feeding was so superior to what he had been used to for two years, that he was inclined to let well enough alone. Three months after first seeing him, he developed influenza. Ran a temperature for ten days, and his convalescence was rather slow. Six months after coming under observation a two-stage operation was done. Ether

anesthesia being used for the first stage and no anesthesia for the second. Four days after cutting off the sac a small fistula developed, but at no time did more than two drams of fluid escape in twenty-four hours. The fistula healed in four weeks. It is now five months since he was operated. His weight is 126 pounds, a gain of forty-four pounds. He has no difficulty whatsoever in swallowing.

Growers' Bank Building.

DISCUSSION

Daniel C. Crosby (Twentieth and Webster Streets, Oakland) — Doctor Shepard is to be congratulated upon the presentation of a paper replete with information about a condition so seldom encountered that, when we do come in contact with it, we are prone to overlook it.

In the matter of diagnosis, perhaps our first and greatest resource is the x-ray, and for the making of this examination, if the patient be placed in a position on the right side analogous to the Simm's, the stomach end of the esophagus is slightly higher than the pharyngeal end and the process of swallowing is somewhat slower. Then if the patient be permitted to take a thick barium mixture through a tube or have it fed to him with a spoon, the progress of the bolus can be watched with somewhat greater ease.

After the x-ray, we should probably place the esophagoscope and then the silk twist and the tube. By the use of the esophagoscope, the size and character of the opening may be determined. In the examination with the tube, or sounds, or with the esophagoscope, great care must be taken else the diverticulum may be punctured.

In the matter of treatment, surgery stands as our first resource for cure; but it sometimes is necessary to render palliative service before doing surgery, and then experimenting in change of position or by lavage with the twist and tube, the patient can be rendered very comfortable and some improvement made while waiting for radical cure. The hollow tube with the silk-twist guide means certainly a better expedient for feeding than is gastrostomy.

Insulin as an Investment for the Patient With Diabetes Mellitus—Reginald Fitz and William P. Murphy, Boston (Journal A. M. A., February 9, 1924), point out that a broad-minded physician conserves the money as well as the health of his patients; in a sense, he is a trustee both of their bodily welfare and of their finances. In other words, a physician is not justified in prevailing on sick people to go to a great expense for diagnostic tests or therapeutic procedures which are unnecessary or of theoretical interest; rather must he advise those measures which are as safe and certain as possible and which offer the prospect, through relieved symptoms, of a good return for the financial investment involved. This point of view is particularly sound when applied to the insulin situation. The authors have followed a small group of typical cases, in an endeavor to measure what insulin has accomplished for them in terms of dollars and cents. The result of this work is reported in this paper. The material selected for this study consists of five cases chosen to represent the various types of severe diabetes most commonly seen in general practice. These cases are illustrative of the economic results in the treatment of diabetes with insulin which are being obtained in many cases throughout the country, and tend to show that, on the whole, the money spent by patients in buying insulin and in learning how to use it has been well invested and has purchased a satisfactory gain in strength and efficiency.

CLINICAL ASPECTS OF RICKETS IN SOUTHERN CALIFORNIA *

By ROBERT EWART RAMSAY, M. D., Los Angeles

Rickets is more prevalent in Southern California than is generally supposed by the medical profession. This categorical statement is my own opinion, but I have reason to believe that it is also the opinion of most of the physicians who are limiting their practice to diseases of children. The opinion of the average physician may be typified by the reply of the secretary of the medical association of one of our southern counties, who, when I suggested rickets as the subject of an address, said: "We never see any rickets. Please talk about something that we are more interested in." Now the fact is, that rickets is present in an appreciable number of patients and should be recognized. It is possible that the manifestations of the disease are not so striking as in other parts of the country, and that we need to study rickets as we find it among us in order to enable us to recognize it early enough to prevent the sequelae, which are just as serious here as elsewhere.

It is only natural to suppose that rickets should be less prevalent and of a milder sort in California. Many of the factors which have been thought conducive to the rachitic state are not of such serious import here where the sun shines practically every day, where green vegetables are available the year round, where fruits are abundant, and where the climate naturally encourages an outdoor life, and well-lighted and ventilated homes. That we should under these reasonably ideal conditions still find rickets to be present constitutes in itself a contribution to the study of this disease. I am of the opinion that a study of rickets in California will yield worthwhile results.

The clinical observations which I shall present are easily open to criticism, and the figures deduced from them are even more assailable; yet, since it is the clinical aspect which really interests us, I have considered it worthwhile to venture to gather some data on the prevalence of rickets, and its symptomatology as exhibited in recognized cases. I consider the etiology of rickets a question to which clinical observation can be only contributory. We must await results from the many trained workers who are busy in this research.

My material was obtained from two series of cases from the records of the Los Angeles General Hospital, and one series from the Anita M. Baldwin Hospital for Babies, Children's Department of the California Lutheran Hospital of Los Angeles.

The first series comprised twenty-eight cases diagnosed "rachitic" during the period from November 8, 1912, to June 1, 1920, a period of seven years and seven months. Of these, twenty were under two years of age, four between two and three years, and one of ten years. Nineteen were males; nine females. Thirteen were of American extraction, six Mexican, two negro, and one each were Italian, Jewish, Russian, Japanese, Filipino, Spanish, Austrian, and French.

The second series comprised thirty-eight patients

* Presented to the Section on Pediatrics of the California Medical Association at the annual meeting in San Francisco, June 22, 1923.

diagnosed "rachitic" during the period from June, 1920, to December 31, 1922. Of these, thirty-seven were two years of age or under, and one of eight years. Twenty-five were males, thirteen females. Twelve were American, sixteen Mexican, two each Jewish, negro, Japanese, one each Swedish and Italian, and two unknown.

The third series comprised fourteen patients from the out-patient department of the Anita M. Baldwin Hospital for Babies, representing the number of cases of rickets recognized among the first consecutive one thousand patients under twelve years examined. Eleven were two years old and under; this out of a total of 242 children of two years and under received in the clinic. Nine were males, five females, nine were American and one each Mexican and Italian, and three Jewish.

Observation on the nationality of these patients is interesting, in that out of a total of eighty patients thirty-three are American, twenty-three are Mexican, six are Jewish, four are negroes, three are Italian, two Japanese, and the rest scattered. The sex incidence was males, fifty-three; females, twenty-seven.

I attach considerable value to the figures deduced from the third series, small as it is, because every child was examined by a pediatrician. In this series, the cases of rickets discovered among the children of two years and under was 4½ per cent.

In the following table, I show the signs and symptoms upon which the diagnosis rests, and the number of times each was mentioned.

	First Series 28 Cases	Second Series 38 Cases	Third Series 14 Cases	Total 80 Cases
Rosary	17	24	6	47
Groove	3	9	8	20
Pigeon breast	2	2	1	5
Bosses prominent	10	19	7	36
Fontanel	1	5	3	9
Epiphyses enlarged	6	15	1	22
Bowing of legs	1	4	2	7
Dentition delayed	3	2	2	7
Cervical adenopathy	12	5	3	20
Abdomen large	15	13	11	39
Muscles weak	3	1	1	5
Liver enlarged	2	5	4	11
Spleen palpable	1	3	0	4
Sweating of head	0	4	0	4
Constipation	3	2	0	5

By way of comment, it is interesting to note that the diagnostic helps in the order of their occurrence are (1) beading of the ribs; (2) enlarged abdomen; (3) prominent parietal and frontal bosses; (4) enlarged epiphyses; (5) cervical adenopathy; (6) Harrison's groove. The emphasis here placed on the first three mentioned is quite in keeping with established practice. The rosary is perhaps the earliest and best of the accepted signs of rickets. The enlarged abdomen, together with a rosary, is of great value, while these two with enlarged parietal bosses constitute sufficient evidence that we are dealing with rickets. The enlargement of the costochondral junctions is known to occur in scurvy, but as this can be easily differentiated if it is borne in mind, the presence of a rosary should always suggest rickets. The enlargement of the epiphyses involves too much of the personal equation to be a satisfactory sign. The groove is a sign of progress in a well-established rachitic process. Cervical adenopathy is also a secondary manifestation. Delayed dentition, as also delay in sitting, standing and walking, are only of value as confirmatory signs. It is interesting to note the infrequent mention of sweating, which is often the cause of a parent bringing a child to the physician. Digestive disturbance also plays too small a part. As I have considered the result of this study and also the general problem involved in the need for better and earlier diagnosis of rickets, I have been forced to conclude that, as long as we are content with signs which may be classed as results, we are not going to be able to make the diagnosis early enough. Results even with similar processes are variable. If we can fasten our attention on the rachitic process rather than on the rachitic result, we shall make progress.

To be specific, I can consider the beading of the ribs only as nature's attempt to buttress a weak point, which she does by overgrowth of tissue. Why is this particular point so in need of help? Because of the peculiar breathing process of the rachitic child which is a definite process and peculiar to it and worthy of being given the dignity of a sign of rickets and the name rachitic breathing. Watch such a child and you will see that the upper chest does not move normally with inspiration and expiration, that the lower chest falls in during inspiration instead of during expiration, and that the part which moves most is the abdominal wall below the attachment of the diaphragm. An inquiry into these peculiarities so antagonistic to the normal act of breathing is very instructive. The diaphragm is the great breathing muscle, which by its contraction enlarges the capacity of the chest and provokes negative pressure within it. But the muscles of the chest wall are accessory muscles of respiration. Their action lifts the chest anteriorly, distends it laterally, and in its lower portion where the diaphragm is attached holds it tense and counteracts the pull of that strong muscle. But in the rachitic child we see a feeble lifting of the chest, an actual failure of the lateral widening, and at the region of the diaphragmatic attachment an inability to withstand the inward pull of the muscle. Hence, the peculiarities of the rachitic breathing are susceptible of explanation as a phase of muscular inability. Whatever our construction of the relation of this breathing act to the deformed chest, which is its result, I am sure that we should do well to concentrate our attention more upon the act which is so characteristic than upon the results which are so variable. Infrequently shall we find rosary, flare, pigeon breast, lateral flattening present in the one patient, but practically always do we see the peculiar rachitic breathing.

One factor involved in respiration I have not mentioned, namely, the size of the upper respiratory air passages. Obstruction here is not to be overlooked. The depression of the lower part of the chest in laryngismus stridulus, acute or diphtheritic laryngitis or in chronic enlargement of tonsils and adenoids must be borne in mind.

The effects of this faulty respiratory act are most disastrous for the health and growth of the child.

To bring in sufficient air to refresh the blood stream is difficult and attended with unusual effort. The resulting pallor and anaemia are characteristics of rickets which, therefore, need not surprise us. Again, the insufficiency of the respiratory act predisposes to respiratory infection to which the rachitic child is especially liable. Seldom do we find a rachitic chest free from signs of bronchial irritation. This can scarcely be otherwise when we consider the faulty aeration of the lungs. The grave prognosis in bronchopneumonia and whooping cough is notable in rachitic children.

Again, the labored respiratory act may be held responsible in part for the inactivity of the rachitic child. Where just to breathe at all is reasonably hard, why should the child by moving about make itself miserable.

There is still another aspect of the respiratory act which I trust will not be considered fanciful. As I have watched the anxiety, weariness, pitiable cry and distress of the child with pneumonia, who must breathe so rapidly and so steadily in order to use what little air space is available, I have recalled the rachitic child who, in his chronic unfevered condition, is working so rard to get enough air into his lungs to maintain life. I am not surprised that an effort so prolonged, so fruitless, should result in restlessness, long considered a sign of rickets, and periods of consequent reaction characterized by sweating and exhaustion.

There is another characteristic of the rachitic child, which is of extreme clinical importance, namely, the atony of the abdomen, which produces a chain of symptoms which can be recognized as diagnostic of rickets, if we give proper consideration to that characteristic of rachitic muscular tissue which I shall venture to call rachitic flabbiness. As is well known, the rachitic child may be above normal in weight, but he is always flabby. This lack of muscular tone is in marked contrast to the condition of the atrophic and marasmic infant in whom we may find decrease of tissue, but tonicity intact.

Rachitic flabbiness of muscular tissue has disastrous effects on the abdominal organs and their functions. Under normal conditions, the muscles of the abdominal wall, by virtue of their pressure on the abdominal contents, are accessory factors in the movement of the contents of the intestine, and assist in the act of defecation. When this counter-support is decreased or reduced to a minimum, as in the condition known as potbelly, the weakly condition of the intestinal musculature itself is aggravated. For this lack of muscular tone is probably as marked in the intestinal wall as in the abdominal wall. An early sign of rickets is constipation, characterized by small, yellow, pasty stools. Occasionally the evacuations become loose and offensive. This alternation of constipation, with periods of diarrhoea so characteristic of early rickets, is understood when considered in the light of rachitic flabbiness in the intestinal musculature. Thus we have lack of peristaltic force, slow and inadequate movement of the intestinal contents, incomplete bowel evacuations, accumulation of waste matter, fermentation, putrefaction, and gaseous distention, all resulting in occasional crises when the body arouses itself to a supreme effort of evacuation resulting in loose movements.

To sum up the symptoms and signs which I believe will help us to arrive at an earlier diagnosis of rickets, I would place them in this order: (1) Rachitic flabbiness of muscular tissue; (2) rachitic breathing; (3) the atonic abdomen of rickets; and would repeat my statement, that we must consider the working out of the rachitic process rather than its results. If some sign of an unmistakable character must be added to these three, let us add beading of the ribs, the earliest and best and most frequently noted indication of bony change in rickets.

Since we are convinced that bony changes are going on coincidently with other manifestations of rickets, it is cause for regret that the x-ray is not dependable as an aid in early diagnosis. Once the diagnosis has been established, the x-ray is useful in measuring progress under treatment.

The attention of the medical profession must be directed to the damaging after-effects of unrecognized and untreated rickets. For instance, the effect of rickets on the bony pelvis of the female results in a deformity which affects the adult and endangers the life of the child. In rickets, the weight of the body causes the sacrum to sink forward, so that the promontory tends to approach the symphysis, producing a shortening of the antero-posterior diameter of the true pelvis. Where lateral curvature complicates the problem, an oblique deformity is produced. In the very regions where rickets abounds, namely, in the temperate zone, dystocia, craniotomy and Caesarean section are most frequent.

Again, softening of the bone of the upper maxilla which occurs in rickets is largely responsible for the arched palate, deflection or buckling of the septum and the consequent irritative phenomena which are contributory to hypertrophy of adenoids and tonsils. The adenoid facies, without question, should suggest a deeper lying cause than difficult or obstructed breathing. An unusual pliability of the bone should be presumed.

The permanent teeth are affected by rachitic disease as early as the second year, while they are being laid down in the jaw. The teeth affected are those whose calcium metabolism is impaired while the disease is most active, namely, the central and lateral incisors, tips of the canines, part of the crown of the first molars. Defects of the enamel are also seen in malnutrition and acute diseases of childhood such as measles and whooping cough, producing pitting of the surface and early caries, which is different from the hypoplasia of the rachitic teeth.

Early rickets is a considerable factor in cases of faulty posture. In the adolescent, perhaps as the result of increased rapidity of growth and disordered metabolism; in the school child, perhaps because of the unaccustomed confinement; in the boy or girl with hypertrophied tonsils and adenoids, probably due to obstruction and toxic causes, we see the development of rounded shoulders, scoliosis, flattened chest, prominent abdomen, knock-knees and flat feet. In the third series, three cases of over two years of age were cases of this kind in which persistent signs of rickets were discovered.

Undoubtedly, this factor in faulty posture has not been given due consideration.

I have indicated only a part of the reasons why more attention should be given to the early diagnosis of rickets. As I have proceeded with this inquiry, my interest has changed from that of merely trying to ascertain to what extent rickets is clinically prevalent among us. This is very difficult to ascertain, at least in the present stage of apathy on the subject, and in view of the questions which naturally arise with regard to what shall constitute a diagnosis of rickets. How many of the accepted signs, which are many, must be present in any one case before it shall be considered a case of rickets? And when we have reached this point there arises the more fundamental question of how to recognize the rachitic process in its early stages, before the appearance of the bony and structural changes, which are its result. It is to this interesting and difficult question that I invite attention.

1026 Marsh-Strong Building.

DISCUSSION

Dudley Smith (Medical Building, Oakland, Calif.)—Doctor Ramsay's paper is of interest and his argument is ingenious and suggestive. If his experience and inferences are supported by other observers and by his own further experiences, then certainly his observations of respiratory peculiarity will bring a definite and valuable sign of early rickets to the aid of the practitioner. His observations on the incidence of rickets in California can be confirmed by anyone who deals much with children, and they are quite in line with the growing experience of clinicians everywhere.

Minor degrees of the disease are common in all regions, under all circumstances of life, and with all methods of feeding. The writer's explanation of the beading of the ribs in rickets is ingenious, but I think improbable.

Robert Hutchinson years ago stated that the bony changes in rickets could be epitomized in a phrase: "Overpromise and underperformance of bone growth"; that is to say, excessive production of cartilage which fails to become adequate bone. The explanation would seem to be as true for the rib epiphesis as for the long bones, and explains as well the bossing of the flat bones about their centers of ossification.

Langley Porter says that it always seemed to him possible, in many cases of rickets, to identify the very early stages of the condition with that of the clinical picture described by Finkelstein as "balance disturbance," but that the identification ought to rest on radiographic and chemical proof rather than on clinical, for there are many symptoms commonly ascribed to the rachitic process which are very often, if not always, due to some other agency. This is especially true of the Harrison groove, of curved tibia, and of cranio tabes.

Doctor Ramsay is to be congratulated for his painstaking and stimulating attitude in the study of rickets in California.

Doctor Ramsay (closing)—I have called attention to the prevalence of rickets in California. I have sought to emphasize certain early clinical signs of diagnostic value. In keeping with the spirit of preventive medicine, we should endeavor to recognize and to treat rickets early in its course, in view of the costly deformities and incapacities which are the result of neglect.

THE CORRECTION OF EXTERNAL NASAL DEFORMITIES

By J. PAUL de RIVER, M. D.
(From Eye, Ear, Nose, and Throat Section, United States Marine Hospital, San Francisco)

In approaching the subject of corrective rhinoplasty, the essential point to be considered is the anatomical variance from the normal that warrants surgical correction. This clearly understood, together with a thorough knowledge of the structural anatomy and the application of rigid surgical technique are important factors. Having taken care of these essentials, the result in a large majority of instances will be all that can be hoped for, as in any other branch of surgery.

The deformities encountered are varied: the hooked nose, the overhanging tip, the saddle-backed nose, the African nose and lateral deformities. Each in itself presents a distinct mechanical problem to tax the ingenuity of the surgeon, who, before attempting operative procedure, should examine the case from all angles, not only as to the mode and method of attack for the correction of the deformity, but should thoroughly search for the etiological variation from normal. Anatomical variations due to traumatism should be separated from those changes resulting from constitutional disease, such as syphilis, for by so doing much can be hoped for as to prognosticating the ultimate result. Diseased conditions of the para-nasal sinuses should be sought for, and rigid treatment carried out before undertaking operative procedure.

The choice of the anesthetic is of no great importance. Local or general may be used with equally good results. However, I frequently am in the habit of leaving this question to the decision of the patient. For brevity I will outline the operation as performed under local anesthesia. The operative technique is applicable to all forms of deformities. The patient is placed in a semi-recumbent position, and draped for operation. The cilia at the nasal vestibule are clipped with fine scissors. The mucous membrane of the nose is painted with 10 per cent solution of cocain, to which is added a few drops of adrenalin chloride. The external nose is then painted with tincture of iodine, which is carried well over both cheeks, up between the eyes, and down over the upper lip, and the excess removed with alcohol. The next step is the cleansing of the interior of the nose. A swab of pure alcohol is inserted into each nostril and passed over the mucosa. The injections are then made, a one-half of 1 per cent novocain solution is injected subcutaneously beneath the mucous membrane covering the septum. This is done first on one side of the septum, and then on the other. The needle is then inserted in the region of the lateral cartilages, where further injections are made. The attention is next turned to the anesthetization of the external nose, where four injections are made: No. 1 directly over the bridge of the nose; No. 2 directly on the tip; No. 3 and 4, respectively, on either side of the nose, well out over the maxillary bones.

Having completed these steps the surgeon begins

by making an incision along the pyriform opening of the nose. Beginning at the nasal bone the incision is carried downward and outward through the mucous membrane and chondro-osseous junction. A periosteum elevator is passed through this incision and inserted between the periosteum overlying the nasal and maxillary bones, and the bones are swept mesially and laterally separating periosteum, subcutaneous tissue and skin from the bone. This freely liberates the entire area extending from the root of the nose over the nasal bones and superior maxillae. A second incision is then made, beginning at the lower end of the nasal bone; it is carried downward and forward along the anterior edge of the septum to the tip of the nose. This incision is parallel to the bridge of the nose, and is carried through the cartilage up to the perichondrium overlying the nasal bridge; then by means of dissection the perichondrium and soft tissues over the bridge of the nose and lateral cartilages are separated from the underlying bony and cartilaginous septum and lateral cartilages. A third incision is made from one nostril to the other. Starting at the tip of the nose at the end of the second incision, it is carried backward along the lower border of the quadrilateral cartilage to the nasal crest of the superior maxillary bone and through the mucous membrane and cartilage. The fourth incision is made through the lower lateral cartilage at the point where the cartilage bends upon itself. Having completed these incisions, one is able to correct all types of nasal deformities.

SADDLE-NOSE OR FALLEN BRIDGE

The operative procedure in this case depends upon the elevation of the nasal bones, together with the filling in of the depression with a graft of either rib cartilage trimmed to the desired size, or a portion of a turbinate bone. A chisel is introduced into the nose, and the nasal bones are detached freely from the frontal process of the superior maxillary bones and from the nasal process of the frontal bone. Elevation is then made sufficiently to raise the bridge of the nose. A piece of turbinate bone, denuded of all save its periosteum and trimmed to the proper size, is then inserted between the anterior edge of the bony septum and nasal bones, and is maintained in place by means of a padded metal splint and adhesive plaster. Within three or four days the graft becomes fixed, and in four weeks complete organization as a rule.

Humped or crooked nose is corrected by means of the saw and rasp operation. The nasal bones are shaved down to the proper level, and the protruding bony and cartilaginous septum trimmed off with scissors or scalpel. The overlying skin is then moulded into position to overcome the widening which frequently results after the removal of the hump. By means of forceps the remaining portions of the nasal bones, with the frontal processes of the superior maxillary bones, are forced inward into the desired position; the splint is then applied externally to maintain them in place.

LATERAL DISLOCATIONS

Before attempting to correct this type of deformity a resection of the anterior part of the bony septum should be performed. This accomplished, the nasal bones, together with part of the frontal processes of the superior maxillary bones, can be dislocated by means of a chisel and then swung into the median line. Great care should be taken in exerting side pressure for fear of possible fracture of the cribiform plate of the ethmoid.

In concluding I wish to say that the post-operative care in these cases is of great importance. The results achieved will depend largely, not only upon the proper observance of asepsis during operation, but also upon the care of the nose during the convalescent period. Much has been said for and against this type of surgery, but to quote the sayings of a well-known European authority: "While outer deformities, like blindness and lameness, arouse our pity, a misshaped nose arouses ridicule."

DISCUSSION

William J. Mellinger, M. D. (San Marcos Building, Santa Barbara)—The correction of external nasal deformities is a very important subject and one that requires a great deal of highly developed surgical skill and artistic ability. In the first place, I always make a cast of the entire face and stereoscopic photographs of different poses. These can be studied even though the patient is not present, and they serve as an exact record of the case which can be compared with the end-result. If a nose requires more than one operation, as is often the case, the pictures are taken at various stages to show the progress by steps. If the deformity is an acquired one, a photograph taken before the injury is of great advantage in judging what is required.

De River makes the statement: "The choice of anesthetic is of no great importance." I am greatly in favor of a general anesthetic, as the introduction of needles and solution in or near the field of operation without doubt increases the danger of infection. A rib graft, if necessary, is accomplished more satisfactorily under general anesthesia.

The interior of the nose should be made as nearly as possible surgically sterile, then packed beyond the incision line with iodoform gauze, which is left in the nose for several days.

Concerning the graft—I first make a model of the proposed graft, of metal, which can be sterilized and inserted after the bed is prepared; by so doing the graft can be trimmed to the proper size. It is particularly important that the graft be not introduced more than once; in other words, it should not be withdrawn after it is once in place. Forceps should always be used in handling the graft. The most ideal material is an autogenous graft from the rib. I am opposed to the use of the turbinate bone for the following reasons: (1) A normal turbinate should not be removed; (2) difficulty in preparation of the graft; (3) greater danger of infection.

In humped noses, if the hump is not too sharp, a wedge of bone removed from the frontal processes of the superior maxillary, and the dorsum depressed to the proper level, gives the best result. This does not disturb the width of the dorsum.

George Warren Pierce, M. D. (Flood Building, San Francisco)—In cases of humped nose with broad bridge, and this is the commoner type, I prefer to make an incision through the membranous septum, bringing the knife out through the base of the columella. The columella is then deflected upward and a periosteal elevator is passed between the mucous membrane of the two sides of the septum and up over the nasal bones. After the subcutaneous tissue in this region is freed, narrow right-angled retractors are inserted and the operator obtains a direct view of all the structures to be attacked. With a

narrow sharp chisel a triangular section of the nasal bones, with the base down, is removed from the median line, and as much of the upper border of the septum as is necessary to obtain a corrected line of the bridge. The nasal bones are then fractured medialward, using a broadnosed hemostat. The above procedure accomplishes two things—the hump of the nose is removed, and the bridge is narrowed, avoiding the undesirable flattening and broadening of the bridge obtained by the rasping operation and which is especially noticeable with an already broad nose. Moreover, the operation is accomplished in a thoroughly surgical manner, as all work is under the operator's eye and, most important of all, the danger of infection is minimized, as the nasal cavity is not entered at all. This avoids the necessity of packing, which is most uncomfortable to the patient and is attended with some danger, as it may favor a sinusitis. The resulting scar at the base of the columella is practically negligible.

A suggestion regarding cartilage for transplant which some of you may have folowed, but which will bear repetition, is to bury the spare cartilage in the subcutaneous tissue of the abdominal wall. It remains there unchanged and obviates the painful reoperation for obtaining a new piece, if by any chance the first graft should fail.

For maintaining the alignment of a laterally dislocated bridge after correction, I prefer to use a cap splint on the upper incisors with a strong, springy wire extending outward and then upward and terminating in a flattened vulcanite pad. The amount and direction of the pressure applied can be accurately controlled and can be easily and quickly changed. The apparatus is light and comfortable and, in my experience, is superior to a plaster mold or an ordinary metal splint, from the standpoint of both the patient and surgeon.

Doctor de River (closing)—The technique used by Pierce I think is very good. A similar technique, I believe, has been described by Major Gillies of England, and more recently by J. D. Lewis of Minneapolis in a recent number of the "Annals of Otology, Rhinology and Laryngology." The burying of cartilage in the abdominal wall in cases where there may be future use for the cartilage is advisable and is a custom that I have followed many times. Mellinger mentions the fact that he always makes a cast of the face before operating; this, too, has been a routine procedure that I follow in all cases. I endeavor to make a replica of the entire face before attempting any operative procedure; this enables me to study the case from all angles. On completion of the operation a recast is made.

As to the choice of anesthesia I have not considered this question of great importance, perhaps because I have done such a large number of cases under local anesthesia and feel that I can secure perfect anesthesia by the local method with a minimum of shock and risk to the patient. I quite agree with Mellinger regarding the withdrawal of the graft after it has been introduced; the avoidance of the practice lessens the chance of carrying infection back into a sterile field. Forceps should unquestionably always be used when handling a graft. Too much cannot be said regarding the avoidance of digital manipulation of the graft.

Conclusion—In all cases surgical judgment, coupled with an artistic temperament and an anatomical familiarity with the parts to be corrected, is the sine qua non of success. Whether using grafting bone, cartilage, or using celluloid as a supporting bridge, as suggested by some operators, matters not, provided the operator possesses the skill and patience required of all undertaking this type of surgery, for when the curtain falls at the grand finale the success of the performance is judged by one word, and that is—results.

INFLUENCE OF PILLOW HABITS ON THE DEVELOPMENT OF THE UPPER JAW*

By HARVEY STALLARD, D. D. S., San Diego.

INTRODUCTION

A common facial deformation, due principally to pillow habits, is marked by a narrow upper jaw, a large mandible, a contracted palate, a narrow nose, and a deflected nasal septum. Since the dental arches and jaws form a great part of the face, this type of deformity has been designated by dentists as "narrowed upper jaw," "Gothic arch," "V-shaped" or "church roof" palate, etc. Faces having such oral features are referred to as "dished," "bell," or "urn" faces. When the deformity is confined to one side, the cheek is flattened or depressed, making the face seem twisted or "lop-jawed." The compression of one maxilla makes the jaws appear to close crosswise, hence the malocclusion is called a cross-bite.

OCCURRENCE OF THESE DEFORMITIES

"Dished" and "twisted" faces are often associated with impeded speech and disturbed nasal respiration so that they were probably noticed by observers of early times. However, earlier descriptions of oral or facial deformations have been so brief and indefinite that it is impossible to determine whether ancient writers refer to these two types of prognathism. Their greatest frequency has been in the colder parts of the north temperate zone, occurring more often among those of English descent. They are found among Italians, Brazilians, Australians, Chinese, Filipinos, Russians, and to a more limited extent, perhaps, in all other civilized peoples.

THEORIES OF THEIR CAUSES

Idiocy and Heredity—The first medical writers to discuss causes of these two malformations believed they were symptoms of idiocy (Downs: 1871; Ireland: 1874). This assumption was combated by Kingsley (1879), who after examining many idiots of different nationalities, said that idiots had no more irregularities of teeth than any other class, and concluded that their oral deformities were due to family traits.

Such malformations have been attributed to heredity because they are often traceable back in families and in members of the same household may be strikingly similar. The most popular doctrine taught is that, through mixing of many races, a child would inherit large teeth from one parent and small jaws from another, or a small palate from one and a large mandible from the other. Another belief, once regarded as the most scientific, was that contracted palates and jaws result from disturbed innervation, neurosis, and evolutionary reversions (Talbot: 1903; Ballenger: 1911).

Rickets, Trauma, Mouth-breathing, and Endocrine Disturbances Suggested—Rickets has been suggested as a cause by many writers (Bosworth: 1889; Ballenger: 1911), but it was early denied by Shaus (1887). Bosworth believes many contracted palates were due to mouth-breathing, which, he imagined, was caused by partly occluded nostrils resulting

* Read before the San Diego County Medical Society, May 22, 1923.

from inflammation following accidental trauma. Wallace, enlarging upon the influence of mouth-breathing and poor mastication, stated that constant mouth-breathing allows the tongue to lie in the floor of the mouth, away from the palate, so that its lateral influence is less than that of the cheeks; this, he claimed, atrophies the upper jaw and overdevelops the lower, so that with poor mastication and infrequent closure, the upper teeth and their alveolar processes developed downward unrestrictedly, resulting in long teeth and the high, narrow palate. Recently, disturbed endocrine organs have been held responsible for oral deformities.

Mechanical Explanations of Their Development —Farrar (1888) believed a cross-bite was due to one of the following causes: (1) incorrect antagonism of teeth, (2) a too short ramus of the mandible on one side, and (3) a faulty location of the glenoid fossa. Angle (1911) attributed the beginning of these deformations to the child sucking the cheeks habitually, but the development (1907) to the perverted forces transmitted through the teeth.

Pillowing on the Face in Infancy Suggested—Marshall (1913), reporting correction of a badly deflected nose, so often characterizing "twisted faces," suggests pillowing on one side of the face in infancy as a cause. Case (1921) attributes development of cross-bites to infants lying and nursing too much on one side of the face.

The writer's attention was called to cross-bites in 1918 by John C. McGuire, D. D. S., who suggested that they were caused by pillowing always on the same side in infancy. In 1920 Angle suggested as the cause the child's habit of pillowing its cheek on a hand. The same year Spencer Atkinson, D. D. S., reported a case in which he had observed this method of pillowing to be a causal factor.

INVESTIGATION OF PILLOW HABITS

Location of the Work — This account is based upon studies of several hundred subjects of Southern California which were found in schools, preschool clinics, industries, hospitals, homes, asylums, streets, private practices of Los Angeles and San Diego.

Method of Investigating—At first the writer relied on what the patients said about their method of pillowing. Among the first patients examined was one having a much contracted palate. His mother said he always slept on his abdomen, keeping his fists under the pillow with the knuckles upward and resting his cheeks alternately on the mounds made in the pillow. On each side, the arrangement of his upper teeth showed the imprint of his knuckles. Other patients having cross-bites admitted pillowing their cheeks most of the night on a hand or arm. When a parent did not discover the habit, a visit was paid the child's bedside. The most convincing evidence was obtained by studying sleeping children. Subjects having nearly normal jaws do not have these pillow habits.

General Evidence—The main fact to interest the writer in these two types of malformations was their frequent return to former conditions even when treated by the best of orthodontists. Corrective treatment is often prolonged by the orthodontist working unaware of the habit; when it is discontinued treatment is rapid. No matter how well treated and mechanically retained, the teeth will return to their former alignment if the habit is not stopped, but where it is broken the treatment is successful.

It is possible to identify these malocclusions by the contour of the faces, to diagnose pillowing habits by the arrangement of the teeth, and to predict the kind of deformity by knowing the habitual malposition of the face during sleep.

Origin of Wrong Pillow Habits—Many histories show that a child, when compelled to lie for a long time on one side, on account of an abscess, injury or burn on the other side of the body, will vary his position to obtain rest and will occasionally put the hand between the cheek and pillow. Some began the habit during long attacks of pneumonia and pleurisy. The habit is sometimes associated with sucking of thumbs or fingers. A patient having a bilaterally constricted palate started the habit after becoming bedfast through infantile paralysis. A woman suffering in early childhood from conjunctivitis, procured most comfort during the day by burying the forehead and eyes in a large pillow; by resting the cheeks on her hands, she prevented smoothering, but started the habit.

Its beginning cannot always be traced to an illness, abscess, burn, or injury, or even to a change in bedding or position of the bed. Some attribute its commencement to face-pillowing initiated by parent or nurse. The following shows how open to suggestion a child is: One day a child was shown some photographs of children pillowing their faces on their hands; she was impressed and began the habit, which her mother stopped only by determined efforts.

It is impossible to find a constant relation between the effects of these habits and rachitis and, conversely, evidence that rachitic children are predisposed to such habits. When they appear in members of a family, those affected have similar pillow habits. It seems reasonable that the habit is handed down by instruction or imitation, rather than through heredity.

Observations on the Development of the Habit—Some infants who habitually sleep on their bellies have shown marked effects of pillowing on the hands. Older children and many adults, among them several dentists, with more pronounced malformations, observed while asleep, were found pillowing on their hands or arms. The most typical V-shaped palate found was in a physician who sleeps on the abdomen, resting his cheeks alternately upon mounds in the pillow made by his arms, one of which he keeps under the pillow at a time. When he was a child a dentist tried to expand his upper jaw by transverse jackscrews, but so much pain was caused at night that treatment was abandoned. Men of 65 or more having cross-bites were found pillowing on one side as in infancy. These habits originate early in life amid many different conditions, continue often through adolescence and into advanced age; in only a few did the habit start after the twelfth year.

The Inertia and Nature of the Habit — Many

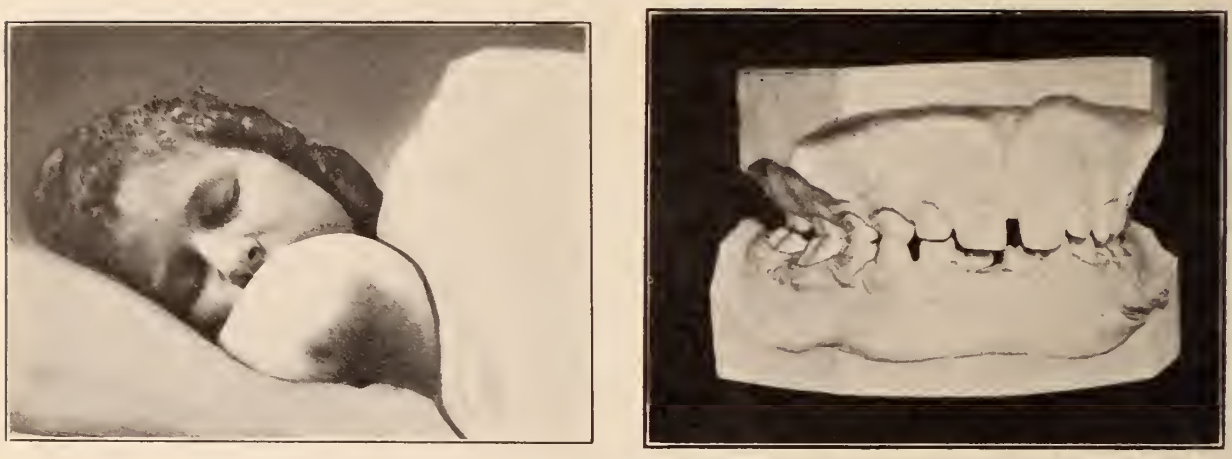

Figure 1—A typical cross-bite, unilateral constriction of the upper jaw.

times while studying sleeping children the writer tried to make them rest directly on the pillow, but no matter how sound asleep, they resist change and replace the hand to its habitual position. When told, while awake but unaware that they are being experimented upon, to lie first on one side and then on the other, their habitual pillowing habits dominate. Patients lying on the normal side, when told to turn over quickly, usually select the habitual pillowing method, automatically placing beneath the deformed cheek the preferred arm or hand. Comfort for these patients is obtained by indulging the habit; on requiring discontinuance of the habit, discomfort and a few sleepless nights will be experienced before they become adapted to new positions. Since pillowing is comfortable and habitual, it has great inertia.

Amount of Force and Length of Time It Acts—Children are in bed fully half of their lives; if they lie on their faces much, development of the jaws will be repressed. Any small constant external force will in time produce damaging imbalance in such a complicated organ as the mouth. But we have here a force, derived from the weight of the head, acting on the plastic bones of childhood throughout the greater part of each twenty-four hours, and, as case histories show, many children suffering from these deformations have been confined to bed for longer periods during which the force has continued for a greater time. It is well known that a letter-carrier's spine becomes deformed by carrying bundles constantly on the same shoulder. Similarly, facial depressions may be developed by pillowing the face habitually upon hard objects.

Normal Breathing and Vigorous Mastication Insufficient—If a normal breather pillows alternately on his right and left arms, he may have both dental arches narrowed, or if infants rest habitually on just pillows, their deciduous dental arches will be narrowed and their permanent anterior teeth will be rotated and "bunched." Parents have been known to give their children hard foods, remove their tonsils and adenoids, taking every precaution to avoid malocclusion except preventing face-pillowing, yet their children have narrowed dental arches and crowded anterior teeth, due principally to pillow habits.

When teeth are fully erupted and interdigitate normally, the tongue, filling the mouth cavity, presses outward on them, the alveolar processes and the palate, while the lips and cheeks bind the structures on the outside, preventing too great expansion. If the mouth be closed most of the time, or during swallowing, so that the opposing cusps interlock, the muscles of mastication and the hyoid muscles keep the lower jaw in position, indirectly protecting the upper dental arch against pillowing. While pillow habits damage the normal arrangement of teeth,

Figure 2—A typical bilaterally constricted upper jaw, a Gothic arch.

Figure 3—Effect of pillow force on the upper incisors.

even when breathing and swallowing are normal, greatest damage is done to a mouth-breather before the age of six, since worn, deciduous teeth, by not locking firmly, afford the jaws very little intermaxillary bracing.

Relation of Mouth-breathing to the Deformities —Masticatory forces are responsible for the main development of the face; if not suspended for long intermissions by mouth-breathing they protect the face from being indented. The unexhausted boxer keeps his jaws firmly clenched, for it requires only a slight jar on a depressed jaw to cause discomfort or to stave in upper teeth when the mouth is open. Breathing through the mouth at nights, so common among children of congested cities, suspends the protection afforded the upper jaw by occlusion; if during sleep the head's weight presses the cheek upon a hand, the alveolar process will be deformed. In mouth-breathers, the mandible moves to one side in pillowing, but the upper jaw being immovable and unsupported by any muscle cannot escape the pressure. Children having this habit often do not close their teeth in swallowing, but tuck their tongues out between the front teeth to effect air-tight closure necessary for deglutition. In this the tongue cannot maintain the normal width of the upper jaw, and even where there is no perversion of tongue forces, the palate is contracted by the pressure.

Variety of Wrong Pillowing Habits. — There are numerous varieties of wrong pillowing habits. Perhaps the most common is illustrated in Figure 1, where the wrists and forearm are placed between pillow and cheek. This habit presses in all the upper teeth from the canine back, producing the typical cross-bite. When the hand alone is employed, the malocclusion is limited to fewer teeth, principally molars and bicuspids. In rare cases the child may suck the thumb or finger of one hand and rest its face on the back of the other, which produces constriction of the upper jaw on one side and an arrangement of incisors to accommodate the thumb. Figure 2 shows a child who lies on the abdomen and pillows on the back of one hand and an arm; when she turns over she assumes a similar position; the arrangement of the teeth shows the effect on the upper jaw. A child may lie on the abdomen, keeping one hand on top and the other underneath the pillow, with the cheek on the one above, and on turning over exchanges hands. In such a case one side is usually favored. In simple oral deformities where the hands are kept under the pillow or where the pillow is rolled, both dental arches are narrowed as in Figure 3. Figure 4 shows the effect of a pillow habit on the arrangement of incisors. Thus, the hands may be kept under the pillow or under the cheek or one in each place. The variations in breathing habits, together with those in pillowing, make the descriptions, classifications, and diagnoses of sleeping postures complicated.

CONCLUSIONS

The writer would like to emphasize from a dental standpoint the sound advice given by careful pediatricians, namely, that infants invariably rest more contented on the cool, straight hair mattress than on or in a hot depressed, ill-ventilated feather bed and pillow, and that constant turning is conducive to the highest cranial symmetry. So far as

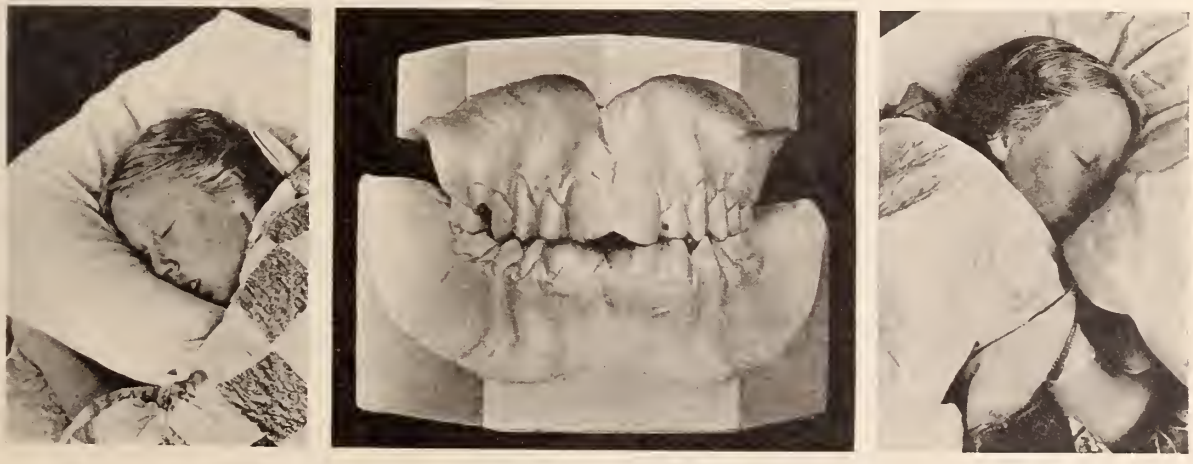

Figure 4—The upper jaw is more pointed and narrow than the lower, the child uses two pillows, breathes through the mouth and while lying on the stomach turns from side to side.

the denture is concerned, various postures can be safely assumed if pressure is not applied to the face, if breathing is normal and both hands and arms are kept away from the head. It is best to make a child lie straight, first on one side, then on the other, pillowing on the cranium, health permitting. The highest oral symmetry may be obtained by the baby resting part time on the back, then on the sides, and seldom on the face, in the absence of pillow or its substitutes. Pillow habits originate in many different impulses and amid many different conditions of child life. Whatever habit is acquired in infancy is apt to be continued indefinitely and be reflected in the various upright postures. Any sort of facial pillowing is to be discouraged, for it is responsible for at least 20 per cent of oral deformations, the most marked malocclusion being the result of pillowing on parts of the upper extremities.

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DISCUSSION

Robert G. Sharp (Watts Building, San Diego)—Notwithstanding the fact that careful pediatricians habitually advise mothers to bed their infants on cool, straight hair mattresses without pillows, it behooves not only these careful pediatricians, but all medical men who give advice to young mothers to carefully read and make use of the investigations and conclusions set forth in this paper. I heard Stallard give his original paper on this subject and have followed his work with interest and enjoyment. There is no question but what this is a very much worthwhile piece of research. Doctor Stallard's investigations have extended over a long enough period of time, and he has considered enough cases to make his conclusions of real scientific value. These conclusions with a modified terminology should be so impressed upon every mother before pillowing habits are formed, that she will see to it that there takes place no facial deformations in her offspring. While there is no doubt but what other factors enter into the productions of facial deformations, the writer has emphasized not only one of the important ones, but what is more to the point, one which lies entirely within our control.

Of particular interest is the truly scientific spirit in which Stallard has pursued his researches. Far into the night has he stolen upon his unsuspecting victims and observed them all unaware in their natural habitats.

Arteriosclerosis in Thyroid Deficiency—Arthur M. Fishberg, New York (Journal A. M. A., February 9, 1924), asserts that various anatomic, experimental and clinical findings point to loss of the thyroid secretion having among its consequences injury to the vascular system. This connection seems to be definitely demonstrated in the case reported by him. The patient presented two seemingly discrete symptom complexes, an anatomic equivalent for each being found at the necropsy: (1) A hypertensive syndrome with a diastolic blood pressure of 135, cardiac hypertrophy and cerebral hemorrhage; corresponding to this there was found at the necropsy generalized arteriosclerosis and beginning primary contraction of the kidneys. (2) Sudden onset of adiposity of a peculiar distribution with retardation of skeletal and more particularly genital development, as well as abnormal distribution of hair. These phenomena point unequivocally to an endocrine disturbance, and at necropsy there was found a very extensive atrophy of the thyroid gland, with no other evident anomalies of the endocrine organs. In this case not only were the larger vessels atheromatous, as in the ordinary senile arteriosclerosis, but also the arterioles in the various organs were thickened.

TOXIC DERMATOSES

By O. V. SCHROETER, M. D., Los Angeles.

The term toxic dermatoses would embrace all lesions of the skin caused by toxic matter. I shall confine my remarks to but a certain group of these affections which are of an endogenous nature. In such the changes in the skin are, therefore, but imprints on that outpost of the organism, the cutis, of a turbulence within the same. These manifestations are really as much an affliction, yea more so, of the whole organism than of the skin itself. These dermatoses are the pictures on the skin produced by toxic substances in the blood, the result of pathology in the terminal circulation which finally gives up to the light of day an evidence of the organism's reaction.

As with surgery, much that now finds place in dermatology by virtue of pre-eminent symptomatology and location, as well as by virtue of our ignorance of the finer changes in the highest realm of pathological chemistry and anatomy, will, with a later day become a part of mother medicine herself. We must remove what we cannot cure. Urticaria is but a symptom, as is asthma, as is purpura, as are the exanthemata. The latter, too, are toxic dermatoses, but belong more to clinical medicine.

The group I desire to consider here is one of very great interest. There are two or three ways of grouping its members. A simple and practical way is by that of degree.

The Urticarias—This is the mildest dermic toxic manifestation. Its characteristics are familiar to all of you. There is a classic entity called the wheal—a pinkish or pinkish-white, irregular, more or less hard, elevation with the subjective symptom of itching and the marks of skin insult by scratching. There is no inflammation in the complete sense. Suddenly there has come into the terminal circulation a toxic material which has caused an angioneurotic condition. Recent investigation goes to show that, contrary to former belief, the capillaries have the ability to contract, become smaller on high internal pressure and take on various abnormal shapes, uneven dilation and contraction in angioneurotic conditions. This ability to contract is now found to be by virtue of fine branching muscle cells which encircle the tube and which, on contraction, tend to close the lumen; these are the Rouget cells. Formerly, capillary contractility was explained in terms of endothelial swelling. It is found the Rouget cells receive fibres from the sympathetic—stimulation causing contraction, and section—dilation. Dilator fibres run along the posterior route which explains, by reflex, the phenomena of herpes zoster.

The histo-pathology of urticaria is simple. I quote from Ehrmann: "The histologic examination of a wheal gives as the basis of the process an edema. The lymph vessels are widened. The fine fibrillary striping of the connective tissue disappears. The tiny vessels of the superficial plexus appear contracted, and those of the lower plexus widened and filled with blood. The epidermis is normal and the interspinal spaces show no widening."

There we have it—an anaphylactic reaction acting on the sympathetic innervation of the terminal vascular system causing localized dermic edemic

spots. In the morning they are gone. Toxemia has here its mildest manifestation. Anaphylaxis, Rosenau defines as "a condition of unusual or exaggerated susceptibility of the organism to foreign proteins." We see the reaction of urticaria after the injection of the various serums and after absorption of certain food products. The dark curtain falls when we seek to understand the finer chemistry of these substances swept by the plasma into the terminal circulation of the skin.

In the urticarias we have, therefore, as Auspitz states, a dermatosis with the character of a widespread disturbance of vascular tonus, together with more or less pronounced inflammatory raising of the skin surface. When from bacterial or other toxins we have a severer reaction, we enter the acute inflammatory stage characterized in a general dermatologic way by the term:

Erythema—Scarlet fever might be called generalized erythema, an erythema caused by the toxins of a group of the pus cocci as yet not definitely isolated. There are flat red patches as the simplest manifestation, often caused by drug or food poisoning. In the type known as erythema multiforme there is conglomeration of papules, wheals, and vesicles localized on the hands, the feet, the mouth—in other words, the more distant areas of the terminal circulation.

The histopathologic picture now passes from simple angioneurotic swelling to actual inflammation. There is a dermatitis. The reaction is more severe, ergo, the toxin was greater in severity. There is edema, the intercellular spaces are widened, the epithelial cells swollen and enlarged. About the vessels of the rete subpapillare, as well as about the capillaries in the papillae, there is an inflammatory infiltrate.

Symptomatically, we will find itching and burning; the patient will or will not have, depending on the character of the offending toxin, fever, malaise, joint pains.

There will not be an overnight amelioration. We have no longer simply angioneurosis; we have vascular insult, infiltration-exudate and through days or weeks of a nuance of red, purplish coloration, an eruption of this character will gradually subside. If it is seasonal, the toxemic manifestation will return periodically. We have more than a problem in dermatology; we have a problem, and a deep one, in internal medicine. What and where is the toxin? I confess, at times, the problem has been baffling. A recent case in a husky truck driver defies solution as to source of the bacillary or protein or chemical toxin.

Beyond angioneurosis and inflammation, there is conceivably one further degree of histopathology in this classification of toxic dermatoses. In the urticarias, we have shown the existence simply of loss of vessel tonus and some edema, and in the erythemas we have shown vessel congestion, exudation and vessel-wall insult, but with good repair in both cases in reasonable time. Let us step a grade further in the inflammatory category, and we have the serious pemphigus type—the inflammatory edema raising the upper surface of the skin.

But beyond actual inflammation, there is a further grade of actual hemorrhage into the skin, a total breaking down of the vascular wall as a barrier between the tissue of the skin and the vessel itself. This type embraces the

Purpuras—The day has passed when purpura has been conceivably of a neurotic etiology. It is always, except in the simplest types, gravely toxic, even if it does not eventuate in death. To this class belong peliosis rheumatica, the purpuras following the septic fevers, and purpura hemorrhagica, that fatal condition which defies solution as to etiology.

Clinically, the patients present a serious, sometimes terrifying picture. Purplish red spots appear on the extremities only or all over the body, and with or without bleeding from the gums, the kidneys, and even into the brain. Although the latter, as if nature would conserve, is almost always spared. The systemic disturbance may show fever, arthritis, the symptoms of a grave septic infection, or the patient may appear with a widespread purpura in a state of surprising well-being, save for the weakness attendant on loss of blood.

The histopathology is simple. There is the picture of exudation of the blood itself into the tissue. Between the connective tissue fibers we find red blood cells and the broken-down products of the hemoglobin which, of course, accounts for the nuance of red, yellow, and green in the spots on the skin. Endarteritis and thrombosis is seen, and in some cases an actual rupture of the vessel wall. The picture gives, of course, no clue as to cause.

Sternberg has recently among many others made studies of the blood pictures which have focused interest in this type of skin disorder. He has divided the purpuras into (1) those with fever and anaphylactic manifestations and a normal proportion of blood platelets, and (2) purpura without fever, but with thrombopenia. Much attention has been given the role of the blood platelets. Their possible role with regard to the coagulability of the blood in these cases has been gone into, and with the result that we find we still are ignorant as to the finer changes which eventuate in this phenomenon. It is stated that the blood platelets are an important source of prothrombin which is required for the formation of thrombin. Coagulation equals a combination of fibrinogen and thrombin.

Now, strange to say, in purpura hemorrhagica, the coagulation time of the blood is not prolonged or is prolonged very little. Prolonged clotting does not run parallel with reduced platelets. While the normal platelet count is 200 th to 400 th, it may be reduced to as low as 60 000 in severe pur hem. The amount of bleeding, too, is not always paralleled by the reduction. But the characteristic thing about the clot in purpura hemorrhagica is that it does not retract in the normal manner. While the factor common to all cases of prolonged bleeding, hemophilia and the purpuras, is not known, a diminished platelet count is nearly always present in purpura hemorrhagica. Thrombopenia alone does not explain the hemorrhages, but there is another factor—anaphylactoid, toxic and, as in scurvy, deficiency diet as the basic cause. What is the blood chemistry here? What fine changes occur in the constituting substances of the plasma or what mystic

toxins elusive to our touch and present powers are swept into the finer circulation to make this grave dermatologic picture? These are questions yet to be solved. When they are solved the purpuras will know a different name and will have joined mother medicine.

1002 Union Bank Building.

DISCUSSION

Moses Scholtz (Brockman Building, Los Angeles)—The subject presented is of great interest both to the dermatologist and to the internist. I wish to acknowledge a splendid presentation of the pathology of various grades of skin reactions to toxins. I am in thorough accord with the basic idea of the paper, that various toxic dermatoses are merely skin reactions to some systemic irritant or toxin, infectious or metabolic in origin. I heartily endorse the attitude of the writer emphasizing this special point of view over merely technical morphologic differential diagnosis of various clinical types of dermatoses belonging to this class.

I am particularly glad to have the author advance the idea that scarlet fever dermatologically is not an independent entity but merely a generalized infective erythema caused by a specific but as yet not identified micro-organism—the idea which I had advanced in 1918 in a paper written on this particular subject. While I fully realize the great clinical importance and enormous clinical domain occupied by toxic dermatoses, I wish to say, in the light of my experience, that the general practitioner is inclined to overrate the frequency of occurrence of systemic dermatoses over the local, and is often tempted to see systemic dermatoses in skin lesions purely local in origin, such as parasitic dermatoses, streptococci infection, various types of tinea, particularly of eczematoid type, insect bites, etc.

Kendal P. Frost (831 Pacific Mutual Building, Los Angeles)—Doctor Schroeter has struck a very important point in drawing attention to the general medical aspects of dermatology as a specialty. His examples of the toxic groups are the outstanding ones. There is, however, with the exception of the new growths and the dermatoses which are recognized of external origin, a profound influence from internal sources. Dermatology is a branch of internal medicine and can exist only as such, and its existence is fully justifiable with the tremendous growth of our knowledge and the tremendous detail which every man must hold. To intelligently follow the science of medicine now we must limit ourselves to one field, otherwise it cannot be done.

Thus, Mother Medicine has a number of children, all of them intimately related and interdependent and all dependent on the mother herself, but each one should be strong enough to stand alone.

Albert H. Rowe (119 Thirteenth Street, Oakland)—Doctor Schroeter emphasizes the fact that skin diseases are often manifestations of fundamental bodily disease. It is true that these general disturbances are vague and difficult to understand. This fact, however, emphasizes the great outstanding challenge to dermatologists, which is the true basic etiology. As dermatology exists today, many of the diseases are merely catalogued according to symptoms and empiric treatment only is suggested. Investigations which will yield basic and scientific information as to etiology are tremendously needed. Allergy as it has unfolded itself in the last few years is certainly shedding light on the etiology of some of the syndromes of dermatology. Most of this information has come through the investigations and clinical researches of internists, which again shows the immediate relation dermatology bears to internal medicine. Today dermatology cannot be practiced successfully without the aid of allergic skin-testing and desensitization. Thus a dairyman recently came complaining of a severe eczema during all the year except the winter. This was localized to his face and hands. Skin tests with animal hair proteins were negative. However, testing with some sixty different pollens to which he was exposed, showed positive reactions to bermuda and barley pollens. His cows were eating bermuda grass in the pasture, and barley hay in the barn. Desensitization to these pollen proteins has afforded complete relief.

Ernest H. Falconer (Fitzhugh Building, San Francisco)—Doctor Schroeter's paper is conceived along broader lines than those of anatomical distribution and morphology. This broader conception is due to advances along the lines of biochemical research and studies on sensitization and anaphylaxis. It brings into the foreground suggestions that must be worked out and translated into facts by groups of workers composed of physiologist, pathologist, biochemist, and bacteriologist. Their isolated facts and observations must then be collected and correlated by the internist and the dermatologist and the collected data applied to the problems of etiology. This means a large order for dermatologist and internist, for it demands a broad training, constant study and the development of a critical faculty for using information that will be of help in solving their problems. In the matter of the purpuras, for example, it has been suggested by recent data at our disposal that idiopathic purpura hemorrhagica is a true platelet deficiency disease, or a thrombopoenia. It was thought that the spleen took on the aberrant function of destroying the platelets in an abnormally rapid manner. The suggestion for splenectomy was obvious. Yet after such an operation, the platelets were found to rise first to a nearly normal number, but gradually to fall again until they reached a point at which we expect hemorrhages to recur. Apparently, however, they do not recur. An explanation which seems tenable is that the spleen elaborates some toxin or substance which acts on the capillaries, making them abnormally permeable. When the spleen is removed, the capillaries again return to a condition capable of holding the formed elements of the blood sufficiently intact so that red corpuscles do not permeate into the skin and mucous membranes. We are, however, just arrived at a point where the pathologist, the physiologist, and the biochemist must take up the problem. For the present, however, is the dermatologist prepared to make a diagnosis of idiopathic purpura hemorrhagica and on the basis of that diagnosis to advise his patient to seek relief in splenectomy? If he should shift this responsibility to the internist, is the latter prepared to make the necessary platelet counts and blood studies to prove the diagnosis and assume the responsibility of advising a splenectomy? These questions are worth thinking about and should stimulate our enthusiasm to study disease as applied to the body as a whole and not to isolated portions.

Doctor Schroeter (closing)—Of the specialties, none is so closely bound to general medicine in some of its aspects as is that of dermatology. No specialty is more ruthlessly abused and less understood by the general profession. Many diseases are cutaneous because the outstanding symptom is written on the skin, like pellagra, but many skin entities are the outstanding symptoms of as yet unknown diseases. Progress in the discovery of these pathological conditions lies in the direction of a study of the finer disturbances of metabolism and blood chemistry. . . . The dermatologist should be more frequently consulted as to the character of a particular eruption, with a view to ascertaining, first, if it really has an internal basis and, secondly, if so, the probable source. Recently a case of harmless pityriasis rosea, a type of exogenous skin disease, and likely to be overrated by the general man as Scholtz points out, was put in a room with cases of infectious exanthemata.

A dermatosis is a very important matter to the patient and always means a disturbance. Medically, the types of dermatoses here mentioned are very important and offer a fertile field for research. Fal-

coner's citation of effect of splenectomy on blood platelets is very interesting. Barrow of Los Angeles recently called my attention to the discovery of certain intestinal protozoa in two cases of erythema multiforme. Frost and Rowe have both emphasized the intimate relation of internal medicine to these dermatoses.

SKIN SYPHILIS ASSOCIATED WITH INFLAMMATORY SKIN DISEASES *

(A REPORT OF THREE CASES)

By KENDAL P. FROST, M. D., Los Angeles.

The factors underlying active syphilitic processes have been much discussed of late. Moore and others have added considerably to the spirachete strain idea. Klauder has written concerning the determination of late syphilitic lesions by trauma. It has long been recognized that trauma plays a large part in localizing syphilitic process. This is true of the skin as well as the organic manifestations of the disease. Inflammatory processes directly preceding syphilitic processes are not uncommon.

Three cases have come under observation in which an inflammatory skin condition closely preceded and apparently excited the development of cutaneous syphilis and seemed to a certain extent to determine the type of the syphilitic lesions.

Case I—Miss N. K., 26 years of age, white. Had had trychophytosis corporis and was cured except for one lesion on the chin which had not yielded to treatment. She was referred for a diagnosis of this lesion. It was a somewhat boggy, inflammatory node about 2 cm. by 3 cm. on the side of the chin. The Wassermann reaction was negative. There was no history of previous manifestation of lues, and the history otherwise was negative. Soothing applications were made to this lesion, and after about two weeks it assumed the appearance of a typical circinate nodular syphilide. Three-tenths gms. arsphenamine was given, and a week later the lesion was healed.

Case II—Male, age 35. This man had been diagnosed as luetic about a year previous on the basis of a weak positive Wassermann reaction. He received a small amount of treatment then. Under our observation, the evidence did not seem sufficient for a diagnosis of syphilis, repeated Wassermann reactions being negative, and no signs were found on physical examination. He had a troublesome herpes progenitalis, and during treatment for that developed an epidermophyton infection on the sole of the foot, from which fungi were demonstrated microscopically. He was given a Whitfield ointment and returned a week later with a small, punched-out ulcer at the site of each group of vesicles in the infected area. The Wassermann reaction taken then was positive. The ulcers and the herpes healed rapidly under antisyphilitic treatment.

Case III—Mexican woman, age 28, married. Good history not obtainable on account of language difficulties. The skin trouble had been present for several years and occupied the bridge of the nose and the upper cheeks. The lesion on first glance was a typical lupus erythematosis of the butterfly type. On closer observation small nodules and deep pitted scars were seen, especially in the margin. Her Wassermann reaction was positive. Under treatment the nodular portion quickly healed and the inflammatory part remained active to a slight degree for some time, although it eventually healed under no other medication or treatment than the anti-luetic. In this case there is some possibility that the entire process is syphilitic, but the fact that it healed over a period of some months lends strength to a diagnosis of lupus erythematosis associated with syphilis.

As short a series of cases as this proves nothing. They are presented merely for the purpose of recording them and drawing attention to the fact that local inflammatory processes may produce a locus minoris resistenciae wherein latent syphilis may become active.

Pacific Mutual Building.

* Read at Section of Dermatology, State Medical Society, San Francisco, 1923.

DISCUSSION

Ernest Dwight Chipman (391 Sutter Street, San Francisco) — The cases recorded by Frost are extremely suggestive. They agree with what all of us must have observed, viz., that traumatism may undoubtedly be the determining factor in the outbreak of lesions in syphilitic subjects.

I have recently treated a serpiginous ulcer of the leg in an individual who, for twenty years, has had an infection with no clinical signs, but in whom a blow on the shins caused typical syphilitic lesions.

The doctrine that traumatism may evoke specific reactions is probably capable of extension to include non-specific reactions as well. It seems possible that certain dermatoses classed as eczema, dermatitis, etc., sometimes occur more readily in subjects with a specific history, the determining causes probably being those trivial traumata of every-day wear and tear which would give rise to no reaction in one with no underlying syphilitic taint.

Harry E. Alderson (240 Stockton Street, San Francisco) — Frost's case reports and observations are most interesting and bring up questions of great practical importance. As Chipman well says, we often see late syphilides occurring at the site of traumatism. And these traumata need not always be severe, but repeated often they have their effect.

Where lues is acute, that is, in the earliest stages with extensive generalized distribution of the treponemata pallidae, local heat or chemical or other irritation may produce intensification of the secondary eruption in local areas. These cases and the late cases where local infection or trauma excite the appearance of syphilides in situ bring up questions of importance from an industrial standpoint. One occasionally has to decide whether or not a late syphilide occurring at the site of trauma sustained by a worker entitles the victim to care and compensation by the insurance carrier.

Analogous to this effect of local impaired resistance in favoring the development of syphilides is the apparently selective action of the treponemata pallidae in producing visceral complications. This is seen in the common occurrence of cerebrospinal lues in the mentally active Caucasian, as compared with its rarity in the native African; in nervous and cardiovascular syphilis in alcoholics, in cardiovascular involvement in those who indulge in hard physical labor and in tobacco to excess.

Roentgenologic Examination of the Gall-bladder—Preliminary report is made by Evarts A. Graham and Warren H. Cole, St. Louis (Journal A. M. A., February 23, 1924), of a new method utilizing the intravenous injection of the calcium salt of tetrabromphenolphthalein. No untoward effects have been observed in the human subject with the concentrations used. A dose of 0.1 gm. per kilogram, when injected into a human subject, was found sufficient to cast a shadow. At present, 6 gm. has been the largest dose used. Six grams of tetrabromphenolphthalein is mixed with 1.2 gm. of calcium hydroxid, ground in a mortar with a few cubic centimeters of water, and dissolved in from 325 to 350 cc. of distilled water. Addition of calcium lactate was found to produce a more stable solution and slightly increase its solubility. Therefore, a solution of 2 gm. of calcium lactate in a few cubic centimeters of water is added.

COCCIDIOIDAL GRANULOMA IN SOUTHERN CALIFORNIA

By ROY W. HAMMACK, M. D. and J. MARK LACEY, M. D., Los Angeles.

So far as we have been able to determine, only two cases of coccidioidal granuloma observed in Southern California have been reported in medical literature. Brown, in 1906, reported two cases seen in Los Angeles. Both of these had apparently acquired the infection in the San Joaquin Valley. While in the majority of all cases reported the infection appears to have been acquired in the San Joaquin Valley, in recent years an increasing number of cases undoubtedly infected elsewhere has been recognized. In our series about one-fourth of the cases appear to have originated in the San Joaquin Valley. Of the others, one is attributed to Mexico, one to Texas, one to Arizona, one to New Mexico, and the remainder to Southern California.

Our acquaintance with the disease dates from 1916, when the first case of the series was seen at the Los Angeles County Hospital. Since that time a total of nineteen cases has been recognized at that institution. In addition to these, we include four cases which occurred in the private practice of physicians in Los Angeles and Pasadena. In these the laboratory studies were carried out in the laboratory with which one of us is associated.

Our report thus includes twenty-three cases. Of these, eleven were Mexicans, three negroes, and nine Caucasians. Nineteen were males and four females. The ages range from 2 to 83 years.

Occupation seems to be a factor in the etiology of the disease, since those who worked on farms far outnumbered those of any other occupation; yet the series included a clerk, a student, an electrician, and a retired business woman. In no case could the portal of entry of the infection be demonstrated, but in several cases the findings suggested that infection was through the respiratory tract.

In Case No. 1 (see table) there was found in the anterior wall of the esophagus, a little above the level of the bifurcation of the trachea, an ulcer one centimeter in diameter. Imbedded in the ulcer was an oat kernel. Sections from the ulcer showed a granulomatous base containing a few parasites. Infected lymph nodes lay adjacent to the esophagus over the ulcer. It was suggested that the oat kernel might have been the carrier of the organism, and the esophagus the portal of entry. Unfortunately, animal inoculation with this foreign body was not performed.

CLINICAL FEATURES

Cutaneous lesions were not common. They occurred usually as reddish papules which broke down, forming discharging ulcers. They were found on various parts of the body. Subcutaneous abscesses were very common, occurring on all parts of the body. These were prone to break through the skin and discharge pus for a long time, but occasionally such lesions healed, others appearing on other parts of the body. Bone lesions were very common, occurring in twenty-one of the twenty-three cases. Many different bones were involved, those most commonly affected being the bones of the foot and the vertebrae. The involvement of the foot was always in the ankle region, and the joint was usually affected. Nearly all of these cases gave a history of injury to the ankle, such as sprain, followed soon after by swelling, suppuration and sinus formation after spontaneous or operative evacuation of the pus. Such a lesion was present in eleven of our cases, in nine of which it was the first lesion to be recognized, in five the only one found. We have been able to follow only two of these latter for a period of over two years after amputation of the affected part.

Infection of other bones was usually followed by suppuration of the surrounding soft parts which eventually reached the surface of the body.

Lung involvement was frequent, producing physical signs indistinguishable from tuberculosis.

Involvement of cervical lymph nodes was seen in two of the four children and in two adults.

The temperature range was from normal to 103 degrees Fahrenheit, according to the severity of the disease and the regions involved. The pulse was increased in frequency in proportion to the elevation of the temperature. The leucocyte count varied from normal to high polymorphonuclear leucocytosis, depending upon the extent of the lesions and the secondary infection present.

PATHOLOGY AND BACTERIOLOGY

Autopsy was performed upon the eight who died at the County Hospital. Material was also obtained at surgical operation in several cases. While a wide variety of lesions was found, there was nothing strikingly different from what has already been described by other investigators. Lung involvement was present in some degree in every autopsy and the lesions were very similar, both grossly and microscopically, to tuberculosis. In two instances active tuberculosis was also present, as shown by demonstration of the bacilli. Very striking was the freedom of the gastro-intestinal tract, liver, spleen and the genito-urinary tract from the infection. In only one instance were lesions of the genito-urinary tract found, a few miliary nodules in the kidneys. The bone lesions were usually markedly destructive. In a few instances, notably in Case No. 18, there were proliferative changes in the cortical portions. Roentgenological studies of some of these cases have been reported by Bowman and Taylor. In only one case was involvement of the nervous system found. Here there was a small granulomatous nodule in the cerebral cortex, in which the organisms could be demonstrated.

In every case in the series the organism has been demonstrated either in pus or in tissue, and has usually been cultured.

Animal inoculation has been performed in some instances. Blood cultures have been negative. At autopsy one and a half hours after death in Case No. 9, cultures from the blood in the right auricle yielded streptococcus hemolyticus and coccidioides immites.

TREATMENT AND PROGNOSIS

Various forms of therapy have been tried, but no drug has been found of value. In two cases subcutaneous lesions apparently responded to x-ray treatment, and these patients are well five and nine

No.	RACE	AGE	SEX	OCCUPATION	PROBABLE SOURCE	RESIDENCE IN CALIF.	LOCATION OF LESIONS	TOTAL DURATION	TREATMENT	OUTCOME
1	Mexican	25	Male	Farm and R. R. Laborer	So. Calif.	6 years	Ankles, lungs pericardium, subcutaneous abscesses	4 months	Drainage	Death
2	Negro	83	Male	Gardner	So. Calif.	25 years	Left ankle	2 months	Amputation	Well 5 years
3	Mexican	54	Male	Teamster	Mexico	1 year	Right groin, vertebrae Left wrist	1 year	None	Death
4	American	28	Male	Teamster	San Joaquin Valley	Life	Fingers, knee joints, subcutaneous abscesses	11 months	Amputation	Death
5	Mexican	48	Male	Farm laborer	Imperial Valley	4 years	Right ankle	8 months before observation	Refused amputation	Unknown
6	Negro	44	Male	Laborer	So. Calif.	8 years	Abscess lumbar region, lumbar vertebrae	5 months	Drainage	Death
7	Mexican	8	Male	Child	Unknown	Life	Fingers, toes, elbow, ankle, cerv. glands	Unknown		Unknown
8	Mexican	3	Male	Child	So. Calif.	Life	Ankle, subcutaneous abscesses, lungs, brain	7 months	Drainage	Death
9	Serbian	34	Male	Oil worker	Unknown	3 years	Skin, subcutaneous abscesses, wrist, skull, kidney	4 months	Potass. iodide	Death
10	Mexican	9	Male	Child	San Joaquin Valley	5 years	Lymph glands, fingers, ilium, tibia, lung	4 months	Potass. iodide	Death
11	Armenian	27	Male	Truck driver	San Joaquin Valley	7 years	Ankle	5 months before amputation	Amputation	Living 2 years
12	Mexican	34	Male	Painter	San Joaquin Valley	1 year	Ankle, knee, sacrum, sternum, subcutaneous abscess	4 months	Potass. iodide Carrell-Dakin	Death
13	Mexican	25	Male	Farm laborer	San Joaquin Valley	10 years	Vertebrae, ribs, pleura, subcutaneous abscesses	6 months		Death
14	Mexican	23	Male	Farm laborer	Unknown	Unknown	Ankle, cerv. glands	4 mos. before amputat.	Amputation	Living 1 year
15	Negro	28	Male	Farm laborer	Unknown	Unknown	Lungs, vertebrae, ribs, subcutaneous abscesses	1 month		Death
16	Mexican	34	Female	Housewife	New Mexico	2 years	Ankle	2 yrs. before observa.	Refused amputation	Unknown
17	American	61	Male	Electrician	Unknown	15 years	Ankle	16 mos. before amputat.	Amputation	Still in hospital
18	Mexican	2	Female	Child	Texas	4 months	Humerus	Unknown	Amputation	Still in hospital
19	American	39	Male	Clerk	Arizona	None	Subcutaneous abscesses, muscles of back.	14 months	Drainage	Still under observation
20	American	61	Female	Retired	So. Calif.	30 years	Head of radius and ulna	2 years	Curettage Drainage	Died of cerebral hemorrhage. Lesion healed.
21	American	53	Male	Veterinarian and farm laborer	Tulare Co.	14 years	Subcutaneous abscesses, wrist (metacarpals)	4 years before observation	Drainage	Living. Several lesions healed.
22	American	23	Female	Student	So. Calif.	Life	Lung, cervical glands. Subcutaneous abscesses	20 months	Arsenic, X-ray	Well 5 years
23	American	23	Male	None	So. Calif.	2 months	Ankle, subcutaneous abscesses	1 month before amputation. Abscesses 4 months later	Amputation of Ankle X-ray	Well 9 years

years, respectively, after their lesions healed. In one of these the subcutaneous lesions appeared after amputation of an affected ankle; in the other after what was clinically a long continued broncho-pneumonia. Ten of our cases are known to have died of the disease, one of another cause. Three have been lost sight of. Only four have been free from symptoms for a period of two years or more. Three of these have had amputation of an affected foot, and are well, two, five, and nine years later, respectively.

The duration of the disease in the fatal cases has been short, from one month to one year after the first symptoms were noticed. That some infected individuals may live for a period of years with little extension of the process suggests the existence of strains of low virulence or the power of the body to develop resistance against the infection.

CONCLUSIONS

Infection with coccidioides immites not infrequently occurs in Southern California. X-ray therapy appears to have been of value in two cases, and we believe that it should be given thorough trial. No other therapeutic measures except surgery have proved of value.

Note—Since this report was made, nine additional cases have been encountered. These we hope to include in a subsequent report.

Pacific Mutual Building.

DISCUSSION

William B. Bowman (Brockman Building Los Angeles) — It was my good fortune to have made a thorough Roentgen study of five of the cases reported in this paper, all of which showed definite bone lesions. The following bone changes were noted at the time of their examination.

Case I — As listed in their table, revealed a small irregular area of necrosis involving the inner two-thirds of the articular surface of the tibia. There was also an irregular fuzzy thickening of the periosteum of the internal malleolus.

Case II—Left ankle. The articular surface of the tibia was irregular, showing beginning destruction of the joint surface. There were also a few small areas of rarefaction on the posterior surface of the tibia.

Case III — Left wrist. Roentgenograms revealed marked destruction of the articular surface of the radius, the bone having a punched-out appearance such as seen in cases of tuberculosis. The outer border of the radius showed a roughened, irregular, fuzzy thickening of the periosteum not seen in tuberculosis of the bone.

Case IV—Roentgen examination of the chest and spine of this patient was negative for any definite bone lesion. Left hand—All carpal and proximal ends of the second, third, fourth, and fifth metacarpal bones were poorly defined. The joint surfaces were practically destroyed and the carpal bones had practically lost their identity. There was a marked thickening of the soft tissues. These changes were identical with those found in tuberculosis. Right knee showed practically the same changes except that the patella was missing, it having been removed prior to the roentgen examination.

Case V—Right ankle. There were small areas of rarefaction in lower end of fibula. The tip was denuded of periosteum, with slight bone destruction. The internal malleolus showed marked bone destruction with considerable irregularity, and fuzzy thickening of the periosteum.

Summary — In practically all of these cases, the findings were typical of bone tuberculosis, with the exception of a peculiar roughening and fuzzy thickening of the periosteum which seems to be peculiar to this disease. These periosteal changes were not present, however, in Case No. IV.

From my limited experience I am of the opinion that these cases are not as rare as is generally supposed, and that most of these cases are diagnosed as cases of tuberculosis.

Raymond G. Taylor (Hospital Good Samaritan, Los Angeles)—It was my privilege to see most of the cases mentioned in this report, and make a roentgen study of the bone and chest lesions. A detailed roentgen report was made by me of eleven of these cases in 1922 and published in July, 1923. No attempt will be made to go into detail in this discussion, as anyone who is interested can find the details in the published article.

I do not believe that there is any uniform, constant roentgen finding that is characteristic of this disease. Practically any of the lesions that we have seen would justify a diagnosis of bone or lung tuberculosis when viewed from the x-ray standpoint alone. There are one or two points which make one suspicious of a diagnosis of coccidioidal granuloma, but nothing that is sufficiently definite to warrant an unsupported diagnosis. The suspicious points referred to are the rather unusual, circumscribed, large areas of soft tissue density that precede the bone lesions in the extremities and the unusually marked proliferative changes seen most frequently in the younger patients. Neither of these are sufficient to rule out tuberculosis, but they are, apparently, much more often found in the cases of coccidioidal granuloma than in tuberculosis.

The bone proliferation may be observed in a most unusual and marked degree after some operative interference, in the young, such as an attempt to clean out the diseased bone by curetting. In one case in which this was done, before a diagnosis was made and before the patient came under observation, a diagnosis of probable sarcoma was made. The proliferation was more rapid and intense than any the writer has ever seen in any type of lesion.

The fuzziness of the periosteum mentioned by Bowman has apparently been present in some of our cases, but only those which affected the bones about the ankle-joint.

So far as treatment is concerned, cases which have been radiated are among those which are still alive after some years. My opinion is that any benefit that may be derived from this type of treatment must, undoubtedly, be due to a stimulating of the natural defensive mechanisms in the tissues, rather than any direct action of the ray on the organisms.

Philip King Brown (909 Hyde Street, San Francisco)—The search for cases of coccidioidal granuloma is possibly responsible for the recognition of such a large number of cases in the period of eight years covered by Hammack and Lacey's report. I presume we are overlooking these cases all the time, and such reports as this should awaken us again to the fact that in all our large hospitals there must be such cases constantly. I should agree with the others that the portal of entry was the respiratory tract, although the skin cases may have been direct inoculation. I do not think that any case in a large hospital of a suppurating superficial lesion suggesting tuberculosis should be treated without cultures being made. It is hopeful that cases have apparently recovered where what seemed to be primary foci were extirpated surgically. Gardner has two in his Southern Pacific Hospital service where the amputation of a foot in one and the excision of an elbow-joint in the other resulted in apparent cures.

False Diverticula of the Jejunum — False diverticula of the intestine constitute a rare anomaly. A study of the literature reveals only twenty-seven cases. Three additional cases are reported by William M. Sheppe, Wheeling, W. Va. (Journal A. M. A., April 5, 1924), occurring within four weeks.

KIDNEY AND URETERAL CALCULI *

By J. C. NEGLEY, M. D., Los Angeles

These cases were collected from the records of the Los Angeles County Hospital, and are only those cases definitely proven by x-ray or other means to be calculi.

They were compiled for the purpose of trying to determine whether there were any definite symptoms, clinical and laboratory findings, and operative results upon which we might base conclusions in the future management of such cases. The paper represents statistical findings, and the summary and conclusions are based on these rather than on the personal opinion of the writer.

There were twenty cases of stone in the ureter, of which six were on the right side and fourteen on the left. There were thirty-seven cases of stone in the kidney, of which twenty-one were on the right side and sixteen on the left. There was one case of stone in the right kidney and right ureter and one case with stone in the left ureter and left kidney. There were two cases of stone in both kidneys. As to sex, there were thirty-five men and twenty-seven women, As to age, the youngest was 17 and the oldest was 80. Of the ages between 17 and 27, there were fourteen cases. Between 27 and 37 there were nineteen cases. Between 37 and 47 there were nineteen cases. Between 47 and 57 there were five cases. Between 57 and 67 there were three cases. Between 67 and 77 there was one case. Between 77 and 87 there was one case.

SYMPTOMS

Duration—Twelve cases came into the hospital with their first attack. One case had symptoms for three days, and another one for eight days. One case had symptoms for two weeks, three cases had symptoms for three weeks. One case had symptoms for two months, three cases had symptoms for three months, eight cases had symptoms for from six to eight months, two cases had symptoms for ten months. Seventeen cases had symptoms lasting from one to three years, eight cases had symptoms lasting from four to seven years, five cases had symptoms lasting from ten to twenty years, three cases had symptoms lasting for thirty years or longer.

Character of Symptoms—In forty-two cases there was bladder disturbance, ranging from a mild degree of dysuria to tenesmus and pain that required an opiate. Frequency both night and day was the most prevalent symptom.

Nine of the series had frank hematuria. Another marked symptom was pain. All but seven of the cases complained of pain in some degree and in many locations. Some of the cases were unconscious or to near a state of collapse to register much pain, which accounts for a relatively large number of cases that presented no pain.

Location of Pain—Nineteen cases manifested typical kidney pain which radiated from the lumbar region along the course of the ureter, and in some cases to the thigh or the testicle on the same side. Twenty cases presented abdominal pain. In five cases the pain was limited to the left lower abdomen, in eight cases to the right lower abdomen, four cases to the left upper abdomen, and three cases to the right upper abdomen. Most all the cases of pain on the right side was found a little lower and more lateral than McBurney's point. In sixteen cases there was pain in the back, mostly in the lower part of the back in the lumbar region. The cases of renal pain, of course, were in the back, but are not included in these sixteen cases.

Physical Findings—The tenderness corresponded to the side in which there was renal pain in every instance. The abdominal pain did not always show tenderness, but there was rigidity in every case of abdominal pain. The physical findings were negative in seven cases. There was a palpable mass in the kidney region in eleven of the cases.

Urine Findings—The bladder urine in three of these cases was entirely negative. In fifty-two cases red blood cells were found. In fifty-six cases pus cells were found. The urine was frankly infected in twenty-six cases. Albumin was found in forty-seven cases.

Cystoscopic Findings—Every case had some degree of cystitis, varying from a mild degree of trigonitis to a very virulent or ulcerative cystitis. The bladder capacity was impaired in only five cases, that is, to any marked extent. Of the thirty-two cases operated on, eleven had both pus and bacteria; ten had pus alone and no bacteria, and one had albumin alone and no pus or bacteria.

Pthalein Output — A twenty-minute period was used in all cases. In those cases in which the urine was obtained from the kidney or ureter on the side affected, there were eight cases in which the pthalein did not appear at all. There were eight cases in which the pthalein was normal. There were seven cases in which the pthalein appeared between ten and fifteen minutes. There were three cases in which the output of pthalein was between 15 and 25 per cent. In one case the time of appearance was twenty-eight minutes. With another patient the pthalein did not appear for forty-five minutes.

Percentage of Pthalein—There were eleven cases in which the pthalein did not appear in a sufficient quantity to estimate. There were eight cases in which the pthalein ranged between 2 and 7 per cent. There were seven cases in which the pthalein ranged between 7 and 12 per cent. In two cases the pthalein output was normal.

Of this series of cases, thirty-two were operated on, nine in which the left nephrectomy was done, eight in which a right nephrectomy was done. There were eleven cases in which the stone was removed through a pyelotomy incision and in which the stone was either in the kidney, pelvis, an accessible portion of the kidney tissue, or was drawn with forceps from a lower portion of the ureter. In four cases there was simply an incision in the ureter, and the stone was removed through this incision.

The average post-operative stay in the hospital was twenty-four days. The shortest period in the hospital was fourteen days, and the longest period was three months. This case was one in which a sinus leading from the kidney had opened into one of the larger bronchial trunks so that injection of bismuth into the end of the sinus opening out

* Presented to the Section on Urology at the Fifty-second annual session of the California Medical Association, San Francisco.

through the skin brought some of it through the bronchial tubes. Of these thirty-two operative cases, there were four women who had had some pelvic operation, three men who had appendix operation, one man and woman who had had a gall-bladder operation.

SUMMARY AND CONCLUSIONS

Location of the stone in ureter seems to be more frequent on the left side; in the kidney it was more frequent on the right side. In all these cases there were only two with bilateral calculi. If this series of cases alone were to be considered, may we not tell our patients that the danger of formation of stone in remaining kidney is rather remote—about one chance in thirty-one, according to these statistics.

Age — It seems that no one from 17 to 80 was exempt, but more cases were found between the ages of 27 and 47.

Duration of symptoms would go to show that the greater number had symptoms lasting for over a year, but this factor varies so with the individual that it is hardly important in the question of diagnosis, particularly so in this series, as most of them were of low intelligence and not accustomed to noting any minor disturbance of bodily health.

Findings in Bladder Urine—This is a factor of prime importance, because only three or a very small percentage failed to show signs of pathology in the urinary tract.

The cystoscopic findings are also conclusive, in that every case had some degree of cystitis. Practically 100 per cent of the cases showed diminution of pthalein output, either as to time of appearance or percentage or both in the affected side.

The bladder symptoms are also conclusive, in that over 85 per cent of the cases had some bladder disturbance, most marked of which was frequency. Hematuria, the often-quoted symptom of calculi, was present in only 7 per cent of these cases—a relatively small percentage. Red blood cells were present in practically every case, however.

Pain was probably the most important symptom, as all the cases except the ones that were unconscious complained of pain in some location. Not all—in fact, only 18 per cent—showed the typical renal pain. The greater number showed abdominal pain in widely varied locations.

Physical findings were also conclusive, in that 100 per cent showed tenderness on the side affected, and there was rigidity in 100 per cent of the cases with abdominal pain.

A relatively large percentage (18) showed a palpable mass in the kidney region. These cases, of course, showed obstruction of ureter with infected hydronephrosis.

CONCLUSIONS AS TO ADVISABILITY OF OPERATION

It would seem from this small series that operation is the method of choice in all these cases showing derangement of kidney function. The reasons for advocating operation are, first, the element of time consumed. These patients averaged only twenty-four days in the hospital, which is a relatively short time; second, it is not a serious affair to operate on these cases, as all of our deaths were from causes far removed from the operation, but were from outside influences—in fact, only the death from septic erosion of the pedicle can in any way be called an operative death; third, manipulations for the non-operative removal of the stone, if too often repeated, do more harm than good and certainly cause the patient more suffering, more inconvenience, more loss of time, more expense, and more chance of destruction of kidney tissue with abscess formation if condition is allowed to remain for a long time. However, every case should have at least three attempts made for the non-operative removal of the stone before they are subjected to operation. The safety of the operation is illustrated by a few selected cases, namely, one done by Rosencranz on a woman, age 62, who had a large hydropyonephrosis, with the mass so large as to extend from the ribs to the sacrum. The kidney was removed, and the patient left the hospital in fourteen days.

Two cases operated by Day, one a girl age 17, with a right pyonephrosis in which kidney was removed. In the left ureter just below the kidney was a small stone, which caused obstruction and suppression of urine. Twenty-four days after right nephrectomy she was operated on, and through a pyelotomy incision the stone was removed and she left the hospital in forty-eight days with a functioning kidney. Second case of a boy with several stones in right kidney and right ureter full of stones. He also had active pulmonary tuberculosis and a heart lesion. Day did a nephrectomy under para vertebral anesthesia, with complete recovery, gain of weight, and cessation of all kidney symptoms.

From this small series of cases one would be led to believe that stone in the kidney or ureter was a relatively uncommon occurrence. If we consider the aggregate number of cases that pass through the County Hospital in a period of three years, only a small number are affected by urinary calculi.

We find opposite to other observers, in that only nine of these cases had been subjected to operation for other condition while showing evidence of kidney trouble, and as these operations were done outside of the hospital, we have no way of telling whether they were unnecessary operations or not. In fact, in only one case, a gall-bladder operation, did we find that a mistaken diagnosis had been made. Therefore, we have no criticisms to make such as are all too often made of the other fellow's diagnosis and treatment, which criticism not only hurts the surgeon in question, but the profession as a whole. Some day one of the cults will seize upon a paper in which some member of the profession has enlarged upon his colleagues' mistakes mainly for self-glorification, and make such paper an issue to the general detriment of the profession at large.

219 West Seventh Street.

DISCUSSION

R. L. Rigdon (291 Geary Street, San Francisco)—The report of Negley confirms for the most part other similar reports of kidney and ureteral stones; such differences as occur may be attributed to the variations that must be present in relatively small series of cases. It is rather striking that no patient among the sixty-two was under 17 years of age. Cabot reports more than 20 per cent occurring within the first two decades of life.

The frequency of bladder symptoms is another

striking observation. It is rather commonly thought that stone in the kidney does not cause vesical reactions, but that these symptoms result from ureteral stones. In this series, with only twenty-two instances of stone in the ureter, bladder disturbance was noted in forty-two. It is probable a closer analysis might elicit the fact that causes other than the calculi were operating to produce these symptoms.

Pain is a symptom that is very common and may be very misleading. It was complained of in forty-seven instances, and in a considerable proportion of the cases might have been produced by lesions in other organs.

In this connection, it is well to recall that, in nearly all of this series, some change was found in the microscopic appearance of the urine. Taking these two symptoms together, pain and changes in the urine, we may be justified in hesitating to incriminate the upper urinary tract, if pain is present and the urine persistently negative upon microscopic examination.

The percentage of tenderness and rigidity is striking. These observations are not borne out in the routine experience of some other observers. It has been our experience not infrequently, that neither tenderness nor rigidity is demonstrable.

With reference to treatment, the doctor's statements are so brief as to seem misleading. He contrasts operative and non-operative methods, and makes out a good case for surgery. There is a rather large percentage of stones in the lower ureter that should be treated by means of ureteral dilatation. Indeed it is sometimes possible to follow the descent of a ureteral calculus, under ureteral manipulation, from the upper portion of the ureter until it is delivered in the bladder, from which it can be voided or removed by an evacuating instrument. I believe that practically every ureteral calculus that is not too large should be given every opportunity to deliver itself, or be delivered without cutting. The patient who has escaped the knife is the grateful patient and, like the woman in labor, the pains are forgotten as soon as the child is born.

H. A. Rosenkranz (Story Building, Los Angeles)—The careful and painstaking work of Negley has been of interest to me from several standpoints. I have been impressed with the fact that he has not encountered any cases of reno-renal reflex. That red corpuscles were found in only 52 per cent of cases must, I believe, be attributable to the fact that the period covered by Negley's statistics included that of the World War, during which time hospital standards were inadequate. I can recall cases of ureteral calculus at the County Hospital in cases younger than 17 years of age, but they had other complications or refused operation, so were not transferred to the Urological department. I once extracted a stone the size of a small lima bean from the urethra of a babe about one year old.

As regards technique: I have found those calculi most difficult to remove that lie in the lower portion of the ureter just posterior to the bladder. About a year ago I bought a ureteral stone crusher fitted with a woven silk tip. Several months later I had occasion to use it on a patient who entered the office with quite a severe Dietls' crisis. He gave a history of having passed a number of stones, and had had one operation upon the side in question. Manipulation of the instrument after the administration of an H. M. C. tablet was not painful. I suspected that I might have caused considerable trauma to the patient, but was surprised when he walked into my office on the following morning entirely free from his ureteral symptoms, and he remained so during the several months following, during which I kept him under observation. I believe that if this instrument were given a fair trial the percentage of major operations for ureteral calculi would be considerably diminished.

I may add that, during the nine years of my service at the Los Angeles County Hospital, the percentage of renal calculi that have been diagnosed has increased several hundred per cent due to the fact that all cases having urinary symptoms are x-rayed. It has been noteworthy that we have diagnosed many cases of kidney calculi in patients who had not had any necessarily leading complaints that would make the general practitioner suspicious of renal calculus. I regard this routine roentgenography as of prime importance in cases complaining of backache, symptoms of cystitis and abnormalities in the urine.

Doctor Negley (closing)—Answering Rigdon, first, in reference to the large number of cases showing vesical reactions: Our cases are mostly terminal cases that have been suffering from renal or ureteral calculi for a sufficiently long time to cause infection of the upper urinary tract to a grave extent. Naturally, vesical infection follows in a very large proportion of these so-called terminal cases.

Second. In regard to pain in this series of cases, being due to lesions in other organs, will say that all patients (unless in a critical condition) are first admitted to the diagnostic wards, where they are examined by the internist, the gynecologist, the general surgeon, the radiographer, and a very complete examination is made, so that by the time they reach the urologist there is very little probability of any grave lesions elsewhere that are overlooked.

Third. In reference to tenderness and rigidity, most or all these cases seem to have had some degree of tenderness, but only those cases that showed marked abdominal pain had any degree of rigidity.

Fourth. In regard to the advisability of operation, or attempts at removal through the cystoscope: Of course, these cases, as any other surgical case, must be considered on their individual merits, and neither of the above methods should be advocated for all cases.

I have said that every case should have at least three attempts made for non-operative removal of the calculi, and after these three attempts if no progress has been made, then operate. Again, we must remember that these cases were ones that had had their calculi for a long time; had plenty of opportunity to pass and in many cases had cystoscopic manipulations on the outside.

We have adopted the plan of explaining both methods to the patient and allowing them to decide, and most of them choose an operation, particularly those who have already had one or more cystoscopic examinations.

Answering Rosenkranz, in regard to red corpuscles in the urine: Probably a word of explanation as to that would be that I considered only those cases that had not had the urine removed by instrumental means, i. e., by catheter or cystoscope; for all these cases have more or less blood, and I only considered those cases that had voided the urine before examination.

Estimation of Blood Sugar by the Folin-Wu Method—A simple and accurate micromethod for the determination of blood sugar, using only 0.1 cc. of blood, with a new method of collecting the blood, which is described, is recommended by F. S. Randles and W. K. Grigg, Albany, N. Y. (Journal A. M. A., March 1, 1924), for routine examinations when only small amounts of blood can be obtained, as in the case of babies and small children, or for the study of blood-sugar curves of adults from whom samples must be taken at short intervals. Tests showed that 0.5 cc. of blood filtrate would suffice for an accurate blood-sugar determination by the Folin-Wu method. By centrifugating instead of filtering in the preparation of the protein-free blood filtrate, it was found that 0.1 cc. of blood would easily furnish 0.5 cc. of the filtrate. In order to make the procedure as simple as possible, the authors have adopted Haden's modification of the Folin-Wu method of preparing the protein-free filtrate. Small, wide-mouthed, homeopathic vials (14 by 25 mm., 2 cc. capacity) are used for collecting the blood. The blood may be taken from the ear or finger following puncture. The puncture should be deep enough to insure a free flow of blood, if possible.

EDITORIALS

WHO IS VIOLATING THE MEDICAL PRACTICE ACT?

Section 17 of the Medical Practice Act provides a penalty for treating, diagnosing or prescribing for any ailment of the human system without having a license issued under the laws of this state.

It is a matter of common belief that some medical officers of the state, county and municipal governments, and technicians of a variety of species, are constantly violating this law.

DETAILING THE DOCTOR BY MAIL

The doctor's mail is beginning to look like the advertising sheets of some of our "careless" newspapers and magazines. Some of the publicity is well written, informative, and from legitimate firms who advertise in good medical journals. But fully 95 per cent of it is the worst form of medical piffle. Much of it is not even cleverly done, and lots of it frankly appeals to the physician's cupidity at the expense of his honor.

Doctor, did you ever stop to think what an insult to your intelligence and how cheaply many of these advertisers regard your integrity, as expressed in the expensive "stuff" they load your mail with? They further show how cheaply they expect to buy you, by trying to buy space in your medical journal and when they are turned down, they resort directly to your mail.

Do you know that some of these people grade their "literature" into three classes? One kind goes to doctors who are members of their medical societies; another grade goes to those doctors who are not members *and* to the various groups of cultists. The final grade is for public consumption.

Some of our members supply their state officers and CALIFORNIA AND WESTERN MEDICINE with all their mail of questionable character in original wrappers. We wish more physicians would do so. Original wrappers are necessary for the postoffice people with that class of rot covered by postal laws.

We also have facilities for getting some of the class sent to nurses, clinics and the public, but we want more from different localities. These fakirs often send one class of mail to one locality and another class to some other county.

The reasons for all these customs are, of course, obvious. We have no hope of destroying these pernicious influences, but it is quite a pleasure to help keep them on the move.

PAY CLINICS

Doctor, if you are interested in the greatest problem of our profession, which consists in making the best that scientific medicine has to offer available to everyone at the lowest possible cost consistent with good service, read the abstract of the discussions about "pay clinics" published on page 15 of this issue.

The July, 1923, number of Hospital Social Service is practically all devoted to the subject. There are several good articles dealing with its various phases. We have taken abstracts from some of the papers and reduced the matter for your convenience.

The pay-clinicers are a very busy lot of people. A few of them are educated practicing physicians, but most of them are non-medical with a sprinkling of "swivel-chair" men of our profession who have long since gotten out of touch and out of step with medicine as a great altruistic human service to sick people. To some of them medicine, whether preventive or curative, is now a cold-blooded game based upon "statistics" and other actuarial figures, with human beings as pawns. We must not lose sight of the fact that the 150,000 physicians of the country are themselves part of the public, and whatever steps and movements are made to limit or treat disease should not imply the complete pauperization of physicians. They have the same human desires and requirements as other citizens and are entitled to the same consideration given to others. Destructionists may criticize them all they please, but the fact remains that they are the best we have. They are the chief agents of civilization in controlling disease, relieving suffering and extending intelligent sympathy to those most in need of it.

Following promptly upon the introduction of pay clinics, we have the movement to change many former "free clinics" to "pay clinics," and this movement already has traveled far. What do you want done about it, and who shall do it?

DO YOU WANT THAT TWO-DOLLAR TAX ABOLISHED?

Many of our members are urging that the League for the Conservation of Public Health be asked to promote legislation to abolish the two-dollar-a-year Board of Medical Examiners' tax. A bill to this effect is now in course of preparation, which will be submitted to medical organizations and, as endorsed, will be introduced at the next Legislature.

We have yet to meet the first physician who is not opposed to this tax; most of them even decidedly resentfully opposed to it. This is not because of the amount of the tax, which is small, nor so much the nuisance connected with its payment. The objections are those of principle. It is probably the best, or the worst, example of class legislation to be found anywhere and, of course, is therefore unfair, unjust and repugnant to honest men.

In the enforcement of the Medical Practice Act by the Board of Medical Examiners, for which the two-dollar tax was supposed to supply funds, physicians are placed in the anomalous position of paying a special tax for the support of laws which, in some instances, are injurious to the only group of people who pay the tax. Some of the money collected by that exclusive, select and special class tax was, and presumably still is, used to pay a committee of doctors to prosecute violators of the medical practice laws. It is generally and correctly believed by both physicians and the general public that the prosecution of quacks, fakers, and the general unlicensed mess of so-called "doctors" by a board of doctors causes great injury to the good name of the medical profession. In spite of this well-known fact, physicians, and physicians only, are specially taxed

to add further injury to themselves and the cause they espouse. The enforcement of the laws governing the practice of medicine should, of course, be carried on by the law-enforcement machinery of the State. It is their business and it is not the doctors' special business.

It is not possible to enforce the miserable makeshifts of law governing the practice of medicine for which California is notorious. Attempts to do so are about as popular as attempts to enforce the Volstead Act. So long as human nature continues as it is, any attempt to enforce the law by a committee of doctors who are paid in part by special taxation of other doctors will continue to be the failure it has been, is, and should be.

Some of that two-dollar special class-legislation tax presumably goes to pay for the preparation of a directory published annually, and sold for more than the tax. This directory may be occasionally useful to an occasional physician, and the general public rarely sees it. It is chiefly interesting and of the greatest value to all sorts of honest, but particularly dishonest, vendors of services and things sold to cure disease. Many copies of this directory could be sold at $100 a copy as easily as they are for two or three dollars. If California is going into the game of selling "prospect" lists to all sorts of fakers, why not get real money for the "service"?

If you want this law repealed, write to the secretary of your medical association, the executive secretary of the League, or to the editor, and express your views.

SHOULD PUBLIC HEALTH DOCTORS BE LICENSED?

Publication in the newspapers of a statement that the State Board of Health does not want their doctors to be licensed has resulted in considerable discussion of the subject by other doctors and in not a small amount of criticism of the board's action.

The reason given for the attitude of the board is, that they desire their doctors to give all their time to their work and not be engaged in preparing themselves to engage in private practice.

The criticisms that have come to the Journal, with requests for a public discussion of the subject, have covered several lines of argument. It is stated that the practice of public health or preventive medicine is just as intimately a part of medical practice as is the diagnosis and treatment of appendicitis. Some physicians believe that the fact that much of a health officer's work is among the poor constitutes all the more reason for his being a law-abiding physician. This not only for the protection of the public and himself, but also that the legal responsibilities and privileges of the physician provided by the State license may not be avoided.

Others less kindly disposed believe this action to be but part of a general scheme now widely commented upon in many places to separate public health medicine from the work of that profession as doctors see it. It is stated by some that to allow public health doctors to practice medicine without a license opens possible avenues for incompetents to practice public health medicine, if the personnel of the State board were ever to be of the class that it is easy to make it under our laws.

And, probably most important of all, the decision results in keeping an important group of physicians largely imported for special work out of touch with other physicians whose co-operation they must have in order to render the better service so much to be desired. It is our impression that all members of the State board are themselves not only licensed to practice, but are members of their county medical societies and thus identify themselves, as is fitting, with medical progress. Adequate reasons for not extending to and insisting upon a similar status for all official public health doctors have not been advanced. In the absence of convincing reasons, people are liable to supply other reasons, and some of them probably unwarranted ones.

We discuss this question openly, because we believe the board of health is making a serious mistake, which no physician wants to see them do, in the interests of better medicine, including public health medicine for all the people.

GOING "CHRISTIAN SCIENCE" ONE BETTER

Whatever one's opinions of the adequacy of the medical education or of the methods of "doctors of Christian Science" in their treatment of the sick, it must be admitted that, from a business standpoint, their organization is effective. Their publicity; discipline of their own followers, as well as of their enemies, and particularly their power to get money, are outstanding. To them belongs the credit of teaching a philosophy and a religion that all sickness is error and not only securing followers, but making these followers pay for their tuition, as it were, and for the cure of those things their teachers said they had not.

Christian Scientists have for some years held the center of the stage against all comers in the field of mental and spiritual healing. Many groups of various kinds have attempted to break in on this profitable activity, but few of them have prospered over any extended period of time, and it is said that the great Christian Science organization helped in their decline. It has, of course, been recognized for some time by thinking people, and probably by the Christian Scientists themselves, that their position was precarious and could be held only at the price of well-organized and financed publicity, and an administration with disciplinary power. It has been equally obvious for some time that the social, sociological, psychological, sex and philosophical unrest being so widely propagandized among people was liable to swing many away from fundamental Christian Science and into some one or another of the camps of the other mental and spiritual healing groups. The signs have seemed clear that "weak sisters" were probably being so swung away from the "mother church" and the danger of possible successful combinations of several of these groups probably has had the serious attention of the Christian Science authorities.

Some thoughtful watchers of things, as they pass by, are beginning to wonder if the combination known as the "Christian Philosophers" or the

"Christian Philosophical Institute," with headquarters in Oakland, may not have attained a popularity where they are menacing the "Christian Science" movement; at least, in their most lucrative field of, what physicians claim to be, the practice of medicine. The head of the "Christian Philosophers" is one quoted by himself as "Bishop Wilbert, Le Roy Cosper, D. D., Ph. D." The "Bishop" and his cohorts also apparently have a good business organization. They have an expensive publicity organ; a legal department, and an "Institute" which seems to be a sort of a college which awards degrees that appear to be all that the student needs to prepare him to treat the sick. Thus, through the "Institute" and what is called a "Watch Tower," they seem to have an organization that places, supports, and promotes their rapidly growing group of graduates in a chain of *health centers* which they are locating at strategic points.

As "doctors" these "Christian Philosophers" make claims of cures that make Christian Science practitioners look like pikers. This new crowd publish names and addresses of "testimonialists" and they are not at all bashful. They also publish broadcast a statement presumably prepared by their "legal" department declining all responsibility for possible happenings to patients, including death; a statement not unlike the one a passenger signs relieving the steamship company from responsibility while he goes sailing the seas.

Then, too, this new group of "prayer doctors" have a "Luther V. Bates, M. D." on their staff. Luther V. Bates is an osteopath with a state license or political title of "physician and surgeon." The precaution of having someone on the staff licensed by the state to sign death certificates and certain other medical papers is a wise provision, as is also that of having a strong legal department.

Several varieties of inadequately "educated" "doctors," including Chinese herbalists, have attractive advertisements in the "Christian Philosophers" magazine. In other words, they appear to have capitalized the fundamental psychology behind cultism in any and all of its forms, and the attempt appears obvious to bring them all together under one banner. If they can succeed, the pre-eminence of "Christian Science" is at stake, and the war should be interesting.

We are very much afraid that most people are not artistic and idealistic and religious enough to see the innocence, or the Christian elevation "The Philosopher" implies he intends to portray in the pictures of the more or less disrobed women who are featured in the magazine. If a choice must be made between "Christian Science" and "Christian Philosophy," Oh Lord, give us Christian Science!

"THE NEXT GENERATION"

Most of us are guilty of often giving utterance to that stupid platitude, "the next generation," when we mean nothing of the sort. Calculated from rather generous minimums, there is one generation started by birth every day of every year. Those of us who are living are, therefore, contemporaries of a sort with just as many generations as we are days old. Generations, therefore, may mean the same thing only to those of us who are the same number of days old.

Toward the end, any generation become quite frazzled. Many of them have gone prematurely, and many of those of former generations have lived on, so that the older we are the greater the number of generations about us, and therefore the more confusing the babble of thoughts and the greater the difficulty of drawing deductions from "averages" that are not. Then, too, senescence is liable to produce minds that jump backward over many generations and interpret them all as yesterdays.

When we speak of generation, therefore, even the best of us, in reality, have in mind groups of generations.

"COMPETENT PHYSICIANS NEED NO PROTECTION; INCOMPETENT ONES DESERVE NONE"

This title is worth reading, pondering over, and filing in that handy file in our minds to which we all refer frequently in the working out of the day's problems. This phrase constituted the slogan of the New Jersey Medical Society, in their campaign for an adequate educational basis for all who would practice the limitation and treatment of disease.

The goal of a satisfactory medical practice act was reached after many years, only to be destroyed again by a legislative act which made it possible for persons without any medical education whatever to practice healing. The medical society is again on a campaign to restore the practice of public health to its logical position of a specialty of medicine. Their slogan for this campaign is "Medical Men for Health Problems."

In announcing their entry into politics to bring their desires about, they do so "not as office seekers, but as physicians, to help guide and direct the state in health questions for which we alone, by our education, by our lives of service, by our standards, experience and associations are fully qualified."

In commenting upon their problem, the leaders of the movement say: "Of course, there will be conflict with those who deny the existence of communicable disease; with those who would tear down the educational barriers which have been built up for the protection of the public only after years of labor; with those who would treat health matters as subservient to other interests; with those who in health matters would regard the medical profession as clerks to command, not as directors to execute. To all such, of course, the medical profession, as a unit, is opposed, as they cannot regard persons holding those views as qualified to properly represent the people of New Jersey."

As noted in California and Western Medicine recently, the board of education of New Jersey is making a tremendous fight to have their own special health board for school children. In other words, they want the schools set up so that the children are completely under their control in health as well as in most other matters—the whole child for the school. New Jersey is not alone in having to face this problem. California physicians would do well to follow the movement with some care.

SPIRITUAL HEALERS

The horde of crusading ministers of the gospel, and other necromancers who live by traveling over the country proposing to cure disease by prayer, laying on of hands, and what not, are encountering some rocky places on their road to prosperity. They are being investigated and the findings are being published.

One of the latest is the rather notorious Rev. C. S. Price "healer." Recently, in Vancouver, he stirred up things so much that the general ministerial association appointed a committee of eleven ministers representing all churches, eight doctors of medicine and a few other scientific men to look into Price's methods and results. This perfectly fair committee asked Price for his co-operation in an attempt to arrive at the facts, and, of course, were refused. Nevertheless, the committee was able to get track of a considerable number of his patients and follow them. Their findings are expressed in these figures: "No organic lesion or defect had been helped, and the only successes had been in cases of functional disturbances. Five cases of typically functional disorders were cured; specific or general improvement, due to improved mental or spiritual outlook of the patient, was found in 38 cases; no change since anointment was recorded in 212 cases, while 17, mainly through neglect of proper scientific treatment, had become worse; 10 seemed to have a better mental outlook; 30 had developed marked depression; 39 had died; and 5 that were anointed and 4 members of families of anointed persons had become insane."

California has had and now has more than her share of these healers who contribute to poor health, insanity, and death among our citizens.

SHALL A PARDONED MEDICAL CRIMINAL HAVE HIS LICENSE RESTORED?

According to the Los Angeles Herald of February 20 "The State Board of Medical Examiners has under consideration today the application of William S. Card, former Oakland physician, for license to practice medicine in the State of California. Card's license was revoked seven years ago, when he was convicted of a criminal operation and sent to the State penitentiary on a charge of second degree murder. He was pardoned by Governor Stephens after serving a sentence of four and one-half years, on condition that he leave the State, which order was rescinded by Governor Richardson in January of last year, when he was granted a full pardon."

We do not know the reasons which actuated Governor Stephens in granting this man's conditional pardon. Nor are we accurately advised as to why, when the conditions were not fulfilled, Governor Richardson converted the conditional pardon into a full pardon instead of returning the man to prison for not living up to the conditions.

However these things may be and whatever the governing motives and influences, it is to be hoped, in the interest of decent medical protection for our citizens, that they won't be effective with the Board of Medical Examiners.

PUBLIC MEETINGS OF MEDICAL ASSOCIATIONS

It ought to be interesting to physicians engaged in public promotion of health meetings to know of the many kinds of meetings now being tried.

The Ontario Medical Association has what is called "The Lay Conference of the Ontario Medical Association." This public organization is promoted and fostered by the committee of the Ontario Medical Association on the "Inter-Relations of the Public and the Medical Profession." The conference has held three annual meetings. The first two meetings were held at the same time as that of the Ontario Medical Association, but the last one was held by itself and independent of the meeting of the Ontario Medical Association. With a program committee made up of both medical and lay persons which provided attractive addresses by prominent speakers, they were able to secure and hold the attention of large audiences. The good and bad features of this movement ought to be studied by other medical organizations. Persons interested in this work will find a full discussion on page 262 of the March issue of The Canadian Medical Association Journal.

ANNUAL SESSION OF UTAH MEDICAL ASSOCIATION

Preliminary program of the Annual Session of the Utah Medical Association is published elsewhere in this number of California and Western Medicine. It is a particularly attractive program with important discussions opened by prominent members of our profession from different parts of the country. The movement by which medical meetings are becoming more and more really short courses of graduate instruction in the various principal topics of medicine is deserving of the highest commendation.

The sessions of the Utah meeting will be held at Logan, June 19, 20 and 21.

The relations between the California Medical Association and the Utah Medical Association are very close and the spirit of co-operation is splendid, this being fostered by the fact that California and Western Medicine is the official publication of the Utah Medical Association.

It is our purpose, if copy is received in time, to publish the complete program in the June issue of California and Western Medicine.

What is Exhaustion—"An animal or man who has first been exhausted by exertion, emotion, hemorrhage, asphyxia, anesthesia or loss of sleep succumbs more readily to infection, and an animal or a man exhausted by infection succumbs more readily to trauma, emotion, anesthesia, exertion, loss of sleep," says G. W. Crile (Arch. Surg., March, 1924). "It becomes of value, therefore, to determine whether the exhaustion, which is one of the phenomena of either an acute or a chronic infection, is essentially different from exhaustion from other causes—emotion, exertion, physical trauma, insomnia." Crile, who has worked for many years on the problem, has just published an exhaustive, experimental study of this question, particularly as affected by blood poisoning, and concludes that exhaustion is an "end-result" of changes located primarily in the brain. The liver and the suprarenals are associated in some curious way in bringing about exhaustion.

Medicine in the Public Press

What Will Be the End Result When We "Educate Everyone in Medicine"?—Some of the editors of our metropolitan newspapers and magazines are beginning to wonder where we are going in our industrious attempt to "educate the public in medicine." Editorially the San Francisco Call recently had this to say:

"It's very easy to get the idea nowadays that you are not normal.

"If you read a book on insanity you will begin to doubt your own sanity. You remember that, back in your childhood, you didn't like to step on a crack for fear it would break your mother's back, and that you used to count everything in sets of three, or couldn't go by a telegraph pole without touching it. Sure signs of abnormality, of course, that could easily be aggravated into insanity. And that's where you are wrong, since a certain amount of insanity seems to be normal.

"A garrulous doctor or a medical case book, meant for the profession, can also introduce doubt into your mind. Reliable doctors know about that and are very careful about suggesting symptoms of disease to their patients. We seem to insist on being sick, regardless of the doctor's efforts to make us well. If the doctor tells a certain type of patient the symptoms of a disease, the patient will do his best to comply with the medical specifications.

"A little reading in the apparently new science of psychoanalysis disturbs many people. They learn that repressions and little fears in childhood may disturb one for a whole lifetime, so they become bundles of walking worries, of 'neuroses,' 'complexes' and such things. And this little knowledge makes them fancy themselves abnormal—poor, extraordinary folk adrift on a miserable sea of normality."

The "White Soap" Snowball—It's amusing how important a little well-directed propaganda will make an unimportant subject. The merry little white soap controversy now making its way along in eastern centers is a good example.

We don't know just how it started, but probably some advertising manager "got sore" because the soap people did not "come through" to suit him, so he started a destructive campaign against any and all soaps except those pure white in color and free of perfume. He based his propaganda—as they all do—upon the alleged fact that any coloring matter, or a few drops of perfume, immediately changes a valuable toilet preparation into a dangerous disease-producing, life-shortening agent. The campaign went swimmingly and secured the endorsement of one school and uplift group after another until the list of endorsers was quite overpowering. Then the doctors were tried and a few of them "fell for it," but most of them poohpoohed the idea quite correctly, of course. It is said that one surgeon told the proponents that he had scrubbed his hands before operating several times a day for forty years with what is called green soap, and that he was still going strong both in medicine and golf.

Of course, it is well known that "white soaps" are good and bad, and so are all other kinds. It is also generally known that a soap good in one water may be hopelessly bad in another water. Thinking, educated people must know that neither a little wholesome coloring matter, nor a small amount of perfume has any determinative action on the quality of a soap.

If this propaganda goes much further, just watch what the soap people will do in the advertising columns and reading matter also of our good newspapers and magazines.

Advertising Clinics and Health Centers—Advertising of clinics and health centers is getting bolder, as attested by the following, copied exactly in wording but not in set-up from the Visalia Times:

"Tulare County Health Center, West Main Street, Visalia. Clinics Dental (School and Adults)—1 to 5 p. m. Children (under 12 years)—Mondays, 9 to 11 a. m. Well Baby Clinic—First and third Tuesdays of each month, 1 to 3 p. m. Medical—Thursday, 8:20 to 10:30 a. m. Surgical-Gynecological—Thursdays, 8:30 to 10:30 a. m. Eye, Ear, Nose and Throat—Tuesdays, 8:20 to 10:30 a. m. Patients will be expected to report during first hours of each clinic. A charge of 10 cents per visit and a small charge for drugs, etc., is asked of those who can pay."

"Cheap" medicine, cheaply provided for by nonmedical people. Some of these agencies claim to be free. Absolutely none of them are. In a very few of them the patient is not charged anything. In most of them the patients pay in accordance with their ability to pay. In most, the doctors donate their services. Practically all others, people serving in these "centers" are paid salaries, and usually good salaries, from funds either collected as taxes or donated. All of the very considerable "overhead" and other expenses are paid from similar funds, plus what is collected from the poor patients or those—who constitute the majority—who, although able to pay, are willing that the state should pauperize them.

All of these places must depend upon advertising for their ability to "get business." Usually they advertise by circulars, personal letters, telephones and through visiting agents. They also manage to get considerable of their advertising matter over to the public as "news" which costs them nothing. It is at least more open, frank and honorable to advertise, like Tulare and some other places are now doing, by buying space in the newspapers.

No Standard Man—Are we giving too much attention to nutrition standards and not enough attention to malnutrition?

This question is raised, says the Porterville (Calif.) Messenger, editorially, by the Medical Journal and Record, which concedes that there are so many variations in physical makeup from the average that it is difficult, if not well nigh impossible, to fix a standard which a general body of persons could beneficially follow.

Not less than a dozen standards have been worked out in Europe and in this country, the journal states, and none of them agree. Proponents of the standards are seeking a "vital index" which would measure the nutrition needs of mankind as a whole. Yet what two persons in the world are identically alike in physical construction and mental capacity? There are none. It is this divergence, physical and mental, which goes to make up evolution. If there were no divergence from the "average," man would never grow. He would always be just "man," "toiling, rejoicing, sorrowing," incapable of mental expansion or physical progress.

The study of what is best and what is not best for his appetites is a worthy study, but it should not be overstressed.

"Physical and Health Education" Expanding in Minnesota—The educational authorities in Minnesota have issued some interesting instructions to teachers, of which the following are examples:

"Require all teachers to give careful attention to children's health and the maintenance of hygienic and sanitary classroom conditions."

"Have teachers co-operate with parents in the remedy of physical defects which may be discovered in children, and with physicians or nurses who may have such cases in charge."

An interesting sidelight in the development of this new medical edict is that local colleges and at least one great university are establishing courses for teachers that will "prepare them to meet these new requirements."

The Rathbone Serum Bill—It is assumed that all fair-minded persons, whether they believe in medicines

or not, endorse movements calculated to insure purity of medicines and the protection of those who do use them against imposition and fraud.

What is called the Rathbone Serum and Vaccine bill, now before Congress, proposes to improve our safeguards as to purity of serums and vaccines and to prevent exaggerated or fraudulent claims in the promotion of these medical agents. The bill is by no means guaranteeing the safety that the public should have, but it is an improvement upon present laws and is a step, however short, in the right direction.

The Federal Pure Food and Drug Act of 1906 and the serum law of 1902 require proper labeling of medicines, including serums, drugs and foods, but names are easy to create. The existing law also provides against the use of "any statement, design or device regarding the curative or therapeutic effect of such article or any of the ingredients or substances contained therein, which is false or fraudulent." Rules and regulations are made by a committee consisting of the Surgeons-General of the Army, Navy, and Public Health Service. Enforcement is by the Treasury Department. Present rules provide for license and revocation of license. Cracks in the fence of the present law are too numerous and of too great variety to discuss here.

The new law places all responsibility for regulation and enforcement in the hands of the Secretary of the Treasury. Why it is taken from the hands of persons of technical training is not clear. The new law also provides that serum vaccines and antitoxins that have not been duly accepted by science shall bear the label "No U. S. Standard of Potency."

Altogether the Rathbone bill steps forward in a halting and somewhat hesitating way in a movement all physicians endorse. The line-up of forces against the bill is its best endorsement. They are practically the same much-interested group that have persistently and somewhat effectively opposed adequate food and drug legislation.

Grape Seeds and Appendicitis—Physicians will be amused to know that "eminent dietitians" are in controversies in some places as to whether grape seeds or "inactivity of the bowels" is most important in causing appendicitis. Just wait until everyone is "educated" in medicine and "public health" and this will constitute a serious topic compared to what we are destined to hear.

Periodic Examination Clinics—A movement is getting under way in some centers for the operation of clinics where complete examinations only are made. They are being operated by this or that welfare organization, and a few by-groups of physicians. Nearly all of them charge fees from 50 cents to $5, and claim they are not practicing medicine because they only make diagnosis and do not give treatment.

Goiter-Iodine Clinics—The hysteria about the prevalence of goiter and the specificity of iodine in curing it has grown to astounding proportions in certain parts of the country.

It is reported that "surveys" of the school children in some places show that more than 50 per cent of them have "the beginnings" of goiter. Some enthusiasts are demanding that the school departments establish goiter clinics, and one of them already has planned a "pre-goiter clinic."

One school in an eastern state has a slogan that "a drop of iodine a day will keep the goiter away." In some places they put iodine in the drinking water; in others they feed it to "suspects" or "pre-goiter" persons in tablet form; in some schools the teacher gives a tablet to each child on Monday mornings between 9 and 10 o'clock, and in places grocery stores are selling table salt mixed with the "normal" amount of iodine.

The next thing we know suicide by drowning will be indecent unless the water contains iodine.

Physician as Editor Needed—A number of commendable efforts are being made in several great centers to bring about closer working arrangements between newspapers and physicians in the praiseworthy cause of bettering the public health.

A particularly significant meeting was held recently in Brooklyn, New York, at which some 400 members of the medical society and the editors of all Brooklyn newspapers met and discussed what could best be done. Mr. Arthur Brisbane advocated short, well-prepared articles as being the only ones that would get wide reactions or that would be extensively read. The statement of H. Sherman Baketel, chairman of the meeting, that every great newspaper should have a medical editor, as it had for sports, society and what not, was generally endorsed by the editors present. The editors, however, wondered where they would be able to find physicians who were also experienced in the pitfalls, problems and methods of publicity. A committee of doctors and editors was endorsed and instructed to try to work out a practical plan whereby the press and the physician might co-operate for the common good.

Philosophizing About Uplifters—"There have always been in the world persons who think they are their brothers' keepers, who would like to be, and who strive to be," says Joseph Collins (The Bookman). "There have always been others who are convinced they know more about matters that are unknowable —such as destiny and how to prepare for it—than their fellows of equal original endowment and of greater opportunity for enlightenment; and they deem it their mission to make us, by exhortation or legislation, conform to their beliefs. They parade their honesty, praise their sincerity, preach their purity and pretend their efforts are for the public welfare.

"One of their beliefs is that they know good and bad, proper and improper, salutary and pernicious literature, and they are constantly striving for legislation that will force their judgment upon the public. The most naive reason they give for their activity and ardency is that they want to protect their children. To make the state share the parent's responsibilities may lessen the burdens of parenthood, but it is unlikely that it will improve the child's chances."

The Hazards of Beauty-Specialty Surgery—The press in many places, including California, is recording an unusual number of malpractice suits against plastic surgeons, as well as quack beauty doctors. We are not interested in the quacks, but we are interested in plastic surgeons and particularly in patients. The first thing an educated physician should do before he enters this field is to protect himself and those dependent upon him by a safe policy of at least $50.000. Patients, of course, understand the possibility of accidents and failures, and it is better to have witnesses to these understandings than it is to have a waiver agreement in writing.

Our Local Taxes—Recently published figures about our county and municipal taxes, when reduced to figures that mean something to average people, show that we are paying for the operation of county and municipal government an average of over 25 cents a day for every man, woman and child in the state. If state and federal government taxes are added, the figure is more than doubled, and if income and inheritance taxes are added—but what's the use?—the first figures are enough.

We are not going into a discussion about taxes further than to state that they are important in the causes of unhappiness and of sickness. We also want to state that not enough of tax money is expended for legitimate better health service, and too much is wasted in health luxuries and the promotion of health fads.

Should Criminals be in Hospitals, Prisons, or Hospitals in Prisons?—One of those traveling health experts who give "intensive health courses" of one or two evenings recently secured first page headlines by

stating that eight out of ten of our state prisoners should be in a hospital. This man, like all such, was a "world authority," a "savant," a "specialist," and of course a "doctor."

It is reported that this "specialist" held a lecture clinic in a hotel, at which he "challenged the active interest of a group of prominent San Francisco physicians and surgeons with the statement that chronic bronchitis, chronic deafness, rheumatism, earache, stiff neck, nervous debility, melancholia, neuralgia, infantile paralysis, tonsillitis, lumbago, congestive headache, menopause, varicose ulcers, high blood pressure and numerous other ailments would yield to electro-therapy. Only through electrical stimulus, he urged, can torn muscles and nerves be restored to normalcy."

Some challenge!

Dishonest Slogans—A health slogan that is truthful or that definitely implies may be of value in constructive health work. Conversely, one that implies what is not a fact unquestionably does harm to the worthy cause it proposes to help.

Of the seemingly endless variety of the widely quoted health slogans, a substantial percentage are definitely untrue in fact, imply the false, and what is perhaps even more harmful, they state or imply indefiniteness and ambiguity. One of these now before the public is particularly untrue and is constantly being challenged. It is to the effect that "a physically handicapped child cannot be properly educated."

The medical record of the leading men in all walks of life of this or any other period will show that a quite substantial percentage of them have now and have had from their early school days definite recognizable and understood physical handicaps. Of course, life's promises and opportunities are improved by the removal or amelioration of handicaps wherever and whenever possible, but to make a slogan definitely calculated to discourage the thousands of youths who have incurable handicaps and which at the same time is an insult to many of our leading citizens, is unwise and reprehensible.

An American "College" of Plastic Surgery Organized—Another national "college" of a specialty of medicine was recently organized with headquarters in Chicago. T. Floyd Brown of Los Angeles is president and J. Paul Fernel of Chicago is secretary of the new organization. The first purpose of the new college, according to reports, is to establish a graduate school.

It is said that this new organization will not follow the international association of the same group recently formed in London and include the work of "beauty specialists" in their field.

Campers Carry a Spade—Under this title the Bulletin of the California Health Board carries a sane brief article that ought to be read and re-read by every vacationist.

The Chicago Session — Local Committee of Arrangements—The Local Committee of Arrangements for the Seventy-fifth Annual Session of the American Medical Association, to be held in Chicago, June 9-13, 1924, consists of: Chairman, J. W. Van Derslice; treasurer, John S. Nagel; secretary, Hugh N. MacKechnie, and Isaac A. Abt, Archibald Church, D. J. Davis, Ludvig Hektoen, C. E. Humiston, Frank Morton and J. H. Walsh. Mrs. Charles Spencer Williamson will serve as chairman of the Ladies' Entertainment Committee. The office of the Local Committee of Arrangements is located in Room 1522, Marshall Field Annex, 25 East Washington street, Chicago. This committe is ready to extend any assistance within its power to physicians who expect to attend the Chicago Session. The committee has held a number of meetings, and great progress has been made in arranging the important details of the session. The committee may be addressed as indicated above by any who desire information.—Journal A. M. A., February 9, 1924.

COUNTY NEWS

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary)—Providence Hospital staff held its annual banquet April 8, at the Hotel Oakland. Some sixty-five members gathered around the festive board. The guests and speakers of the evening were J. Wilson Shiels of San Francisco, Ezra Decoto and W. H. L. Hynes of Oakland.

At the regular monthly meeting of the staff of the Alameda County Hospital, the following papers were presented: "Hydronephrosis," by A. M. Meads. "Brain Surgery in Case of Post-traumatic Epilepsy," by E. W. Goodman.

At the staff meeting of the Samuel Merritt Hospital, pinicillium infection of the lung was discussed by Charles McVey. Sumner Everingham gave an analysis of the cases of intestinal obstruction in this hospital during the year 1923.

The following case reports were presented at the Fabiola Hospital staff meeting, March 25: Carcinoma of the stomach, with pathological specimens—E. G. Simons. Radiographs of the same case, showing development of the lesion over a period of six months—Charles E. Peters. Electrical burn of the elbow and gluteal region, with presentation of case. Osteomyelitis of femur, with radiographs. Foreign body in the bronchi, with x-ray pictures—E. A. Majors.

Papers on "Late Pulmonary Hemorrhage, Following Fractured Ribs," by W. L. Bell, and "Caudal Anesthesia," by A. M. Meads, were also presented.

The staff meetings of the hospitals are well attended, and the discussions are interesting and instructive.

Alameda County Institutions' Commission — The membership of this commission has been increased from six to nine, and three physicians were elected to fill the newly created positions: George Rothganger, G. G. Reinle, and Guy H. Liliencrantz. As O. D. Hamlin and R. G. Legge are already members, this gives five out of the nine positions to the medical profession.

CONTRA COSTA COUNTY

Contra Costa County Medical Society (reported by L. St. John Hely, secretary)—The regular monthly meeting was held at Crockett March 29.

The lecture by Hans Lisser of San Francisco discussed the subject of ductless glands. This lecture was illustrated by lantern slides. The doctor covered as much of the pathology and treatment of the ductless glands as the time would permit. The value of this lecture is hardly appreciated until it is digested. The average physician, whether practicing in large or small communities, is groping in the dark, in regard to the treatment of ductless gland disturbance. This lecture would certainly enlighten them; so at least was the expression of the members who were fortunate enough to be present at Crockett. There is a wish among the members to have Lisser deliver a series of at least three lectures along this subject to the society.

The lecture was held at the Crockett auditorium, from whence the members were invited by mine host, J. M. McCollough, to a luncheon and picture show at the Crockett Hotel.

The following members were present: Clara and J. B. Spalding, William A. Rowell, John Beard, F. Lisle Horne, H. L. Carpenter, Hall Vestal, J. M. McCollough, L. St. John Hely.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—The regular meeting of the Fresno County Medical Society was held at the

Nurses' Home of the General Hospital of Fresno County on April 1, 1924. Twenty-three members and six visitors were present. Members—Adams, Aller, Barrett, Bell, Brown, Dearborn, Goldberg, Jamgotchian, James, Jorgensen, Kjaerbye, S. M. Long, Manson, Mordoff, Milholland, Newton, Pettis, Pomeroy, Schottstaedt, Sheldon, Scorboro, Tillman, and Tupper. Visitors—H. O. Collins, Cook, Gregory, Burk, Victor Randolph, and Harry Robertson.

Doctor Kjaerbye reported for the Crime Commission on the advantages of using county prisoners for common labor on the county roads. Tillman moved, Couey seconded, that the Fresno County Medical Society endorse the recommendation of the Crime Commission for the use of county prisoners on the county roads.

W. R. P. Clark, director of the Bureau of Tuberculosis, San Francisco Board of Health, gave an interesting talk on tuberculosis. He first dwelt on the work being done in San Francisco, the need for further work, and the immediate plans for the future in the care of tuberculous patients. He next exhibited some x-ray films of the chest, discussing the differential diagnosis of tuberculosis.

James T. Watkins of San Francisco presented a paper on the "Diagnosis and Treatment of Back Injuries." He took up also the static troubles of the back. He considered strains, and slips of sacro-iliac and lumbo-sacral joints; also fractures of the vertebrae and their treatment in detail. Discussion—Adams, Aller, and Watkins.

The application of H. M. McNeil of Big Creek was read and referred to the proper channels for action.

The application of G. C. Nedry was reported on favorably by the state association and the board of censors, and he was unanimously elected a member of the society.

After adjournment a buffet lunch was served.

Burnett Sanitarium—The twenty-fourth annual graduation of nurses of the Burnett Sanitarium of Fresno took place April 1, 1924, at the Y. M. C. A. The exercises were preceded by an alumni dinner at the Burnett.

Mr. David Ewing gave the address of the evening to the graduating class. Rev. G. W. Fletcher offered the prayer and gave a short address. Miss Little, superintendent, and D. H. Trowbridge, secretary, gave talks to the graduates.

A wrist watch was presented to Miss Grace Von Volkinburg, the gift of Trowbridge, for the best practical work during the course of her training. Miss Maries Sievking received a diamond pin, the gift of Maupin, for the highest marks in theoretical work. Miss Dorothy Waag and Miss Annie Olsen received honorable mention for excellent work in practice and theory. Many of the staff doctors and their wives were present, besides the relatives and friends of the graduates. The evening was concluded by a dance.

MARIN COUNTY

Marin County Medical Society (reported by J. H. Kuser, secretary)—The society met March 27 at Jones' office, San Rafael.

Members present: President Dufficy, Jones, Mays, Kuser.

The invited guest of the evening was Thomas Addis of Stanford Medical School, who gave an interesting talk on nephritis, which was of great interest to all those present.

Owing to a previous meeting during the same week, but few members were present.

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—On April 1 the society held its regular meeting at the County Hospital, San Bernardino, with thirty-five present, forty absent, ten guests.

The program consisted in "Observations in Surgical Pathology," by C. G. Hilliard; discussion opened by E. J. Eytinge. "Prophylaxis and Treatment of Non-Toxic Goiter," by D. C. Mock; discussion opened by K. L. Dole. "Treatment of Toxic Goiter," by Joseph K. Swindt of Pomona; discussion opened by Phillip Savage.

R. L. Alexander of Ontario has transferred his membership to the Pomona Valley Section of the Los Angeles County Society.

J. A. Connell, formerly located at San Bernardino, is now located in Riverside, and has been transferred to that society.

SAN DIEGO COUNTY

San Diego County Notes (reported by Robert Pollock)—Quite a group of the San Diego County members motored to Santa Barbara to participate in the spring meeting of the Southern California Medical Association, held in Santa Barbara early in April. They enjoyed a splendid program.

Hospital activities in San Diego are rapidly assuming definite form. The new Mercy Hospital, of the Mercy Sisterhood, to replace their former building, which has served its purpose so long under the name of St. Joseph's Hospital, has its roof completed and in a few days will permit of my sending the Journal a photograph of the finished product. The new La Jolla Hospital, of fifty beds, has reached a similar stage, and being a smaller structure, will probably be completed, furnished and opened to the public in about ninety days. These two hospitals, added to the splendid Naval Hospital, present a group of modern structures for the care of the sick of which San Diego may well be proud. The proposed new McCullough Hospital, a private enterprise which has in the past thoroughly demonstrated its utility, has its plans completed, its ground selected and will undoubtedly enter its new quarters before the first of next year. Renewed activity is also in evidence to build a community hospital, a magnificent site overlooking the park having recently been donated for that purpose. This movement, which has been feeling its way carefully for some time, will take the form of a modern hospital, built by all the people for all the people and expressive of the modern idea of helpful citizenship.

The county society, to the number of twenty-five, recently visited the Imperial County Society at El Centro and presented a symposium on our views of the value of insulin after our first year of experience with it. Papers on the subject were presented by L. H. Redelings and Robert Pollock, and liberal discussion was entered into by Burger, Burton, Harding, Howard, Rees, Stealy, Thornton, Redelings and Pollock. H. P. Newman at the same meeting made a strong appeal for the support of the Gorgas idea, while Councilor Carrington made an interesting talk on what the state council has recently been doing for the profession it represents. At the conclusion of the meeting Kinney, on behalf of the San Diegans, extended a cordial invitation to the Imperial County Society to furnish a scientific program in San Diego, Saturday, June 28, and enjoy such hospitality as that city wishes to extend.

At the regular meeting, held in Science Hall, Balboa Park, April 8, Mott H. Arnold presented a terse and well-constructed paper on Pyloric Obstruction in Infancy. As a model of briefness, conciseness of statement and thoroughness in covering the subject, his paper left little to be desired. Discussion, like the paper itself, was brief and to the point, and at its conclusion Charles R. Ball of St. Paul, Minnesota, responded to an invitation from the chair with an extremely interesting discussion of Syphilis in Relation to the Nervous System.

SAN FRANCISCO COUNTY

Proceedings of the San Francisco County Medical Society (reported by J. H. Woolsey, secretary)—During the month of March, 1924, the following meetings were held:

Committee on Medicine—March 4. The interest of the general man in neuropsychiatry—M. B. Lennon;

Tryparsamid therapy in neurosyphilis—H. G. Mehrtens.

General Meeting—Tuesday, March 11. New Constitution and By-Laws adopted; Observations on ovarian auto-transplantations—F. R. Girard; Testicular substance implantations—L. L. Stanley, San Quentin.

Committee on Surgery—Tuesday, March 18. Diagnosis of intracranial injuries—H. W. Fleming; Treatment of intracranial injuries—H. C. Naffziger.

Committee on Eye, Ear, Nose and Throat—Tuesday, March 25. Clinical meeting at Stanford University Hospital.

Southern Pacific General Hospital Staff Meeting (reported by W. T. Cummins, secretary)—The monthly staff meeting of the Southern Pacific General Hospital, San Francisco, was held on April 2 in Huntington Hall. Program: "Backache," by Walter I. Baldwin; discussions—Stanley Stillman and W. B. Coffey, Surgical; G. J. McChesney, Orthopedics; Fred W. Lux, Medical; W. F. Schaller, Neurological; G. L. Eaton, Genito-Urinary; M. P. Burnham and L. B. Crow, Roentgenological.

Franklin Hospital Staff Meeting (reported by Adolph Rosenthal, medical director)—The monthly staff meeting of the Franklin Hospital was held on Monday, March 24, J. Wilson Shiels presiding.

The speaker of the evening was M. P. Burnham, who delivered an interesting lecture on "Dyspepsias, Reflex to Chronic Infective Lesions of the Liver and Its Distributing System," illustrated with typical x-ray plates. The subject prompted more than the usual discussions by Guilfoil, Harder, Ingber, Rodenbaugh, Yoell and Shiels.

All felt that they owe a debt of gratitude to Burnham for his masterful presentation of the subject.

St. Joseph's Hospital Staff Meets—On April 9 St. Joseph's Hospital Staff met and heard case reports from C. O. Southard (mastoiditis), A. S. Musante (pancreatic carcinoma and cholecystectomy), E. T. Krebs (cerebral embolism), and C. E. Smith (chronic bronchitis).

C. E. Nixon spoke on "Neurological Errors in General Practice," demonstrating that nervous diseases simulated many other conditions, on account of the distribution of the nerves. Syphilis is the most common imitator, especially as exemplified in the early gastric, laryngeal and bladder crises of tabes dorsalis; and spinal fluid examination is needed to differentiate. Encephalitis, obesity, hysteric symptoms, numbness, brain and cord tumors, cervical ribs, and peripheral neuritis were described and the prognostic importance of an early diagnosis shown. Sterling Bunnell spoke on "Indications and Methods for Blood Transfusion." Effects of this procedure are an increase of volume pressure, antiseptic and hematopoietic properties of blood. Indications are acute and chronic bleeding, shock, anemia, especially secondary, cachexia, even of infants, chronic and acute sepsis, the latter debatable; burns, operations on icteric patients, hemophilia and hemorrhagia neonatorum, purpura, leucemia, lead poisoning, pellagra and gas poisoning. Reactions from the citrate method and pure blood were compared. Typing of bloods and the Kimpton-Brown technique, and accidents and their prevention were explained by demonstration of the apparatus.

L. Crow showed radiograms of pulmonary infract, hypernephroma bone lues, abdominal aneurysm, and pericarditic effusion. C. E. Smith presented pathological specimens of brain, liver, heart and abdomen.

The program for May 21 follows: "Specific Obligations of Physicians Under the Law," by Mr. Hartley F. Peart; "Local Police Regulations Affecting Doctors," by Captain Duncan Matheson, and "Plastic-Surgery," by G. W. Pierce.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by Alex C. Soper, secretary)—The society held its regular meeting April 14 at the Cottage Hospital, President Robinson in the chair. Present, twenty-two members, four interns and one guest.

The matter of the proposed Therapeutic Gymnasium was again tabled, due to press of other business. Correspondence was read, with the State HQ., regarding Industrial Medicine Questionnaire, regarding Medical Defense, with the A. M. A. regarding "Hygeia" magazine, and notice again made of society dues payable.

The secretary brought to attention the character of the patent medicine ads being carried over the names of leading drug stores in town, as being inimical to the interests of the ethical medical profession; and it was moved, seconded by Pierce, that the president appoint a committee to investigate the matter and to draw up a letter to be approved by the society, protesting against such ads. Passed unanimously. Pierce, Stevens and Soper were appointed.

Case reports followed, each five minutes: "Bone metastasis in carcinoma of the prostate"—Henry Ullmann; "Acute suppurative mastoiditis treated conservatively"—Henry J. Profant; "Parotitis following general surgery"—Horace F. Pierce; "Aphagia"—Hugh Freidell.

The main address of the evening was on "Surgery of the Hand," by Sterling Bunnell of San Francisco, illustrated with lantern slides and with types of splints and apparatus used. This very thorough exposition of technique was much appreciated by the members, and discussion was participated in by Pierce, Schurmeier, Ullmann, Nuzum and Stevens.

SONOMA COUNTY

Sonoma County Medical Society (reported by N. Juell, secretary)—The Sonoma County Medical Society met at the Santa Rosa Chamber of Commerce, Thursday, April 10, with twelve members and eighteen visitors present. There was a general discussion, led by Elizabeth Emerson, of the State Board of Health's plan for a medical examination of all children of preschool age entering school this fall, in which all doctors and dentists are expected to participate, the examination to take place between April 15 and May 15. Dr. Leppo, dentist, spoke on the dental problem. The idea was to decide on the chief points of child hygiene which we should attempt to impress upon the mothers who will be present at the examination.

Kristine Blickert Johnstone of Eldridge was admitted to membership.

The Seminal Vesicles in Arthritis—The necessity of examination and of immediate treatment in those cases of arthritis which are due to the seminal vesicles being the primary site of infection, as in extension of a gonorrheal infection is urged by Daniel E. Shea, Hartford, Conn. (Journal A. M. A., January 26, 1924), and attention is directed to cases in which the seminal vesicles are presumably the site of secondary infection from teeth, tonsils or some other area of infection, and in turn become the focus that supplies toxins to the synovial membranes in arthritis even after the primary area has been destroyed. Cases are cited in which every one of the patients had had arthritis for some period of time, and many of them had had other foci of infection removed with no effect on the arthritic condition. Among the areas previously treated were the tonsils, teeth, colon, and skin. In several of the cases the same organism was found in the original area of infection as was found in the seminal vesicle. Organisms other than the gonococcus found were: Micrococcus catarrhalis, Staphylococcus albus and aureus, Bacillus coli communis, Streptococcus viridans, hemolytic streptococcus and diphtheroid bacillus. Treatment consisted, as a rule, of non-surgical methods; namely, massage of the seminal vesicles and prostate, heat to the parts and vaccines. Direct medication to the seminal vesicles was used in several cases. Surgical intervention, consisting of vesiculectomy, was used only in very acute conditions in which the contents of the vesicles could not be expressed; also, in one case of hard, fibrous, indurated vesicles that were producing much discomfort.

Utah State Medical Association

About the Annual Meeting (reported by William L. Rich, secretary)—The program for the annual meeting of the Utah State Medical Association, to be held in Logan June 19, 20, 21, is now being prepared. We are assured of the following speakers: Dean Lewis of Chicago will be with us and will probably give us a series of talks. L. G. Rowntree of the Mayo Clinic has consented to give two or three lectures. E. V. McCullum of Johns Hopkins will give the following papers: "The Present Status of Our Knowledge of Vitamins"; "Nutritional Aspects of Preventive Dentistry"; "Present Status of Our Knowledge of the Etiology of Rickets." John B. Doyl of the Neurological Department of the Mayo Clinic will speak on "Clinical Manifestation and Treatment of Encephalitis Epidemica," and probably two other subjects not yet announced. We are also expecting Professor Alfred S. Warthin of Ann Arbor, Mich., and R. C. McClain of Detroit, Mich., and possibly W. G. Anderson of Yale University.

We anticipate an excellent program and a good attendance. The visitors who arrive in Salt Lake will be taken in automobiles to Logan Thursday morning. It is planned to have the scientific session begin Thursday, June 19, at 2 p. m. There will be a meeting of the Council and House of Delegates at 10 a. m. on Thursday preceding the opening of the scientific session. The annual banquet will be held at the Hotel Eccles, Thursday evening at 7 p. m., at which time we shall hear the president's address and the report of the advisory committee to the Medical Department of the University of Utah. Following this there will be toasts and a relaxation from the more serious aspects of medicine.

The ladies are invited, but will be entertained separately by the ladies' committee, who are making preparations for a very pleasant evening.

On one evening there will be a public meeting, to which the general public will be invited.

Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—The regular meeting of the Salt Lake County Medical Society was held at the Commercial Club, Salt Lake City, Utah, Monday, March 24, 1924, President A. A. Kerr presiding. Sixty-three members and one visitor were present.

The subject of the first paper on the program was "Encephalitis," by J. R. Llewellyn. He went into the history of the disease, its relationship to influenza, the bacteriology and the treatment by Rosenow's anti-streptococcic serum. He reviewed four cases which he had treated, from which conclusions cannot be definitely drawn as yet. This very interesting paper was discussed by F. J. Curtis and R. T. Jellison.

The second paper was entitled "Drug Eruption," by Clifford Pearsall, in which he clearly brought out symptoms, types and time of appearance of eruptions in parts of body involved. He discussed in detail eruptions caused by arsenic, copaiba, quinine, coal-tar drugs, salicylates, luminal, phenolphthalein, bromine, and iodine. This paper was discussed by W. L. Rich and E. L. Skidmore.

R. O. Porter's application for membership and his transfer card from the Cache Valley Medical Society, were considered and he was elected to membership.

F. G. Eskelson and Scott A. Jones were also elected to membership.

Communication to Rich from the secretary of the California Medical Association was read, inviting the Utah State Medical Association to send a fraternal delegate to the fifty-third annual meeting of the California Medical Association.

A letter from the executive secretary of the Bureau of Legal Medicine and Legislation, American Medical Association, addressed to Rich, secretary of the Utah State Association, was read. This letter urged the Utah State Association to request Senator Smoot to use his influence to have the Harrison Narcotic tax reduced and also to allow physicians to exempt from their Federal Income tax, money expended in post-graduate work. Kahn moved that a committee of three men who would have personal influence with Senator Smoot, be appointed by the President to offer suggestions as outlined in the letter and send them to Senator Smoot in the form of resolutions from this society as a component part of the Utah State Medical Association and that Rich request the State Association to take the same action. Rich suggested that all county societies take the same action. Motion was seconded by C. A. Broaddus. Carried. Tyndale suggested that all physicians who know Senator Smoot send him a personal letter in regard to this matter.

Calderwood reported for his committee that the city commission are considering transferring the Baby Clinic to the Community Clinic, but no action has been taken as yet. President Kerr told of his conference with the mayor in regard to the Baby Clinic. Kahn reported that the Liability Insurance Committee was not ready to give a final report as yet, but would give it at the next meeting.

Tyndale reported for the Library Committee announcing that the loan library would be locked up, the key in possession of the librarian. He reported several current magazines were missing and requested that they be returned at an early date. He also requested that members hand in a list of the books that they want purchased to any member of the Library Committee.

Calonge announced that he would be glad to receive any evidence of the activities of the so-called ambulance chaser lawyers, as a newspaper man was anxious to secure evidence against them. Hampton moved that the society purchase a blackboard. Seconded and carried. Straup announced that a clinical meeting would be held at the Salt Lake County Hospital on March 31, and invited all members of the society to be present.

April meeting of the Salt Lake County Medical Society at the Commercial Club, Salt Lake City, Utah, Monday, April 14, 1924, President Kerr presiding.

Fifty-eight members and three visitors were present.

J. F. Critchlow gave a preliminary report on a case of acute traumatic rupture of the diaphragm with herniation of certain viscera. He reviewed literature and described the operation under paravertebral nerve blocking.

H. C. Holbrook presented two cases of torticollis recently operated.

T. B. Beatty spoke briefly on the goitre problem of the school children of Utah and requested assistance fom the local physicians in the examinations of the Salt Lake City school children.

Professor George S. Snoddy of the University of Utah talked briefly about his stability test, its application in forecasting epileptic seizures and urged the physicians to make use of his tests in the treatment of epileptics.

F. F. Hatch read an extremely interesting paper on the "Diagnosis and Treatment of Diseases of the Prostate." He dwelt on the indications for prostatectomy, preliminary care, anesthetic and operative technique, complications and post-operative treatment. He reviewed his series of cases and demonstrated some x-ray films. His points were illustrated with views projected on the screen. This paper was discussed by F. A. Goeltz and Ernest Van Cott.

S. C. Baldwin moved that V. J. Clark's paper be

postponed until the next meeting. Seconded and carried.

Delegates for the annual meeting of the State Association were nominated and the following members were elected: A. A. Kerr, A. C. Behle, J. C. Landenberger, M. M. Critchlow, E. M. Neher, W. R. Tyndale, Ernest Van Cott, C. L. Shields, H. P. Kirtley, W. R. Calderwood, D. L. Barnard, V. J. Clark and F. B. Steele.

The following members were elected alternates: William F. Beer, T. B. Beatty, F. E. Straup, Clifford Pearsall and David Smith.

Sol Kahn read his report for the Liability and Insurance Committee. It was moved that it be adopted. Seconded and carried. A. A. Kerr read a letter from the Thompson Investment Company, describing its new building and the inducements it offered for physicians. The floor plan was also shown. This was referred to the Building Committee.

President Kerr read a report of the Necrology Committee by D. L. Barnard, chairman, relative to the death of our member, Dr. J. Lane.

Woman's Auxiliary, Salt Lake County Medical Society Organized (reported by Mrs. Lawrence Ossman) — The Woman's Auxiliary to the Salt Lake County Medical Society was organized March, 1924, with the following officers: President, Mrs. F. M. McHugh; first vice-president, Mrs. Spencer Wright; second vice-president, Mrs. J. C. Landenberger; secretary, Mrs. Claude L. Shields; corresponding secretary, Mrs. Lawrence Ossman; treasurer, Mrs. A. J. Murphy; parliamentarian, Mrs. Scott Keyting.

Nevada State Medical Association

HORACE J. BROWN, M. D., Reno.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

Washoe County Medical Society (reported by Vinton A. Muller, secretary)—A regular meeting of the Washoe County Medical Society was held on Tuesday evening, April 8, at the Commercial Club, in Reno. President R. H. Richardson presided at the meeting, and there were twenty-two members present.

The minutes of the previous meetings of February 5 and March 11, 1924, were read and approved, after which the society listened to an extremely interesting paper given by Ernest H. Falconer, Associate Clinical Professor of Medicine at the University of California. Falconer spoke at length on the changes taking place in the bone-marrow in the anemias and the leukemias. The title of his paper was, "Can We Stimulate the Bone-Marrow in the Treatment of Anemias?" and he covered the subject in a very thorough and most interesting manner. His talk was illustrated with lantern slides.

The applications for membership of E. E. Hamer of Carson City, Nev., and W. M. Edwards, Mason, Nev., were read and given over to the board of censors, to be voted upon at the next meeting. The board of censors had not met to discuss the applications of Ira Sellers and Barrows; therefore, these applications cannot be voted upon until our next regular meeting in May.

Physical Factors Pertaining to Hay-fever — It is A. G. Gould's, Ithaca, N. Y. (Journal A. M. A., March 1, 1924), opinion that there are a great number of factors which have to do with the severity of hay-fever. Some of these undoubtedly are the amount and frequency of rainfall; the amount of growth of the plants responsible for the hay-fever, which is influenced by the amount and frequency of the rainfall, the temperature, and the amount of sunlight; the velocity of the wind; the amount of exposure to the pollen; the state of the anatomy of the nose, and the personal hygiene of the patient. There may be some cumulative immunity from year to year, but Gould believes that its importance has been exaggerated.

CORRESPONDENCE

Editor California State Journal of Medicine, Balboa Building, San Francisco, Calif.

Dear Sir—Enclosed find case report which some of us have considered rather interesting.

Very truly yours,
LINWOOD DOZIER, M. D.

Case Report (by Linwood Dozier, Stockton, Calif.) —J. J. R. Born 1885. Referred for treatment, August, 1914, by Fred Clark, with diagnosis of general paresis. The man acknowledged to a primary several years before. His reflexes were exaggerated and he had the usual inco-ordination of speech; confusion, etc. Wassermann in blood was ——; in spinal fluid +++.

The man received hydrotherapy, was put and kept on KI and Hg intramusc. and courses of 0.6 salvarsan intravenous.

By August, 1915, he had improved enough to leave the sanatorium and care for himself, but in October, 1915, the man suddenly had a severe headache; became dizzy and aphasic and with a little weakness of right side. He was seen by Moffitt and James Pressley, who concurred in diagnosis of general paresis. He soon recovered from this attack. From August, 1914, to October, 1916, he received continuously KI in large doses—Hg intramusc. and thirty-four doses of 0.6 salvarsan.

In August 1916, he had a epileptiform attack; got blue in face, etc., remained confused and then rapidly went into deep coma and remained semi-comatose for several days, with recurring convulsions. Under restraint a decubitus about 6 x 6 inches developed over and to depth of the sacrum. Moffitt in consultation, in October, 1916, advised against further anti-luetic treatment. The man left the hospital in six months with decubitus practically healed and was under care of nurse for another six months, but showed a gradual improvement for several years.

Before his trouble in 1914, the man had been athletic and had been in charge of a large and complicated business house, and popular socially. At present, 1924, he is in charge of one department of this former business house and is extremely exact in all transactions. Socially, he is fairly sure of himself; mixes moderately and enjoys old acquaintances, but seems to seek very few new ones.

This is reported as a case of general paresis of ten years' standing treated by intravenous salvarsan and now arrested. Search of the literature available shows no parallel cases of over five years' duration.

A New Test for Bile Pigments in Urine, Bile and Blood Serum — While investigating the relation of bile pigments and metabolism in dogs with complete obstructive jaundice, or with biliary exclusion in which the bile was eliminated through the urine by means of a cholecystonephrostomy, Robert Kapsinow, New Haven, Conn. (Journal A. M. A., March 1, 1924), examined the urines as a routine for evidences of intestinal putrefaction as demonstrated by the test for indican. He rarely found the indican test positive, but instead observed that the urine became deep green in every instance. The test for indican employed was the Obermayer test. It was found that all urines containing bile pigments when treated with Obermayer's reagent became a deep greenish blue at once. This color was not extracted by the chloroform, and therefore could not have been due to indican. Many urines from normal dogs did not give this reaction. The test was performed on many specimens of urine obtained from patients, and in no case was it positive except when bile pigments were present. None of the drugs used in medication were found to interfere with the test.

MEDICAL ECONOMICS

Hospitals and Real Estate Values—Hardly a week passes that the press doesn't carry doubly ludicrous stories of contests and controversies over the influence a hospital may have upon the value of surrounding real estate.

In the first place, a modern hospital should not and does not in most urban communities cause a depreciation of property—quite the reverse. For instance, two of the newest and finest hospitals in one great Eastern city were secured for the most prominent street in the city—or in the world for that matter—because the surrounding property owners made concessions to get it there. A modern hospital is just as much an asset to a busy street as is a hotel or department store. The objections of realtors is based not upon hospitals as they now are conducted, but upon their reputation during the lifetime of past generations.

In the second place, it is inconceivable to hospital executives that any group of people would want to build a hospital on down town business streets with their very high values, unless they propose to build the new and modern "hotel-hospital," now being constructed in so many places. With these "hotel-hospitals," the lower floors are used for hotel purposes and for stores, with rentals that offset the excessive values of real estate taxes and insurance. The upper floors are, of course, hotels. Few, if any, hotels even try to utilize more than a fraction of their ground floor space for hotel purposes. Nor could they afford to do so even at modern hotel rates which even a plutocrat would not call cheap.

Otherwise, every reason exists for locating hospitals farther out in cities where property is less expensive, noise not so great, and where there are better parking and breathing facilities. Most people who get sick do not live "down town," and there is no reason why they should be taken there when they need hospital care, unless it is felt that the noise, dust, hustle and bustle of a "down-town" section is considered good "medicine."

It is only a habit, and a very foolish obsolete one at that, that keeps doctors' office buildings "down town." Many cities are rapidly getting away from the custom, and as sure as the sun shines more of them will do so, once the movement gains a little more headway.

The primary and only interest physicians have in this question is because of its influence in the cost of good medical care, whether the patient is sick in a hospital, or walks to a doctor's office. "Overhead" is an important item of hospital costs, and it takes a good share of the doctor's office income. Good management, and with the elimination of some of the "luxury" features, would decrease prevalent hospital deficits, improve the doctor's net income, and help reduce the cost of medicine to the patient.

Too Many Official Health Units—It has been for some time an obvious fact that there are too many small, insignificant, ineffectively operated official health units in this and in many other states. Each county has a health unit—as it should have—and it would be all right if the division of authority and responsibilities stopped here; except possibly in some counties with more than one large city. The average county has from one to several small incorporate towns of from a few hundred to a few thousand inhabitants. Each of these has its own official health machinery. The border line between these towns and the rest of the county, of which they are a part, is often a quarantined zone where controversies about who's who and what's what between county authorities and city authorities go on indefinitely. A motorist passing through many of these little towns on the state and county highways can tell when he passes into the "township" and out again simply by the roughness of the road at the boundary lines. Much the same sort of roughness is apparent in health work.

More counties should do what some have done and others are trying to do by extending the county health board's responsibilities to include the incorporated townships of the county. San Luis Obispo County is now engaged in an attempt to bring this about. If they succeed and will then establish a strong county health board with a full-time executive officer, they can both reduce the costs of health work and have better service than is possible under the present plan of separate boards for each of the several small towns of the county.

Venice Emergency Hospital—The municipality of Venice has opened an emergency hospital next door to the police headquarters. According to the city manager, the hospital and clinic is conducted by L. L. Magee, city health officer, and is equipped to handle any sort of an emergency occurring at any time.

Glendale Municipal Clinic—A municipal clinic is being operated at the corner of Brand boulevard and Los Feliz road by the city health officer, G. Kaemmerling. The health department collects fees for "part-pay" patients and renders free service to others.

Health Center Work in Visalia—A health center or child welfare conference was conducted on West Main street by school and public health nurses recently. Miss Marion F. Horrocks and Mrs. Meta V. Keener were in charge. Mothers were invited to bring their babies for examination. Instead of a physician being in attendance, as in a clinic, the nurses weigh and measure the children and give advice on health problems. If defects are found, the mothers are referred to their private physicians or, if the occasion warrants, treatment will be given at the clinic.

Mothers' Helpers—There seems to be springing up over the country a new class of those who serve. They are called "mothers' helpers" or "home helpers." Some of them may be engaged by the day for as long as they are needed, while others are "visiting mothers' helpers" who spend so many hours at certain times of the day helping to hold the home together during sickness. In some places, these persons are being given instruction in practical home nursing. One New York City organization maintains a bureau, or register, for placing "mothers' helpers." The principal difference between "mothers' helpers" and maids appears to be in the title, and in placing the service upon a temporary basis.

An Interesting Health Development—The first chapter of an interesting controversy between the political powers and the county medical society in a New York county was recently concluded. The political body had decided to turn over a certain important phase of medical practice to the usual groups of technicians who were to practice medicine under the usual misleading names and were to get their salaries and protection from lay organizations supported by subsidies. The medical society took the problem to the public and won out to the extent that all classes of technicians' work was to be frankly labeled for what it was, and that all classes of these technicians were to operate under policies laid down by a committee of the medical society. All of the technicians' individual work must be carried out under the supervision of a physician.

School Board Dismisses Doctors and Appoints Nurses to Practice Medicine Among School Children—The school board of an Illinois community "fired" their school doctors and employed nurses to do their work. They claimed a saving of $900 a year by the change.

The comments upon this incident have shaken a

lot of physicians and other good citizens into complete wakefulness.

Clinics Conducted by Non-Medical People — Recently the medical society of a large Eastern county refused to further co-operate with a powerful, largely non-medical welfare organization who are conducting a chain of clinics and health centers in that city and in yours. The physicians insisted that they should have the say as to the professional work, who should do it, and that the credit be placed where it belonged. As usual, the welfare organization declined to adopt either of the suggestions.

Rotary Clubs Enter Medical Field—Recently, the Rotary Clubs of Illinois planned to conduct crippled children's clinics throughout the state. The council of the State Medical Association passed a resolution to the effect that the Rotary Club should not enter the practice of medicine, and that the physicians, many of whom were Rotarians, can more efficiently render the same service, the exact wording being as follows: "That the Illinois Medical Society, through its council, condemn and advise against such arrangements, and recommend that these crippled children's clinics supported by Rotary be conducted by the local medical and surgical men in the various counties where same are to be conducted."

The Legal Relation Between Physician and Patient —The relation between physician and patient is a personal one, says Medical Economics, February, 1924. It will be remembered that the able Thomas Linacre, who attended Henry VIII, King of England, made it a rule of the College of Physicians, which he founded, that no member of that body could practice in partnership or be engaged in selling drugs. This principle is more or less recognized by custom and the common law, and in some commonwealths of the United States, as in New York, the physician is expressly forbidden to hide his identity under a charter. In medicine, the corporation is permitted to have neither soul nor body. The doctor personally is responsible to his patient.

For the Family Physician—It is interesting and important and significant that a number of good medical schools and hospitals are opening up special courses for general practitioners of medicine. In the better schools these courses are separated into units of two or four weeks each, and the physician may take as many units as he desires.

The instruction is all directed toward developing a mind capable of collecting all the varieties of evidence of illness, weighing it accurately, and giving judgment in the form of diagnosis. Methods of improved craftsmanship in treatment are accentuated and the general physician's duties as the first and still most reliable and dependable health officer are considered most important of all. The teaching is all done by men in active practice.

What an opportunity is available along these lines for our three Class A medical schools, as well as some of our excellent hospitals.

Ousting of Chiropractic Board Sustained — The findings of the lower court which held that the appointment of Ray S. La Barre, Alden Peterson, James P. Compton, Joseph G. Edgerton, and W. A. Messick as a chiropractic examining board was illegal, has been sustained by the Supreme Court. These men had not legally practiced chiropractic in California for three years prior to appointment, as provided in their initiative law.

It does not appear certain that it will be possible to appoint a legal board. While there are members of chiropractors who hold licenses as drugless practitioners, it is stated that none has been legally licensed as chiropractors.

The Sickness and Hospital Problem of New York —Last year the hospitals and clinics of New York City served well over 3,000,000 people, exclusive of the well to do. It took 12,000 doctors and nurses to render the service, and over 90 per cent of the doctors' services were without pay. The fifty-eight hospitals from which, and in which most of this service is rendered, are assisted by the United Hospital Fund. The average daily applications for admission are about 8500.

Insurance Companies Getting Particular About the Education of Their Doctors — The only surprising feature of the new move among some insurance companies to check up on the education of their doctors is why they have delayed this action so long.

Every other feature of life, sickness and health insurance is relatively of minor importance when compared with the findings of the medical examiners. For many years insurance companies were unable to get enough of the best physicians to do their work for the fees they were willing to pay. The situation is not by any means what it should be today, and it will not be satisfactory until adequate education and experience become the basis of selecting and appointing physicians to insurance positions. The companies might and probably would be compelled to pay their doctors larger fees, but we suspect that the financial balance-sheet would reflect a saving for the company. In any event, it is encouraging to see some of the more reliable companies making a start in the right direction.

Michigan T. B. Association Conducts "Institute"— Short "intensive" educational courses in "institutes" teaching plants are becoming quite popular. Some of these "courses" last most all day, and others last about as long as it takes a chiropractic "college" to educate a "doctor." Many groups of technicians have useful and worthwhile places among the medical agencies, and if the "courses" offered them were calculated to make their work as technicians more effective, they would accomplish much good. Sometimes this is so. Much more often the courses are designed to produce "near doctors" out of good technicians. This is definitely harmful to the cause of better medicine.

The Michigan "courses" last two weeks. Such things as how to distinguish between malnutrition and tuberculosis; public speaking and public health topics; modern health crusades; public health research; why movies and automobiles are menaces to the "pre-tuberculous" and other similar subjects are included.

One physician speaker sounded a note of warning as to possible dangers on the road we are traveling in making everyone a "doctor." He even said that if public health work were to become more effective, it would be necessary to remove it from the emotional and place it upon an "intellectual" plane.

The Costs of Visiting Nursing Service—One great organization that spends large sums of money and carries a large staff of visiting nurses in New York has carefully tabulated the cost per visit of the nursing service, and it amounts to the sum of $1.05. Of this amount, 64 cents is staff salaries, 28 cents is supervision and general overhead, and 13 cents is for clerical help.

Simplifying Diphtheria Prevention—The New York health authorities are eliminating the Schick test in part of the diphtheria prevention work in children under six years of age. All the Schick test does is to determine whether or not the child is susceptible to diphtheria at the moment. Statistics show that such a preponderating percentage of those under six years are susceptible that it is proposed to give them all toxin-antitoxin without the Schick test. The test will be continued for those over six.

Question—How much nursing per patient is considered necessary in good hospital service, and what should it cost?

Answer—The correct answer depends upon many conditions. One is the arrangements provided by the hospital for prompt effective nursing. For example, a nurse in a good well-planned hospital with all the facilities she needs brought together in a central service station can render much more service than the one who must run all over the floor and often up and downstairs to secure the things she needs for any particular service. The time devoted to each patient is decidedly influenced by the physical provisions of privacy for patients. If the patient is in a private room with a noiseless swinging door, the nurse only has to walk in and render her service. If the patient is in a ward, from five to fifteen minutes of the nurse's time is required to secure the privacy necessary for most of her services before she is ready to actually render the service. After the service, more time is required to remove the screens, irrigating-stands and other paraphernalia she has used. This is a partial explanation of why adequate ward nursing is more expensive than private-room nursing.

Other factors that must influence the answer to your question are the classes of patients. Whether the patients are maternity, contagious, surgical, acutely sick, and what not, of course determines to a marked degree the amount of nursing time they should have.

Assuming a complete, well arranged, well managed hospital of 100 or more beds accepting all classes of sick people, the answer to your question still is at best little more than a guess. Several executives have studied and reported upon the problem, and their answers vary from one hour to six hours of required nursing service for each patient for twenty-four hours. The amount and quality of orderly and maid service supplied, the widely varying requirements of doctors; the presence or absence of students of nursing, the manner of nursing "shifts," and many other conditions contribute to the difficulties of answering your question.

Costs of Nursing—Many of the factors mentioned above as applying to the amount of nursing service are, of course, also operative in figuring costs.

Then, too, the compensation and the length of the nurse's work-day are important. In California, nurses have a twelve-hour day with a two-hour rest period. They are paid from $100 to $150 a month, with usually one day a week to themselves and two or more weeks vacation during the year. Private-duty nurses are paid from $5 to $7 for a ten-hour day and maintenance.

If we then say that the average patient requires four hours actual nursing care during twenty-four hours or two hours of the day nurse's and two hours of the night nurse's day, one day and one night nurse could take care of six patients at a total cost of $12 to $15 a day or $2 to $2.50 a day for each patient.

Further comment and suggestions are invited.

The Cults and the College of Surgeons—Under this title the Cincinnati Journal of Medicine, April, 1924, says in part, editorially: "The propaganda in behalf of the American College of Surgeons, so brilliantly begun in the Chicago daily papers in October, is supplemented by an article in Harper's Monthly by William G. Shepherd. Harper's editor says: 'This article has been read, carefully reviewed, and approved by several of the eminent surgeons of the United States, who are familiar, at first hand, with the conditions described therein, and with the objects and achievements of the American College of Surgeons.'

"The eminent surgeons that reviewed this article must be members of the College of Surgeons, because, surely, no one that had not an ax to grind would countenance such absurd statements as it contains. Therefore, we have a right to infer that this article was inspired by members of the College of Surgeons, who wish to use it is a club to drive within their fold those surgeons who have been recalcitrant to their persuasive powers. It is evidently intended to create a feeling of distrust by the laity in any surgeon who doesn't write F. A. C. S. after his name, regardless of the reputation he may have acquired by years of work of high quality, and by years of conduct that reflects credit upon his profession, as well as upon him as a man. Although the writer is not a member of the College of Surgeons, he has always had the most kindly feeling for it and has appreciated the fact that it has undertaken a tremendous task, has labored under difficulties, and has accomplished some good, especially in raising the standard of the hospitals. Therefore it is with genuine sorrow that we see the College of Surgeons adopt the methods they have. It will make enemies for the college.

"The leopard does not change his spots; a liar will not fail to lie because he has promised not to. Every lodge, every profession, every church, has rascals within its fold. Is the College of Surgeons the one exception to this general rule?

"If a surgeon, eligible for membership in the College of Surgeons, be asked why he does not join it, he will usually give one or all of the following reasons: The college in the beginning took in so many men of mediocre ability that he feels it would be no honor to him to have his name listed with theirs. Its law against the division of fees, like the Volstead Act, is not being enforced. The men constituting the 'inner circle' or the medico-political machine that runs the college are always 'browsing along the brink of impropriety' as regards advertising themselves. This should lead the College of Surgeons to assume an attitude of becoming modesty. Truly great men are always modest. Truly great institutions require no 'muckraking' correspondents to describe the depravity of the rest of the world, to furnish a dark background, that their virtues may be seen.

"'There will be other surgeons round the corner—in this new day of surgery—who will not stand by the old fogy code of not taking another man's cases who will help you' (Harper's, page 314). So that is the ethics promulgated by the College of Surgeons, is it? The eminent surgeons that read this article before publication approved this statement. No harm for a member of the College of Surgeons to steal from one who is not! Our author tells us the college received $90,000 from the Carnegie Foundation. Did the foundation impose the ethics of the market place on the recipient? 'To cut the greed glands out of surgery has really been the first step of the College of Surgeons.' Surely the operator got the wrong glands!"

Is This the Ideal County Medical Society?—The Idaho Falls Medical Society has all practicing physicians in its territory enrolled as members; does the medical work for its city and its county; has a meeting on the first Friday evening of each month, with a dinner before the scientific program; pays its secretary; pays the county and state dues for its members; pays the dues for its members as members of the League for the Conservation of Public Health, a statewide organization; provides a $5000 indemnity policy for each member; pays for narcotic licenses for members; pays for the state renewal license for members; pays for the dinners served at its regular meetings; has all members present at every meeting except when emergencies prevent attendance. The money paid by the city of Idaho Falls and the county for medical service is paid to the society.—American Medical Association Bulletin, March, 1924.

Medical Ideals to be Attained—In discussing this subject (West Virginia Medical Journal) Oscar B. Biern says in part: "The ideal of fraternalism must be kept alive. Jealousy, criticism and intolerance lamentably weaken medical influence. Much can be done to perpetuate the tradition of a brotherhood by earnest attempts to create a scientific unity. The gospel must be preached especially to those backward members of the profession who rarely attend county, city, state, or national medical meetings. Fraternalism with workers whose daily life is occupied not with the care of the sick, but with the scientific study of

conditions underlying such care, is quite as important. The benefits to be derived are equally reciprocal."

Physicians and Dentists of Hollywood to Have Million Dollar Office Building—Incorporation papers have been issued to "Medical Center Inc." of Hollywood. It is the purpose of the promoters to lease space only to doctors and dentists.

We would like to caution members of the California Medical Association to be sure that "doctor" and "dentist" is defined in a satisfactory manner in the articles of incorporation. And furthermore, that the authority to pass upon applications for lease be vested in safe hands. The history of alleged doctors' office building promotions justify these precautions.

"Health Surveying as a Favorite Indoor Sport"—There are more alleged surveys in California than there are in any other state and more than there are in any other country of the world. In fact, it seems to be one of our favorite occupations and is much vaunted as a stimulating research problem. It is customary for us to have from four to forty health surveys, local and general, going on all the time. They are sometimes by local surveyors, but most often by imported "one-night standers." Their survey reports are all voluminously filled with platitudes and propaganda. They are sometimes published, but more often they are "confidential" documents. No one pays much attention to any of them any more. They could not if they would, because a start is hardly made on any program until someone thinks of another survey and another surveyor, and we are off on a new line.

Milling around is at its height and chewing the cud of reflection is unpopular. Motion, motion everywhere without a place to go. Surveys cost money and imported surveyors demand good fees. There are instances in California where public-spirited influences asked for and received "expert" "surveyors'" opinions for quite reasonable fees, while the surveyor received Teapot Dome fees for service to those who always know what they want and how to get it.

Santa Barbara Doctors' Office Building—A new exclusively doctors' office building, to cost $90,000, is being promoted in Santa Barbara. It is proposed to locate the building away from the business section, and doctors are expected to be stockholders.

The movement to locate doctors' office buildings away from the congested downtown sections of cities appears to be growing. There is much to be said in favor of the movement and there are a few legitimate objections. It is to be hoped that doctors, planning to invest in the Santa Barbara or any other doctors' office building, will see that adequate provision is made for a satisfactory definition of "doctor," as well as satisfactory assurance that the definition will be lived up to. Some good doctors have lost money in promotion schemes for "alleged" doctors' buildings.

Apartment-Hospitals—There is a sound thought behind the new movement for apartment-hospitals now being experimented with. Certain disqualifying chronic diseases, deformities and certain classes of obstetrical patients among families who cannot bear the legitimate costs of modern medicine may utilize the apartment-hospital.

In these hospitals certain space is set aside for required technical service. All other space is given over to regular, medium and smaller-sized apartments. When prolonged disqualifying illness comes to a family operating close to the base line between solvency and insolvency, the whole family moves into a hospital apartment. They continue to do what they can for themselves, the wage-earners continue to go to their work, while the patient has just such additional care as is necessary over and above what the family can give. Members of the family become apprentices, as it were, in nursing and otherwise serving the sick. Medical, nursing and other technical services are available within limits at the apartment-hospital. For more highly skilled surgical and other services the patient may be placed temporarily in more fully equipped hospitals.

The Victoria Apartment-Hospital at 315 East 158th street, New York, was the first of these apartment-hospitals.

Board of Osteopathic Examiners Makes Interesting Ruling—In a letter to C. B. Pinkham, secretary of the Board of Medical Examiners, Lester R. Daniels, secretary of the Board of Osteopathic Examiners, says:

"Replying to your inquiries of March 8 regarding the cases of Frank E. Corwin and D. F. Hyder, will state that the board has very definitely ruled that an individual licensed on osteopathic credentials is not entitled to the suffix M. D., in spite of the fact that he may have legitimate medical credentials evidencing graduation from a college conferring the M. D. degree. Frank C. Corwin, however, has an osteopathic license only, and therefore is not entitled to hold himself out as a physician and surgeon.

"As regards individuals who illegally hold themselves out to practice osteopathy, the board is taking steps to prevent all such persons from thus misrepresenting themselves before the public. Tasker was empowered at the last board meeting to employ an inspector for this purpose, and it is to be hoped that prosecution of individuals of this character may be successfully carried out."

Reflections on "Medical Economics"—Twenty topics are mentioned by Edward H. Ochsner of Chicago in a recent article on "The Medical Economic Situation," says the Ohio State Journal of Medicine.

These are: 1, Federal aid laws; 2, Single standard for the practice of medicine: (a) Cults and cultists; (b) Quacks and quackery; 3, Medical inspection of school children; 4, Medical education: (a) Premedical; (b) Medical; (c) Interne; (d) Post-graduate; 5, Nurses' training; 6, Hospital and hospital management; 7, Group practice; 8, Medical charities; 9, State wards: (a) Penal; (b) Delinquent; (c) Insane; (d) Feeble-minded; (e) Blind; (f) Deaf; (g) Miscellaneous; 10, Venereal disease control; 11, Public health and sanitation; 12, Personal hygiene; 13, Periodic medical examination for all citizens; 14, The doctor's investments; 15, The business side of the practice of medicine; 16, The claims of the chemical foundation; 17, Narcotic drug control; 18, Lay control of medical affairs; 19, Compulsory health insurance, old age pensions, etc.; 20, State medicine.

It would be easy to increase this list by some eight or ten more important economic problems facing the medical profession and calling loudly for remedies.

Is This the Way it Should be Done?—The Bureau of Child Hygiene of the California State Board of Health and the State Department of Physical Education are conducting a month of physical examinations of children who are about to enter school. These examinations will be conducted by qualified physicians, dentists and nurses, and will be "free of cost" regardless of the patients' ability to pay.

They mean, of course, that the service will be "free of cost" to the patient. The costs will be paid for out of taxes and by the practicing physicians who give of their time and also help pay the taxes. This type of the practice of medicine is important for children and for all other persons, provided the examinations are well done by educated physicians; provided further, that accurate written records of all findings are made; provided further, that these records are placed in the hands of the patient or family for the information of the family physician; and provided further, that the patient and the family secure the remedial service they need from competent sources. Otherwise, such examinations are an expensive luxury which produces motion but not progress.

Chiropractors Protest Against Nurses Practicing Medicine—The California Chiropractic Society have

protested to San Francisco County Supervisors against school nurses practicing medicine by attempting diagnosis of disease and ordering surgical operations.

There is a grim sort of humor in a situation where one body of, for the most part, unlicensed practitioners of medicine protest against the competition of another unlicensed group. Neither of these groups is adequately educated or experienced to assume the serious responsibilities of life and death that both are being widely charged with assuming.

Commercial Exhibits at the California Medical Association Meeting in Los Angeles — The following advertisers carrying space in California and Western Medicine will have commercial exhibits at the annual session in Los Angeles:

The Vitalait Laboratory, Pasadena, Calif.
The Calso Company, 524 Gough street, San Francisco.
Horlick's Malted Milk Co., Racine, Wis.
The Medical Protective Company, Fort Wayne, Ind.
Hanovia Chemical and Manufacturing Company.
Scherer, Hospital Supplies, 728 South Flower street, Los Angeles.
Abbott Drug Co., Chicago, Ill.
Bush Electric Corporation, 334 Sutter street, San Francisco.
Ralph Sweet, Medical Illustrating, 235 Grattan street, San Francisco.
Parke-Davis, Detroit, Mich.

A new Alleged Spokesman for the Regents of the University of California and the California Board of Education—The editorial in California and Western Medicine of February, dealing with the establishment of a course in "optometry" by the physics department of the university has called forth many compliments, and it also drew fire from expected and anticipated sources. The only feature of the comment that was not anticipated was that one class of optometrists presumed to speak for the authorities of the university as well as for the board of education. This they do in an abstract of an editorial published in the April issue of "The Reflex," when they say:

> "The regents of the University of California and the State Board of Education have become aware of the constant and continued success that the optometrists are having in giving to the public that for which they have been especially trained—efficient ocular service. They have come at last to the realization that the really efficient method to examine the eyes is **without the use of drugs,** and that only the optometrist is qualified by **education and special examination** to give that kind of an examination to the public."

The reaction of the university and the board of education to the statement of their presumably self-appointed spokesman will be awaited with some concern by all persons interested in the question of adequate education for all persons who treat the sick, including the correction of deformities of the eyes, toes, heart, or any other part of the body.

Old Fractures of the Ankle—It is the belief of Emil S. Geist, Minneapolis (Journal A. M. A., March 22, 1924), that it is absolutely necessary to make liberal use of the roentgen ray in the treatment of ankle fractures, both before and after so-called setting. It is necessary to recognize a type of backward fracture dislocation of the ankle. When fresh, it is easy to treat; when old, it is a bete noire. Correct alinement of the bones comprising the ankle-joint is necessary in order to prevent later disability. Thorough and efficient after-treatment by massage, hot-pack applications, and active and passive motion are necessary. In these cases the Achilles tendon will shorten if it is not watched. In all ankle fractures, no matter of what type, the foot must be held at right angles with the leg.

Medical School News

University of California (reported by L. S. Schmitt, acting dean)—Reserve Hospital Units—The advisory board of the Medical School has recommended to the faculty the organization of a general reserve hospital unit and a surgical reserve hospital unit. Upon approval by the faculty, the commanding officers for each unit will be designated and the surgeon-general of the army requested to give numbers to each unit.

At the last meeting of the Association of Ameriman Medical Colleges, a motion was adopted to appoint a commission to include representatives of the Council on Medical Education and Hospitals of the American Medical Association and the Committee on Education and Pedagogics of the Association of American Medical Colleges to carry out a thorough investigation as to what should be the essential requirements for the degree of Doctor of Medicine.

At the same meeting a plan to establish examinations for admission to medical schools, similar to the plan now in vogue for admission to American universities and colleges, was discussed.

Ray Lyman Wilbur, president of Stanford University, was elected president of the Association of American Medical Colleges for the year 1924-25. L. S. Schmitt, acting dean of the University of California Medical School, was appointed a member of the Committee on Education and Pedagogics of the Association of American Medical Colleges.

Stanford University School of Medicine (reported by William Ophuls, dean)—The 1924 Lane Lectures —The following is the final program of the Lane medical lectures to be delivered by Professor Ludwig Aschoff, Professor of Pathology of the University of Freiburg, Germany, at Lane Hall, Stanford University Medical School, corner of Sacramento and Webster streets, San Francisco, for the year 1924, as reported by Dean William Ophuls:

May 26, 1924, 8:15 p. m.—Place of Origin of the Biliary Pigment.
May 27, 1924, 8:15 p. m.—Atherosclerosis.
May 28, 1924, 8:15 p. m.—Ovulation and Menstruation.
May 29, 1924, 8:15 p. m.—The Morphology and Function of the Adrenal Cortex.
May 30, 1924, 8:15 p. m.—Fatty Degeneration.

The medical profession and students of medicine are cordially invited to attend these lectures.

The subjects for this year's lectures are all particularly timely, and every physician ought to make an earnest effort to hear the subjects discussed by a truly great pathologist.

Pneumonia Simulating Appendicitis in Children—The acute onset of pneumonia with few or no clinical symptoms may simulate acute appendicitis, especially distention in children. Abdominal symptoms of pain, tenderness and rigidity may be present as in the cases cited by Paul A. White, Davenport, Iowa (Journal A. M. A., March 1, 1924). Difficulties in diagnosis are multiplied because of the tender age, lack of intelligence, or fear on the part of the patients. A severe chill at the onset, temperature over 102, and a leukocyte count near or over 20,000, should engender extreme caution and intensify efforts at differentiation. A careful urine examination should always be made.

The "mother instinct," helpful as it is, is not sufficient to cope with the responsibility which comes with motherhood. Children enter the world—little plastic creatures with so much natural force and for the rest blank, and life writes its own story on those blank pages.—Medical Woman's Journal, March 15, 1924.

BOOK REVIEWS

Local Anaesthesia Methods and Results in Abdominal Surgery. By Hans Finsterer. Illustrated. New York: Rebman Company. 1923.

Finsterer's book is more than a mere exposition of methods of local anesthesia. It might perhaps better be entitled "Abdominal surgery under local anesthesia."

The first hundred pages have to do with local and regional anesthesia in the abdomen; the remaining two hundred fifty treat of Finsterer's methods of gastric, intestinal and gall-bladder surgery.

The book contains much of value, although there are but few American surgeons who will entirely agree with the author's practice.

No doubt that splanchnic anesthesia greatly decreases the risk of abdominal operations in weak and unresistant patients when the choice lies between regional anesthesia and ether or chloroform. Gas anesthesia, however, which has come into such wide use in this country, and which almost entirely obviates the dangers of ether or chloroform, is not considered. One cannot help but feel that if gas were as much used in European clinics as it is here complicated injection methods would scarcely have reached the refinements and the development to which Finsterer has largely contributed. Finsterer's methods used together with gas give an almost ideal abdominal anesthesia—an anesthetic both of the pain-sense and of the psychic insult accompanying a major abdominal operation.

The book will be of especial value to beginners in local anesthesia, for it is quite true that the only way to perfect oneself in the methods of infiltration anesthesia is to use them alone without the supplementary aid of a general anesthetic. After one has mastered the technic, one may supplement the effects of novocain with gas; if the beginner immediately has recourse to gas or ether, he will never learn the imperfections of his infiltration anesthesia.

The book will be equally valuable to surgeons working in small hospitals without special anesthetists skilled in the use of gas. It is in the small hospital that pure infiltration methods will find their sphere of greatest usefulness.

The controversial and rancorous tone of the work is regrettable. This sentence from the opening chapter is a sad commentary on Viennese surgery:

"With the great number of surgeons in Vienna at the present time, it is certainly not necessary to state that the commercial side of such an important question is very much of a deciding factor, because we know that when a surgeon operates on all, even the minor cases, it is not in the interest of the patient, but principally in the financial interest of the operator himself."'

The translation is lame, involved, full of Teutonicisms and Teutonic turns of phrase. The book is full of typographical errors. The errors should be corrected and the translation might well be revised in future editions. In spite of these faults, the work is of much interest and its methods of great value. L. E.

Diseases of the Skin. By Richard L. Sutton. 5th ed 1214 pages. Illustrated. St. Louis: C. V. Mosby Company. 1923. Price, $10.

Richard L. Sutton's fifth edition of Diseases of the Skin is a praiseworthy text-book, with many features which make of it one of the best. Perhaps best of all is its completeness. The many excellent illustrations are a second notable feature.

The book is well printed and pleasing to read, and for reference it is not too large. It proves its worth in diagnosis. It is equally as helpful from a therapeutic standpoint.

Sutton's book, I feel confident, will be found to fulfill any praise that may be given it. G. D. C.

BOOKS RECEIVED

Applied Pathology in Diseases of the Nose, Throat, and Ear. By Joseph C. Beck, M. D., Associate Professor of Laryngology, Rhinology and Otology, University of Illinois College of Medicine. With 268 original illustrations, including four color plates. St. Louis: C. V. Mosby Co., 1923.

The Beaumont Foundation Lectures. Subject: The Antidiabetic Functions of the Pancreas and the Successful Isolation of the Antidiabetic Hormone—Insulin. By J. J. R. MacLeod, Professor of Physiology, University of Toronto, and F. G. Banting, Research Professor, University of Toronto. Series No. 2. Auspices of the Wayne County Medical Society, Detroit, Michigan, 1923. Published by the C. V. Mosby Co., St. Louis.

Methods in Medicine—The Manual of the Medical Service of George Dock, M. D., formerly Professor of Medicine, Washington University School of Medicine. By George R. Herrmann, M. D., Instructor in Medicine, University of Michigan; formerly Assistant in Medicine, Washington University. Illustrated. St. Louis: The C. V. Mosby Co., 1924.

International Clinics, a Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles. By leading members of the medical profession throughout the world. Edited by Henry W. Cattell, M. D., Philadelphia, with the collaboration of fifteen physicians. Volume I, Thirty-fourth Series, 1924. Philadelphia and London: J. B. Lippincott Co., 1924.

Diet for Children (and Adults) and the Kalorie Kids. By Lulu Hunt Peters, M. D., formerly Instructor in Infant Feeding, Los Angeles County and Clara Barton Hospitals, Los Angeles Medical Department, University of California, Los Angeles; Pediatrician Los Angeles County Hospital. New York: Dodd, Mead & Co., 1924.

National Health Series. Edited by the National Health Council, written by the leading health authorities of the country, and published by the Funk & Wagnalls Co. Price per volume, 30 cents. Complete set of twenty volumes (ready about May 1, 1924), $6. The first five volumes have been received, and are as follows:

Cancer—Nature, Diagnosis and Cure. By Francis Carter Wood, M. D., Director Institute for Cancer Research, Columbia University.

Man and the Microbe—How Communicable Diseases are Controlled. By C.-E. A. Winslow, Dr. P. H., Professor of Public Health, Yale School of Medicine.

Community Health—How to Obtain and Preserve It. By D. B. Armstrong, M. D., Sc. D., Executive Officer of the National Health Council.

The Baby's Health. By Richard A. Bolt, M. D., Gr. P. H., Director Medical Service, American Child Health Association.

Personal Hygiene—The Rules for Right Living. By Allan J. McLaughlin, M. D., Surgeon United States Public Health Service.

Rush Alumni Society Banquet (reported by W. H. Olds, secretary)—The Rush Alumni Society of Southern California held a banquet March 20, in honor of Arthur D. Bevan, Wilber Post, and Truman Brophy. The dinner was held at the Athletic Club. There were eighty members of the society present. Our old professors gave us some very good addresses regarding conditions as they now exist at Rush, and the plans for the future. We hope that more of the faculty will visit us before long.

NEW MEMBERS OF C. M. A. SINCE JANUARY 1, 1924

Alameda County—Marie A. Heinatz, R. L. Rupert, E. V. Sheafe, John W. Sherrick, Sydney Kinnear Smith.

Butte County—Mary W. Harris, William S. Lavy, Sydney V. West.

Contra Costa County—J. Emmet Clark.

Fresno County—Stephen M. Long.

Humboldt County—Mathew J. Beistel, William W. Styles.

Los Angeles County—John Waite Avery, Donald T. Babcock, Robert V. Baker, Frank S. Barnard, Harold D. Barnard, Joseph J. Bellin, Milton G. E. Bennett, George L. Blanchard, Oliver Bourbon, Gilbert S. Bovard, Robert J. Brown, William Thomas Cain, Kenneth A. Crismon, C. D. Dickey, George A. Fielding, Harry S. Fist, H. J. Friesen, C. E. Galloway, John P. Gilmer, R. Y. Glidden, Joseph Goldstein, L. K. Gundrum, Joseph M. Harris, L. L. Henniger, Ray A. Irvine, Z. Gorton Jones, Madison J. Keeney, Robert A. Kilduffe, Lawrence H. Kohlhase, Alonzo E. Mack, Rudolph Marx, Valentine M. Miller, F. Simon Newcomb, J. M. Pearson, William G. Raber, Edward R. Remmen, Francis C. Renfrew, Clinton Roath, C. M. Rose, Carl F. Rusche, Harold A. Sanders, H. Guy Schooling, Gladys P. Shahovitch, O. F. Shipman, John W. Shuman, Leonard O. Sloane, Kenneth E. Smiley, Munford Smith, Edson H. Steele, George W. Stilson, Charles F. Swanson, Matsuta Takahashi, Henry M. Thompson, J. J. Tobinsky, C. E. Townsend, Ralph Van Vranken, Guiseppe Vercellini, Dean Waddell, Wade H. Walker, Herbert William Wall, Earl H. Welcome, Earl W. Wells, M. F. Weymann, W. G. Wheatley, Joseph E. Whitlow, J. B. Williams, Emil Windmueller, Harold R. Witherbee, Emanuel B. Woolfan.

Marin County—C. W. Clark, Charles B. Marston.

Merced County—Claude H. Church, Burt L. Doane.

Napa County—Joseph J. France, Robert A. Northrup.

Placer County—Orren L. Barton, Hugh G. Chisholm, Fred Harrison, Cyril E. Lewis, Richard O. Schofield.

Riverside County—H. A. Erickson, Erwin P. Miller.

Sacramento County—Elvin O. Brown, George H. Sanderson.

San Bernardino County—Lenore D. Campbell, Allen L. Haenszel, Velear L. Minehart, Hubert J. Smith, Philip J. Tunnell.

San Diego County—Henry C. Babcock, Bernice M. Hazen, Francis C. Pache, Arthur J. Wilkinson.

San Francisco County—William Lee Bender, Peter de Obarrio, Randolph G. Flood, John M. Graves, James H. Hall, Samuel Hanson, Willard E. Kay, Adolph A. Kutzmann, Eileen M. Leonard, John J. Loutzenheiser, J. Minton Meherin, Louis J. Oviedo, Victor Randolph, John J. Sampson, William E. Shea, Daniel W. Sooy, Ralph Soto-Hall, Gwendolyn Stewart, Wilbur F. Swett, James Thom, Harold F. Unsinger, Mast Wolfsohn.

San Joaquin County—A. Edward Dart, F. G. Maggs, J. J. Sippy.

San Mateo County—Theodore K. Miller, Clarence V. Thompson.

Santa Barbara County—William Hammond Eaton, William R. Varick, Irving Wills.

Santa Clara County—Arvid Bursell, George E. Hall, Merlin T. R. Maynard, A. T. Sunzeri.

Santa Cruz County—P. K. Watters.

Siskiyou County—Dayton H. Hornor.

Sonoma County—Roscoe E. Hamlin, Kristine B. Johnstone, George W. Mallory, Clara Pratt Sparks.

Stanislaus County—Ernest G. Allen, Albert E. Julien, Eric A. Julien, Hiram Presler, Hugh E. Smith.

Tulare County—Hugh W. Bell, William P. Bowen, W. F. Edmonds, James G. McClure, J. Tracy Melvin, Downing D. Nice, W. W. Tourtillot.

Tuolumne County—Jens P. Jensen, Percy K. Telford.

Ventura County—Julio Bianchi, Benjamin L. Saeger, Carl E. Schultze.

Yolo County—Thomas E. Cooper, James E. Harbinson.

Yuba-Sutter County—F. B. Lawton.

TRANSFERRED

F. Lisle Horne, Placer County to Contra Costa County.

Charles L. Ianne, Santa Clara County to Contra Costa County.

W. A. Rowell, Shasta County to Contra Costa County.

Mabel A. Geddes, Alameda County to Humboldt County.

R. Manning Clarke, Santa Barbara County to Los Angeles County.

Burton E. Paul, San Francisco County to Los Angeles County.

Irwin C. Sutton, Orange County to Los Angeles County.

Frank W. Yocom, San Francisco County to Merced County.

Henry W. Vollmer, San Bernardino County to Riverside County.

Archibald A. Atkinson, Siskiyou County to Sacramento County.

Walter F. Pritchard, Napa County to San Bernardino County.

Gordon F. Helsley, Santa Barbara County to San Francisco County.

Sidney J. Shipman, Placer County to San Francisco County.

Ernest C. Griner, Mendocino County to San Joaquin County.

M. F. Frandy, Kern County to San Bernardino County.

Henry G. Zanger, San Francisco County to Santa Clara County.

Frederick W. Didier, Shasta County to Stanislaus County.

Homer H. Beck, Siskiyou County to Tehama County.

Too Much Specialization—The earnestness of purpose among advocates of special lines of health activities is deserving of great commendation, but the policy of conducting campaigns each dealing with some particular problem regardless of its relation to other similar problems is productive of confusion. National and State legislative bodies are asked for appropriations in behalf of special programs of work, and it is not unusual to find in the communities themselves several persons, each representing a different health activity, vying with one another for local appropriations to carry on their work.

The usual result of this state of affairs is that the advocates with the most active support, or with the most attractive and convincing method of presentation, win the laurels. Few, if any, are given what they ask; and often the appropriations allowed, while making a fair-sized total, are so divided and apportioned that the results are far less than might be obtained from the expenditure of the same amount under a systematic plan of work.

The time is at hand when legislative bodies and the people themselves should thoroughly understand that no special line of health work can be complete in itself; that the whole problem of health and disease is so inter-related and complex that it is impossible to make satisfactory progress along one line unless it is conducted in a definite and proper relation with all others. . . .

An important part in the protection of the health of mothers and infants lies in the control of communicable diseases, especially venereal diseases, the provision of safe water and milk supplies, adequate methods of sewage disposal, and a generally healthful environment.—W. F. Draper, Journal A. M. A.

Obituary

WILLIAM MILLER STOVER
1867-1924

The medical profession of California suffered a severe loss in the death of William Miller Stover, which occurred on April 4, 1924, at his home in San Luis Obispo.

Doctor Stover was born in New Hope, Virginia, on the 10th of February, 1867. He received his preliminary education at the Augusta Military Academy of Fort Defiance, Virginia, and his degree of Doctor of Medicine was bestowed on him by the University of California in 1896.

In 1898 he was married to Miss Anne E. Mitchell in the city of Watsonville, California. Mrs. Anne E. Stover and two children, Mrs. Virginia Stover Williams and Beverly R. Stover, are left to mourn his loss.

After graduation Stover began the practice of his profession in Gonzales, Soledad, and Paraiso Springs, all in Monterey County, California. In the fall of 1900 he moved to San Luis Obispo, where he continued to practice until his untimely death. He was a Fellow of the American Medical Association and a member of the Council of the California Medical Association.

From the very beginning he showed an indomitable energy and love for his work that presaged the success that was his later in life. His work, medical and surgical, was of the very best and was his pride and joy.

The fact that he was twice elected mayor, twice a member of the school board, once president of the Chamber of Commerce, and was always prominent in civic activities in his home city, was testimony that he was not just an ordinary doctor in his community.

Doctor Stover had been ill for many months and had been advised that he must quit work and take care of himself. But to loaf was foreign to his nature. He did not quit. To serve had become a habit of his life and it may well be said that he forgot himself in service to others.

What greater epitaph could man ask?

Professor H. Finkelstein, Guest of the C. M. A.—H. Finkelstein, Professor of Children's Diseases in the University of Berlin and Director of the Kinderkrankhaus, is to be a guest of the C. M. A. during the Los Angeles session. He is scheduled to speak to the Section on Pediatrics on May 15, and interested physicians are invited to be present. Finkelstein is widely known for his work on diseases of the digestive system in children and especially for his classification of the summer diarrheas.

EXAMINATION DATES OF THE NATIONAL BOARD OF MEDICAL EXAMINERS

Part I—June 19, 20, 21, 1924.
Part II—June 20, 21, 1924.
All applications for these examinations must be made on or before May 15, 1924.
Further information may be obtained from the secretary, J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

The Botany of Southwest Texas, With Reference to Hay-fever and Asthma—The article by I. S. Kahn, San Antonio, Texas (Journal A. M. A., March 15, 1924), is the result of a year's study of glycerin pollen plates exposed twenty-four hours, later stained with compound solution of iodin, and examined twice each week. The plates were exposed in both the residence and business districts of San Antonio; in addition, a number of plates have been studied from Houston, Dallas, Corpus Christi and smaller cities nearer San Antonio. The actual field botany work and identification of specimens were done in connection with Miss Ellen Schulz, professor of botany in the San Antonio high schools, and Mr. Wallace Butler of the local United States Agricultural Experimental Station.

DEATHS

Burchard, Edwy Adelbert. Died at Lodi, March 31, 1924, age 75. Graduate of the University of Wooster Medical Department, Cleveland, Ohio, 1877. Licensed in California, 1881. He was a member of the San Joaquin County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Butler, Fletcher Asbury. Died at San Diego, March 21, 1924, age 70. Graduate of Louisville Medical College, 1879, and of the Tulane University of Louisiana School of Medicine, New Orleans, 1881. Licensed in California, 1881. He was a member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Hennessey, Edwin Zac. Died at Napa, April 3, 1924, age 60. Graduate of the Medical College of Indiana, Indianapolis, 1884. Licensed in California in 1886. He was a member of the Napa County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

O'Reilly, Thomas William. Died at Los Angeles, March 19, 1924, age 55. Graduate of Jefferson Medical College of Philadelphia, 1892. Licensed in California, 1906. He was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Smith, Samuel F. Died at Bakersfield, April 4, 1924, age 59. Graduate of the University of Southern California College of Medicine, Los Angeles, 1895. He was a member of Kern County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Squire, Herbert A. Died at Los Angeles, March 16, 1924, age 64. Graduate of the New York University Medical College, 1886. Licensed in California, 1901. He was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Stover, William Miller. Died at San Luis Obispo, April 4, 1924, age 57. Graduate of the University of California Medical School, San Francisco, 1896. Licensed in California, 1897. He was a member of the San Luis Obispo County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

"Vita-Pep" (Propaganda for Reform)—Vita-Pep is nominally put on the market by the Vitamine Products Co. of New York City, but actually seems to be put out by the Vitamin Food Co., Inc., of Westfield, Mass. The president of the Vitamin Food Co. is one Eugene Christian, who calls himself a food specialist. He has offered a "Course in Scientific Eating," in which he showed his monumental ignorance of the subject he wanted to teach. Later, he was interested in an obesity treatment, the "Vaco Reducing Cup." Then he tried to sell oil stock to those on the sucker list. Then came the Vitamin Food Co., Inc., with Christian as president, and those on the sucker list were asked to buy stock in this company. In the earlier advertising, the product mainly stressed was "Vegex," which, according to the advertising matter, was a name that the Vitamin Food Co., Inc., had given to a British preparation sold across the water as "Marmite." Now comes the crowning achievement of the Vitamin Food Co., Inc.—Vita-Pep. The circular for this contained the statement in large letters that the preparation contains alcohol 16 per cent. According to the label, Vita-Pep, in addition to containing wine with an alcohol strength of 16 per cent, also contains pepsin, rennin and a concentrate of vitamin "B." The advertising circular states that Vita-Pep is a "Zestful New Health Tonic" which "Restores Youthful Vitality." According to the advertising, "Vita-Pep is pleasant to the taste and delightful in its effect—takes away that tired, rundown feeling and makes one feel vigorous, healthy, and strong." What is the United States Revenue Department going to do about it?—Journal A. M. A., March 15, 1924, p. 907.

Said Anatole France—"Robespierre was an optimist who believed in virtue. If you want to make men perfect, you end, like Robespierre, by desiring to guillotine them. Marat believed in justice and demanded 200,000 heads."

Tryparsamid—A study made by Wade H. Brown and Louise Pearce, New York (Journal A. M. A., January 5, 1924), of the action of tryparsamid on the animal organism and on experimental infections produced by trypanosomes and spirochetes showed that, although the drug exhibits no unusual parasiticidal effect, it possesses properties of action which peculiarly adapt it to the treatment of trypanosomiasis and to certain classes of syphilitic infections, especially those that call for the use of drugs with high penetrability as well as those that might be influenced favorably by reinforcement of processes of natural resistance. From the practical point of view, the most important features of the action of tryparsamid are: comparative freedom from untoward effects, a moderate degree of trypanocidal action and slight but definite spirocheticidal action, an unusually high penetrability which enables it to develop a high actual as compared with its potential parasiticidal action, and a remarkable power of reinforcing processes of natural resistance and of promoting recuperation. Therefore, the use of the drug should be directed with a view to utilizing these resources and not from the standpoint of a powerful parasiticidal agent.

The Clean Inunction Treatment of Syphilis with Mercury—A further series of cases is reported by H. N. Cole, J. R. Hutton and Torald Sollmann (Journal A. M. A., January 19, 1924), which confirms their contention that mercurial inunctions are fully as efficient when the excess of ointment is removed with benzin, after thirty minutes of rubbing, as when the ointment is left on the skin. By either method, about half of the patients require from eleven to nineteen rubs before salivation occurs; about a fourth require a smaller, and a fourth a larger number. Pathologic conditions of the skin are important factors in the absorption of the inunctions.

What is S. M. A.?

S. M. A. is an adaptation to breast milk which resembles breast milk both physically and chemically.

S. M. A. in addition to giving excellent nutritional results in most cases, also prevents nutritional disturbances such as rickets and spasmophilia.

S. M. A. requires no modification or change for normal infants. As the infant grows older the quantity is merely increased.

S. M. A. requires only the addition of boiled water to prepare.

(Orange juice, of course, should be given the infant fed on S. M. A., just as it is the present practice to give it to breast-fed infants.)

Why was S. M. A. developed?

Because there is a real need for an adaptation to breast milk which will give satisfactory nutritional results in the great majority of cases, which includes the preventive factors, and which is, at the same time, so simple to prepare that the physician can rely on the mother to follow his directions accurately.

How is it possible to feed S. M. A. to infants from birth to twelve months of age without modification or change?

The answer to this question sounds the keynote of the success which thousands of physicians are having with S. M. A. It is not necessary to modify S. M. A., for *the same reason that it is not necessary to modify breast milk:*— for S. M. A. resembles breast milk not only in its protein, carbohydrate and salt content, but also *in the character of the fat.* Since the very young infant can tolerate the fat, as well as the other essential constituents in S. M. A., it is possible to give this food in *the same strength,* to normal infants *from birth to twelve months of age.*

As the infant grows older, therefore, it is only necessary to increase the *amount* of S. M. A.

Samples and literature to physicians on request.

S. M. A. is to be used only under the direction of a physician. For sale by druggists.

Formula by permission of The Babies' Dispensary and Hospital of Cleveland.

THE LABORATORY PRODUCTS CO.
Cleveland, Ohio

CALIFORNIA
AND
WESTERN MEDICINE

OWNED AND PUBLISHED BY THE CALIFORNIA MEDICAL ASSOCIATION

Official Organ of the California, Nevada and Utah Medical Associations

The Declaration of Rights of Children

As Adopted by
The International League of Child Welfare
at Geneva

IN THE declaration of rights of children, called the Declaration of Geneva, men and women of all nations should give to children the best gifts in their possession, and affirm their rights irrespective of race, nationality and religion.

1. Children should be placed in an environment in which they can develop normally, physically and mentally.

2. A child that is hungry should be fed; a child that is sick should be cared for; the backward child should be encouraged; the child that has gone astray should be reclaimed; the orphan and the deserted child should be given a home and their distress relieved.

3. Children should be the first to receive aid in time of distress.

4. A child must be put in a position to earn his living and should be protected against exploitation.

5. Children should be brought up to believe that their best qualities must be used in the service of their fellows.

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(*Continuing the California State Journal of Medicine*)

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CALIFORNIA AND WESTERN MEDICINE

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VOL. XXII JUNE, 1924 No. 6

ORIGINAL ARTICLES

RESPONSIBILITY FOR STATEMENTS AND CONCLUSIONS IN ORIGINAL ARTICLES

The author of an article appearing in the CALIFORNIA AND WESTERN MEDICINE *is entirely responsible for all statements and conclusions. These may or may not be in harmony with the views of the editorial staff. Furthermore, authors are largely responsible for the language and method of presenting their subjects. All manuscripts will be carefully read, but editorial privileges will be exercised only to a very limited extent. It is believed that the manner of presentation of any subject by any author determines to no small degree the value of his conclusions. Therefore, both the author and the reader, in our opinion, are entitled to have the subject as presented by the author as little disturbed as possible by the editors. However, the right to reduce or reject any article is always reserved.*

THE DOCTOR, AS HE WAS, IS AND SHOULD BE *

By THOMAS CLAY EDWARDS, M. D., Salinas.

To have been chosen president of a scientific body composed of the most unselfish men and women in the world is the crowning honor of my life. I wish to thank you for having conferred that honor upon me.

Our time is so taken up with our professional activities that the majority of us do not sufficiently interest ourselves in some very important medico-civic affairs. We often do not seem to realize that scientific medicine is menaced by the increasing propaganda by certain dangerous cults.

Many of the better non-medically educated men and women seem to appreciate this more than we do. Such influential persons as Professor Eliot of Harvard are so greatly concerned lest scientific medicine be crippled in its activities, that they are organizing for the purpose of informing the people of the danger to the human race if scientific medical investigation is limited or stopped. It, therefore, behooves us to be a little more careful to cultivate our personal relations with the public so that we, too, may do our part in placing the facts before the people.

Some of you have a picture hanging in your office —"The Doctor." Call it to mind. The father is standing in the background and the mother is seated at a table with her head resting on her arms. In the foreground you see the doctor, seated by the bed of his little patient. There is no nurse in white raiment, for this doctor was unaccustomed to the services of a trained nurse. Many, many times he would spend the whole night sitting just as you see him there. His, would be the hand that smoothed the pillow, making it softer for his little patient. His, the hand to administer a sip of cold water to parched lips. His fingers gently feel the pulse; his eyes watch the respiration, and his ears are very alert to catch the measured breath sounds that denote refreshing sleep.

Do you wonder that he was considered a comforter and friend as well as a doctor? It was this solicitude, this sacrificing personal service that made him so loved by his patients. Every time we delegate a service we are cutting a strand of the cord that binds us to our patient and thus damaging the value of our services to him.

Modern medicine, by the use of hospitals, laboratories, nurses, specialists, has delegated so much of the work once done by the old family doctor that the doctor of today is losing much of his patient's love. This is a great loss to medicine, because the family physician is the standard by which the average person measures our profession. Our relations to the community are such that what we do is of more importance than that which the average person does. We have been conceded a position of leadership because of the ideals that have actuated us. If we hope to retain the respect that we now claim, we may not with impunity break this, that or the other law. Our position in society is such that if we do so, we teach disrespect for law, bring reproach on our chosen profession, and trample under foot the ideals of our fathers. We are patterns for the young. The youth of today judges us by what we do, not by what we say. Keeping faith with ideals has been, is and always will be one of the big influences toward human progress. We all know that the idealist looks way beyond his own personal comforts or desires. He sees men and

* President's annual address, Fifty-third Annual Session California Medical Association, Los Angeles, May 15, 1924.

women enjoying pleasures denied him. This has been beautifully expressed by Emma Leutert.

Scorn not the dreamer! He it was who with bent back
Cut smooth the road for you and me,
That we might travel on from generation unto ex-generation,
In ease and luxury and sweet security.
What is this wondrous Present but the dreams, in ages gone,
Of those whose inner visions brought into their outer world
What We Now Gaze Upon?
It was the dreamers dauntless brain
That lifted us from out the sordidness of life;
Emancipated us from drudgery and bade us hope again.
And they, the dreamers of today, fearless and bold,
Who saw a great metropolis rise from her ashes Phoenix-like,
A greater, nobler, grander than the old.
It was in dreams men saw the desert crossed with rails of steel;
Its countless homesteads, bridges, cities rise;
Its wagon caravans give way to steam and wheel.
To break down barriers of creed and race,
The dreamer set aside as naught,
Such trifling things as friction, time and space.
He saw the bird-man fly from peak to peak;
The giant steamship ride the ocean wave;
The cable tie two continents and bid them speak.
Erase from history's marvelous page,
Such names as Edison, Morse, Fulton, Field,
And who would care to read the record of the age?
Let him without imagination say "It cannot be!"
"It can be done!" The dreamer cries, and lo!
In steel or steam or poet's verse comes the reality!
Oh, Emerson! you had prophetic vision of the world to come!
Now countless thousands, men and women, stand today
Where you once stood alone.
Confucius, Buddha, Socrates and He,
The Master dreamer of them all, saw in the coming man,
The perfect image of Divinity.
Oh, who would rob the poor of this divinest heritage of man,
The will to dream?
Then let him dream his dreams who can!

Those who have caught the dreamer's vision are ready to take it up where he put it down. Where he strove alone there may be a dozen or twenty or more who will work for it. To them it does not seem so much like a dream; it is more tangible, more workable. There will be more who will co-ordinate his dream and make it available for human needs. The advantages that we have in medicine, surgery, prophylaxis, hygiene, are dreams come true, bequeathed to us by our predecessors, and they were indebted to those who "in their turn preceded them." The foundations on which we stand were built a little higher for us, and we must add our quota so that those who follow may have a saner judgment, a safer rule of action. We must continue to steer true to the course mapped out for us. By doing this we have already made possible the eradication of diphtheria, lockjaw, typhoid fever, smallpox, and many other diseases. And now comes the assurance that scarlet fever, that treacherous thing that entails so many damaging sequelae, has been conquered by scientific medicine. I say that we have made possible the eradication of these and many other diseases, but this possibility will never be a fact if the people persist in ignoring that which painstaking investigation has proven to be true. The part that medicine has played in perfecting professional ideals is a story of unselfish service, untiring devotion to duty and of actual martyrdom.

Let me recall one outstanding example. After the American occupation of Cuba, it became evident that something must be done to stamp out yellow fever, which was causing such havoc to Americans and Europeans. Consequently, Surgeon-General Sternberg of the U. S. A. appointed a commission, composed of Doctors Walter Reed, James Carroll, Jesse W. Lazear, and Aristides Agramonte, to make a scientific study of it, and in case the cause were found to seek a remedy. When they began their investigation they found a dreamer in the person of Carlos J. Finlay, a Cuban physician, who believed that of the 700 species of mosquitoes found on the island, there was one, the stegomyia, that was the culprit. So persistently and insistently did he urge his theory that people called him a crank, a dreamer. After a few months devoted to investigating the more plausible theories without results, the committee turned its attention to the mosquito and found that Finlay was undoubtedly right. Gorgas, who had already done wonders in cleaning Havana, without decreasing the number of yellow fever cases, said that he would rid it of these pests. But Reed said it could not be done, that it was an unthinkable and impossible task. Gorgas exclaimed, "It shall be done," and it was. The result you know. That, whereas, the city of Havana, which had not been free of yellow fever for more than a century and a half, today boasts that there has not been a case reported there since 1905.

Let me draw you another picture. While the investigation was in progress, Carroll was taken sick and Gorgas was called to see him (Reed being absent in Washington on business). Gorgas found his friend and comrade critically ill with yellow fever, restless, tossing on his bed, and intermittently delirious. During his lucid moments, Carroll told of permitting an infected mosquito to bite him on his arm. His whole thought was on his task and not of himself. Before Carroll had recovered, Gorgas was summoned to the bedside of Lazear. He found him mortally ill; but, before he died, he, too, managed to give accurate details of being bitten by an infected mosquito. Was he thinking of himself? Not at all. His whole thought was of the service he had to perform; and faithful to this trust, he died a little over a week after being bitten. But this is not all. The committee completed its work in 1901. In 1902, Reed died after an appendix operation; but with health broken as a result of his work in Havana. Five years later Carroll died of a heart disease, which developed at the time he had yellow fever. Thus, three out of four members of the committee, true to their ideals, were martyrs to humanity's urgent needs.

Think of the glory of it all! On the meager salary of army officers, these, greater than heroes, laid down their lives that others might live.

"GREATER LOVE HATH NO MAN THAN THIS, THAT A MAN LAY DOWN HIS LIFE FOR HIS FRIENDS."

Members of the California Medical Association:

We may justly be proud of the legacy left us by these members of our chosen profession. Let us be true to the ideals they have established; *true to the* ideal that unselfish personal service pays best, that it is the real essence of living, and it is *this* that has written the names of our comrades in the hearts of grateful men and women.

ADDRESS OF PRESIDENT-ELECT *

By GRANVILLE MacGOWAN, M. D., Los Angeles.

The House of Delegates did me the high honor of selecting me as the presiding officer of the association for the year 1924. Lacking moral courage to refuse this gift of preference I did not seek and for which I was not prepared, it is accepted with grateful appreciation of the honor it confers.

It has been esteemed good form for the president, in assuming the duties of his office, to discourse upon ethics as observed among ourselves, as brethren and as affecting our relations to our clients; upon the desirability of an intensive training of the student of medicine so that he may be the better fitted when time and practice has ripened his judgment and trained his reason to give better service to the sick who may employ him, and be better able to defend the privilege and assert the right of the disciplined and scientifically competently drilled medical mind to act as guide and counsel in all legislative or executive proposals which have as their purport improving, safeguarding or regulating better health in the state or nation.

The president is not restricted in his choice of a theme for a dissertation. He may choose to write and present an essay upon the distinguished dead, who have held high the torch that has spread hope's rays into the beclouded foggy, brumous, cheerless chamber of the sick and made the world a better earth to live upon; or he may, out of his own experience, present his knowledge upon any subject, medical or surgical, the relation and presentation of which he believes will be of instructive interest to his audience.

With this rich cadre to choose from, I have selected a subject which is closer to my heart than any knowledge or surmise that may be gained from the seven major branches of medical science and which in these strenuous days, when the hebetudenous body politic, dulled from the continuous practice of the serious sin of hypocrisy, scarcely noting the prevalent disorder and lawlessness, sits benumbed while the undermining current of the stream of dissatisfaction and distrust of the things that are because they are, skillfully guided, to wash against the jutting foundation of our constitutional prerogatives and protective guaranties by wise, adroit and subtle men, who, having achieved places of authority, wait for the dyke to crumble, believing that out of the eddying currents of the swirling incoming waters of disturbance and destruction will to them accrue the benefit; the right to govern and provide the opportunity for the easy accumulation of great wealth, fame, and power without limit.

Were I a famed dissertator, with my facts and fancies arranged and indexed in the cubicles of my mind so that my facile tongue could, without error or confusion, produce them in orderly array, I would place dependence upon rhetorical skill to arouse in you reflexion and contemplation of the distance that we have wandered from the portals of our constitutional republic and the desirability of pausing before we become altogether lost, and urge returning before it is too late. I prefer the slower but more certain exposition of the written word.

In this century, almost from its beginning, have we, the people of these United States, cast off the moorings of our bark, the republic, from the safe anchorage of that constitution provided for us by that little band of thirty-seven patriots, and of whom seven—George Clymer, Benjamin Franklin, Robert Morris, Governeur Morris, George Reed, and Roger Sherman—twelve years before had signed the Declaration of Independence, mutually pledging "their lives, their futures and their sacred honor" to its upholding. In that interval, the Revolutionary War was fought, and finally won; a delayed agreement among the colonies was finally signed in 1781, as an article of confederation of perpetual union. But there was no union, not even for a day; bickerings, dissensions, exhibitions of faithlessness between the states were continuous. The end of the experiment in freedom seemed to draw near.

Impotence of a Congress, whose powers were flaunted at home and derided abroad, appeared to finally point to this end of the experiment of the rearing of the child of freedom upon the North American continent. The dissolution of the Union into thirteen governments, with divergent interests, different views, ceaseless jealousies, appeared unavoidable. Paralysis of industry, and exploitation by the powerful European kingdoms seemed straight ahead.

In May, 1781, the convention of delegates, charged with the duty of "rendering the federal constitution adequate to the exigencies of the Union," met in Philadelphia. These men, chosen from the states because of their erudition, good judgment, practical business ability, and political wisdom, were presided over by George Washington, then and until he died, the most prominent trusted man in America.

In an age and time when the only methods of communication were the stage coach, the sailing vessel, and the dispatch bearer, and when there was no telephone or telegraph; when the assistance of stenographers, typewriters, and statistical experts could not be availed of; when methods of illumination that make of the night a better time than the day for intellectual work were lacking, the members of the convention themselves, without external aid, did all of the rough drafting, correction after debate, and final shaping of the notes upon each and every measure, including the ultimate engrossment, before signing, working less than 100 days from May 14 to September 17. After much discussion and rancorous debate, by the end of 1788 this constitution had been ratified by all of the states of the Union, except North Carolina and Rhode Island, and the government was in motion before these two states agreed to go along.

* Presented at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May 15, 1924.

Is it, as its socialistic and communistic detractors would have us believe, a damning evidence of its unfairness and incapacity, and its culpable capitalistic tyranny that, under its beneficent protection, in only twelve decades the Union expanded from the boundaries of its narrow strip, extending just a few hundred miles back from the shores of the Atlantic Ocean to cover the entire rich loin of the North American continent from the Bay of Fundy to Cape Mendocino and from the Rio Grande to the Lake of the Woods. Peopled by whom? By the direct and ultimate descendants of the 2,500,000 of the financially embarrassed and physically exhausted colonists who had won a bitterly contested prolonged war for freedom. These capitalistic autocrats, who spun their own clothes, ploughed their own fields, and drew their own nets. While they remained and had their natural increases which gave for many years the leaven to the mass of immigrants with whom they shared their inheritance, a horde of economically discontented artisans and peasants, of ambitious youths longing for a chance to rise above the positions in which they were born and forced to remain by the fetters of class, the politically oppressed, the restless of every branch of the Aryan races of the north of Europe, driven from their homes by adverse fortune, by war, by famine, but chiefly by the hunger for land, which might not be had at home, they came in millions up to the last decades of the nineteenth century, and as they came, spread out in all directions across the mountain ranges and the endless prairies, over the great divide to the Pacific slope. They paused as they went, breaking farms and building cities, establishing states, each with a republican form of government, and everywhere using the same tongue for communication. These children of the constitution, speaking English, the language of the charter-makers, the language of the people who fought for the privilege of the opportunity to found a government which for the first time in the history of the world gave security of individual rights, civil liberty, freedom of the press, religious freedom, popular education, extended suffrage, and freedom of speech. But not the right by speech to incite rebellion and destruction of the government itself, for their Declaration of Independence recites, "Prudence indeed will dictate that government long established should not be changed for light and transient causes."

Under no other form of government except that of a republic could this have been accomplished; but it was a task relatively easy by reason of the similarity of purpose and ultimate aim—the building of states like unto the thirteen originals, which not only furnished the model for government, but the habits and customs of daily life, and the language which makes for homogeneity.

With the exhaustion of the tillable soil, that might be had almost for the asking, we changed to a manufacturing country from an agricultural one, and from then on came, one by one, the changes in our government, insidiously at first, and then the flood. It was the colonist and the emigrant of the first century of our existence who pioneered; it was he who developed the country. It is he and his descendants who are its chief owners now. It is they who chiefly constituted the bourgeois against whom the flood of hate is let loose by envious communistic radicals of a late immigration who have brought their bitter, age-old, fierce struggle against all government. From the countries of Central and Southeastern Europe immigrants came, speaking many tongues, without any knowledge of the foundation of our government or of the opportunities it affords to the poor to cast aside their rags and crusts by industry. Ignorant of our customs, traditions and language, but avid of gain, willing to work for a pittance and able to live upon it, and accumulate for them comparative riches to send back to, or carry home with them to their natal villages, there to live in affluence was their object. Strangers in the land, concerned not at all about its government, living segregated in groups, speaking no language but their own, controlled by patrons, contractors, or bankers of their own race, their scent smelled good to the professional politician, who passed many of them by connivance through the melting-pot and made them citizens, their votes often controlling the destiny of states.

These people, in the closing decades of the nineteenth century, commenced to be diverted to the rapidly expanding industrial life of the mines and the great factories in the great cities, where but too often they had for masters iron-hearted men who, having been laboring men themselves, had lost the mental contact with their class. Men who, in the words of Benassis, "passing from the simple life of a laborer to an easy life of ownership grow unbearable, form a class, half-virtuous, half-educated, half-ignorant, which will always be the despair of governments," drunk with the power of new riches, mercilessly refused to treat with their employees who, incensed at the unfair division of the profits and led by a new class of intelligent and well-paid buccaneers, the labor union walking delegates staged strike after strike, which was met by these stubborn, shortsighted and rich peasant-minded employers by further importations of a flood of cheap—for a time at least—ignorant, debased labor to break the strikes.

Amidst this industrial strife in 1891, the Populist party was born at Cincinnati. This was designed to alleviate all of the wrongs, real or fancied, of the citizens of these United States, whom the goddess of fortune had treated invidiously, but more particularly unfortunate agriculturists and working men. It declared primarily for the free and unlimited coinage of silver, the issue of fiat money, the very issue which kept Rhode Island out of the original convention for the preparation of the constitution, public ownership, the prohibition of alien ownership of lands and the popular election of United States Senators. Late in 1900 the party demanded the election of the President, Vice-President, and Federal Judges, by the direct vote of the people. This party never had enough adherents to place anyone of note or ability in an elective office, but its tenets afforded the opportunity to that wonderful orator, its leader, the grand commander of the order of demagogues and perennial candidate for the presidency to infect the American public with its virus and to make himself the arbiter of

the Democratic party for a score of years. So deep was its benumbing influence that, in 1912, in the platform of the Progressive party, we find it demanding the direct election of United States Senators and the adoption of the initiative referendum and recall, and we even find the illustrious candidate, Theodore Roosevelt, advocating, in Arizona, then as now a radical state, the recall of judges.

I dwell upon these matters because the adoption by the American politicians of all parties of these socialistic measures has insensibly almost completely changed our form of government. Nearly every measure proposed by the Populist party has been erected into a statutory law through one or other of our political parties from reasons of pure expediency. The few who have known what our constitution stands for have feared to oppose the oncoming wave of democracy, or their selfish interests have been served by silence.

This constitution which provided for the election of:

First—An executive.

Second—A legislative body who, working together in a representative capacity, have all power of appointment, all powers of legislation, to raise revenues and to spend them appropriately, and to create,

Third—A judiciary to pass upon the justice and legality of their governmental acts, and to recognize certain inherent individual rights was and should be again the supreme law of the land.

It is simple; its observance makes a republic. Any adding or taking away from the powers of any one of the tripartite changes the government to an autocracy or a democracy, the unfailing breeders of injustice, tyrannical destruction of individual rights and spoliation. Of the two, an unbridled democracy is the worst, for at all times men in crowds will do shameful acts that, as individuals, they would not dare, or doing, deplore. "The constitution provides a way for protecting individual liberty from the invasion of the powers of the government itself, as well as from the invasion by others, more powerful and less scrupulous than ourselves." Under the constitution the people are permitted to do but two things—once in four years to vote for a President and Vice-President, which has always produced a disturbance, social and commercial, and once in two years to vote for a member of Congress in their districts; and that is enough.

If that is done and done intelligently, the voter will have made the best provision possible for the safeguarding of his rights, and if it is done by all who have the right to vote, how can the elected representative gainsay the conscience and intelligence of his constituency?

From direct legislation is substituted, for the conclusions of deliberate judgment and debate, the organized propaganda of prejudice, or the unreasoning demands of the selfish but determined minority, swayed by the oratory of men who by noisy and impudent clamor seek to conceal their interest and full intent by posing as patriots guarding the public funds in the interest of the lowly and oppressed while fishing in the troubled waters for the power and its profits from which an orderly government excludes them.

In seeking a remedy for the evils arising in the selection of candidates for our elective offices, under a representative form of government as expressed in bossism and combinations of great industrial interests for the purpose of controlling legislation and directing it into improper channels, Theodore Roosevelt as leader, supported by men of honest purpose and sincerity, and filled with patriotism as they saw it, sought by girdling the tree to remove all nourishment from the branches which showed evidences of decay, and they opened the way for a slow and persistent attack upon our constitutional growth by the pestilent, destructive, radical insects of socialism, communism and sovietism, which threaten to destroy it. In steering away from Scylla, we scraped the ledge of Charybdis.

In place of the one recognized political boss, who was not always as nefarious as he has been painted, the cabal was substituted. In the place of the caucus, before which no unknown man could appear with any hope of success of obtaining a nomination for office, was substituted the direct primary into which candidates entered without the accredited and public sponsorship of party organization, which in case of misdeed, at least, possessed the power of the disciplinary punishment of ostracism. For the legislative enactment of statutory decrees was substituted the initiative and the referendum, which gave for the first time in history, in a great government, the opportunity for the unsettled, unprepared, and undisciplined voting populace to originate extra statutory measures of law and to enact them, usually to the detriment of the body politic, to the disturbance of order and to the enormous increase of debt burden to the state. At the same time these socialistic demands by bodies intent upon public recognition of their theories of reform have resulted under pressure, including the passage of Article XVIII of the amendments, of the enactment of so many laws in the city, county, state, and nation, that it is no longer possible for anyone to live consciously or unconsciously from sunrise to sunrise without being a breaker of law.

But this was not the only disruptive force at work in high places. In 1912 an educator was elected by the people to be the twenty-eighth President of the United States. This man was an historian and a lawyer, who must have been absolutely familiar with that constitution which he solemnly swore to preserve, protect and defend. Inaugurated in 1913, apparently sane; by education and surroundings presumably conservative, but he had the fatal gift of rhetoric and had acquired a command of our language not equalled by any other American of his time; a phrase-maker; as an educator, an autocrat; as President, a man who, while professing the greatest interest in the people, held himself aloof from them and closed the White House gates. A man who was self-sufficient, and often obstinately refused both before and during the war to give audience or counsel, or advise the highest officers in departmental or diplomatic life, whose duty it was to carry out his behests, and many of whom did not even know him in person. At the same time, the

doors of the President's house were open for the comings and goings of many strange and curious people — propagandists, whose political doctrines were widely at variance with those of a republic and who at times became his personal representatives abroad. A man who was in many ways a wonderful statesman, and yet the first President of the United States to abrogate the sovereign power entrusted to him by the people in the face of duress by menace, in time of public stress by leaders of a portion of the labor world, demanding class legislation. This man, "too proud to fight" when we were in the midst of war, wanted "peace without victory," to make the world "safe for democracy" when he had known, before his exaltation, that there is no safety in a world in which government is unrestrictedly democratic.

Now why does he bring all this to us, I read in some of your faces. This is politics; what have we to do with politics? We are doctors of medicine. We should worry about direct legislation and its results. Sufficient for each day is its own trouble.

I bring this to you, because it is the privilege of my age and position to advise you; because my daily life spent in many countries and in all social planes has taught me, by friendly concourse, the habits and the psychology of the farmer and stockraiser, the mine and the mill, the newspaper office, the police and the criminal they track, the leaders of labor and the transportation manager, the teacher and the mechanic, the banker and the day laborer, the bureaucrat and the legislator, the Church and the brothel, the Samaritan and the reformer, in hovel and in palace. It has taught me to be broad, to value men for what they are and not for what they seem to be. It has dissipated any prejudice I may have ever had and left me with the ability to see clearly, and I thank God that at least I was born in a republic, whatever may be the form of government I am destined to die under.

Government is the contract by which all agree to live together with as little friction and as much freedom as possible. There is no reason why one group should rule more than another. All are citizens, with the certain constitutional rights of all bound as fasces to give the added strength to union. One need not have any illusions about the character of the poor, or of the attitude of the rich. The composing of the differences existing in the ever-present struggle between the multifarious interests of the many callings is an occupation which is entitled to consideration, respect, and reverence. This is politics. It influences every act of our lives, grants or denies every wish, controls our birth and our burial, our movements from place to place by land, by water or air, the character of our residence, our food, the price of our labor, what we drink and when, how we drink it, our luxuries, our comforts, our possessions and what part of them we may keep for our own use. In fact, there is nothing in life, wherever and whoever we may be, that is not controlled by politics—the science of government, which, instead of being an object of derision and distrust to a free people, should be sacred.

I bring it to you because I am interested in you more than in those who follow any other calling, and because I want to awaken in you a sense of duty as citizens and arouse you to the fact that there is a definite, persistent and well-considered and thought-out plan to entirely change the republic of Benjamin Franklin, John Hancock, and George Washington to a socialistic democracy or worse, and that to stand idly by and not oppose it is a crime against ourselves and the calling which we represent.

To realize and understand the true gravity of the situation, we must visualize the unrest and bitterness of labor of all kinds that has obtained during this century; that powerful and often rival industrial organizations have arisen and been in almost constant warfare with the federal government and that of the states, and frequently with each other.

The labor unions of transport with those of the American Federation, always militant, have at times been obnoxiously so. A dictatorial spirit has evolved from these disturbances that a public opinion, adverse to them, has alone at times been able to curb. But in the main, they have been managed by intelligent men to whom the integrity of the constitution, as protector and guarantor of individual rights, means as much as it does to any other set of patriotic citizens. If at times they appear to be selfish, they are not supremely so. They are socialists only in the acquisition of power to control their wage, with no desire to divide it with anyone or submit to extortion on the part of their leaders. But while their aim to control the government has been continuously developed, it is their right to do so if it can be accomplished by legal means and lawful methods.

There are other groups, however, that have a hatred for all control by government and restraint even by their elected leaders, whose mission is to promote and originate factional industrial strife, creating and fomenting discord in the labor world, bringing it into disrepute so that the unions may be destroyed with the government when their masters determine the opportune moment.

During the fierce economic war of the Western Federation of Miners, in its struggle to control the mines of Western America in Colorado in 1903, one of these outlaw unions was created. A labor organization of revolutionary character, the Industrial Workers of the World, was born. I have already stated that my experience with human groups has been so varied that I usually have no difficulty in understanding their group psychology. It is generally easy for me to put myself in the other man's place. But I never have been able to disentangle the twisted political complex of an I. W. W. They are doctrinaires, inhuman and incendiary, who boldly proclaim their dogma—"that the working class and the employing class have nothing in common. Between these two classes a struggle must go on until the workers of the world are organized, as they believe, to do away with capitalization. They claim that there can be no arbitration or conciliation, and no contract is binding on employees. Life is a continual war against the capital class." They recognize any kind of direct action, by strife, fire, poison or bullet, either in mass or individual, against organ-

ized society as permissible and commendable if it is to assist in the winning of their objective.

To produce such a state of mind in a mass of men, who set themselves aside as a class and who go to jail by hundreds and inaugurate the hunger strike in order to impede and clog the courts so as to make more disorder to help the cause, indicates a sullen hatred engendered by a conscious or unconscious injury by someone representing the law, as described by Balzac in "The Country Doctor," published in 1832. "The men to whom power is momentarily conferred never think seriously of the effect in the long run of an injustice done to a man of the people. Such injustices keep up in the minds of the people a covert hatred against social superiority. The bourgeois becomes and remains an enemy to the poor man, who forthwith puts him outside the pale of law and deceives and robs him. To the poor, robbery is no longer a crime, but a vengeance. If when a question of justice to the poor man arises an administrator maltreats him and cheats him of his acquired right, how can we expect the unhappy, perhaps starving, creature to feel resignation at his wrongs or respect for property?"

The I. W. W. are never at peace. Always at war with their hands against all who are not affiliated with them. During the World War, they posed as pacifists and went to jail, sooner than fight for the country. With their purposes avowed, they still attract that foolish sympathy so usual in this country for the underdog, without inquiry as to why he is under. Because of their incessant clamor about injustice and martyrdom, active organizations of rich socialists like the Civil Liberties League defend them in the courts and assist them in every conceivable way in their struggle with the government.

But we have a greater and mightier force, for which the I. W. W. is as the prophet John, who went to prepare the way for him who was to follow. An organization not ephemeral, but rich and powerful, whose tenets and rules of conduct are widely different from the ethics which control daily life among governments. It was organized by Carl Marx in London, in 1864, and grew out of the association of English and continental workmen in the World Exposition two years before. It is the International Workmen's Association, known today as the Third Internationale. It had many vicissitudes, but ultimately became the breeding ground for anarchists of the Bakunin type, "propagandists by action," like Johann Most—the type that has destroyed so many European rulers and assassinated two of our Presidents and attempted the life of a third. But, after all, the revolutionary anarchist is dangerous only to those who are rulers. The Internationale has another lot of lawless children who are dangerous to the governments themselves—the syndicalists. Syndicalism is a political and industrial doctrine which demands "that the means of production be distributed to and the government turned over to those workers who are actually useful." Unrestricted force is its basis. It differs from the I. W. W., in that the latter looks forward to the eventual control being in the hands of one big union, while syndicalism uses the same weapon of pacifism to get rid of the army, inaugurating in a general strike a reign of terror, with violence and cunning obtaining political control by abolishing capital, destroying any police force that may attempt to restrain them, reaping the field that socialism has sown, which compels capitulation or, as in Italy, a dictatorship to escape it.

Long before the European war, the Internationale was strong in Russia. These followers of Marx divided themselves into the moderates, who were just ordinary advanced types of socialists; the Mensheviks, and the ultimates, or extremists; the syndicalists, the bolshevists. When German intrigue had broken down the Imperial Government of Russia, the mensheviks, the social democrats were, for a short time, in power, but under the rhetorician, Kerensky, who could talk but not act, it did not take very long until the intrepid, cunning, wise, powerful and unscrupulous doctrinnaires, the syndicalists of the Internationale, though in a minority, had seized the government and established the soviet—a word which, signifying council and concord, has become synonymous with absolutism and discord, chaos, and disaster. Their leader, Lenine, "offered to the oppressed toiling masses the opportunity to participate actively in the free construction of a new society, a higher form of democracy, the organized form of the dictatorship of the proletariat."

These men who had had their program long prepared were men of action and not of words. Many of them were not even Russians, but all were men admirably fitted for the task they had undertaken. They immediately proscribed the following classes, in that all those who employed others for profit, those living on incomes not derived from their own work, from interest or capital, industrial enterprises, or landed property, private business men of all kinds, including all of the learned professions, middlemen, priests of all denominations, those who had been connected with the police, lunatics and criminals, were not allowed to vote or have voice in governmental affairs. Then this band of criminals, commanded by, as events subsequently proved, a paretic, proceeded to put into effect a scheme of government which, for oppression and murderous malignancy, destroying untold millions of human lives and reducing to poverty and misery all of the creative and administrative intelligence of the land, has never been equaled in any other revolution since the world began. At first, and for a long time, their government was an interesting experiment for the philosophic looker-on and even now, if its results were confined to the country in which it was tried, the interest of other peoples might be only an academical one, for it is axiomatic that the people of a country ultimately obtain the government to which the degree of their intelligence and their virility entitles them. But guided by their idol with the luetic brain, a human Robot, without conscience, faithless, denying the sacredness of any pledge, and of all financial responsibility, they complacently left their subjects to starve while spending the money which they had acquired from the government preceding them, and all that they could extort and rob wherever it could be obtained from private purses, banks, industrial establishments and churches in all Russia so that they might, by bribery and corruption, through the agents of the Third Communist Inter-

nationale, undermine and overrun all the other governments of the world, spending only at home what was necessary to acquire and maintain a great Red army to suppress all freedom of speech and action at home and prevent any counter-revolution, and to be used, if necessary, like that of Mahomet to force the doctrines upon an unwilling world by conquest.

The Soviet Government at Moscow is now the absolute rulers of all Russia, and is synonymous with and controls the Third Communist Internationale. It is and has been for over four years the bitter and persistent enemy of this republic, seeking to destroy it by the silent process of attrition. Many of its leaders have lived in our country and speak our language, and know that two governments supposedly democratic in principle, but as widely different as the sun and darkness, cannot exist together on this earth, and that for the survival of their own chosen form ours must be destroyed. Controlling an imperial purse and indifferent to the economic condition of their subjects, they have much conscious aid among our own people who take, as Judas did, the pieces of silver. The proofs of this are and have been in the possession of our government at Washington, gathered at home and abroad by the agents of the State Department and the Department of Justice under both the Wilson and the Harding administrations, according to the public admissions of the Attorneys-General and the statement of Mr. Hughes, our Secretary of State, and recognition of their government has been steadfastly declined on the ground that it would be opening the door of our house to an enemy. Take heed from the Scriptures: "But know this that if the good man of the house had known in what watch the thief would come, he would have watched, and would not have suffered his house to be broken up."—Mathews xxiv, 43. But know this: A million thieves are boring from within; the shutters are loose and the threshold is worn.

The most of us have contributed to the delinquency of our government, state and national, by fervor or by lack of understanding. Intelligentsia have no place under a Soviet, except in jail or the grave. Before we face a civil war, let us go back to the republic which has its best protection against aggression from without and dissension from within, in its possession of an unceasing flow of unending millions of young voters with sound bodies and sane minds to obey its fiats and uphold its laws, and this may only be obtained by a common compulsory military training, which adds to the principle of universal suffrage the appreciation of its honor, and breeds a willingness to make any sacrifice to uphold the government, which assures its permanency.

I bow the knee to General George Washington, who, rising from the President's chair in the constitutional convention 137 years ago, when palliatives and half-measures were suggested in the debate, in the fear that the people might not approve it, and speaking with suppressed emotion, said:

"It is too probable that no plan we propose will be adopted. Perhaps another dreadful conflict is to be sustained. If, to please the people, we offer what we ourselves disapprove, how can we afterward defend our work. Let us raise a standard to which the wise and honest can repair. The event is in the hands of God."

RELATION OF SURGERY AND RADIOTHERAPY IN THE TREATMENT OF MALIGNANT DISEASES *

By REX DUNCAN, M. D., Los Angeles

The undiminished, if not increased, mortality rate from malignant diseases would seem to indicate that little has been accomplished in the prevention or treatment of cancer. As a matter of fact, however, considerable progress has been made. Our failure to reduce the mortality rate is due not so much to our lack of knowledge as to our failure to apply to the individual case that treatment, or combination of treatment, which experience has shown offers the greatest prospect of benefit or cure. Propaganda for the purpose of educating the public and the profession has undoubtedly led to the earlier recognition of malignant diseases and the treatment of early malignant conditions. While this is extremely important, we must demonstrate to the public and profession statistically our ability to cope with malignant diseases.

The treatment of malignant diseases necessarily depends upon the characteristics of the individual case. First, it is necessary to determine definitely the location and character of the disease and possible extension or metastasis, as well as to ascertain definitely the patient's general physical condition. Secondly, one must possess a thorough knowledge of the clinical course of the type of malignancy existing. Third, it is extremely important to know the histopathological characteristics of the particular neoplasm. Fourth, one must possess sufficient training and experience with the various methods of therapy to determine that type of treatment or combination of methods which offers the greatest possibility of cure.

Recent developments in the histopathological studies of neoplasms have added a new and ofttimes determining factor in our consideration of the treatment of malignant diseases. It is no longer sufficient for the pathologist to tell us that the neoplasm is simply benign or malignant, but he must tell us more definitely of the degree of malignancy. The most important factor with which we have to deal in carcinoma seems to be the degree of cellular activity. The more a carcinoma tends to differentiate, that is, resemble normal tissue, the lower is its degree of malignancy. Conversely, the more embryonal or more undifferentiated the cells the higher the degree of malignancy. Upon these facts Broders, in 1919, classified epithelioma of the lip into four grades. His plan of grading dependent upon the degree of cellular activity is briefly as follows: Grade 1 is an epithelioma, which shows about three-fourths of its structure differentiated and about one-fourth undifferentiated, with no mitotic figures and no "one-eyed" cells. Grade 2. If the percentage of differentiated or undifferentiated epithelium are about equal, with an occasional mitotic figure and "one-eyed" cells. Grade 3. If the undifferentiated epithelium forms about three-fourths and the differentiated about one-fourth of the growth, with

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numerous mitotic figures. Grade 4. Where there is no tendency for the cells to differentiate, with numerous mitotic figures and "one-eyed" cells.

This work has been extended by Broders, ourselves and others to cover carcinomata in general. During the past year, in our laboratories we have demonstrated that carcinomata undergo progressive changes in their grades both in the primary lesion and in the metastasis which explains the sudden and rapid progress in certain cases of cancer. We have carried the work further to demonstrate the relative radio susceptibility of the different grades, which work is to be published in detail. Broder's studies cover a series of 537 cases of epitheliomata treated surgically at the Mayo Clinic. A division of the epitheliomata according to cellular activity on the basis of one to four, and the mortality according to grades is as follows: Grade 1 represents 15.82 per cent and a mortality of 11.12 per cent; Grade 2, 61.1 per cent and a mortality of 33.33 per cent; Grade 3, 21.4 per cent and a mortality of 75.38 per cent; and Grade 4, 1.11 per cent and a mortality of 100 per cent. Inasmuch as this relation in the grade and mortality applies to carcinoma in general it is quite obvious that operability is not dependent entirely upon the anatomical distribution of the disease, and that even in so-called operable cases surgery has its distinct limitations.

In more than one hundred cases of carcinomata treated in our institution during the past year, we have been able to make certain histological studies both before and at various intervals after these tumors have been exposed to irradiation. Microscopic sections were made before radiation in order to determine the degree of cellular activity and to ascertain the particular cell type. After radiation, sections were studied at fixed intervals in order to determine histological changes which had taken place. Histological changes produced in cancer, as a result of irradiation, were similar in all four grades. There is a marked difference in their degree of susceptibility. Grade 1, which more closely resembles a normal tissue, is more resistant, while grades 2, 3, and 4 are more sensitive, respectively, as they are more embryonal in type. We have demonstrated that the radio susceptibility in cancer depends in a marked degree upon the histopathological characteristics or grade of the neoplasm, the age of the host, and the quantitative relation of the pathological to normal tissues. These points are of particular importance from a surgical standpoint. Grade 2, which offers a poor surgical prognosis, and grade 3 and 4, which are practically hopeless from a surgical standpoint, are most susceptible to radiation therapy, and should always receive radiation either alone or in combination with surgery, dependent upon the characteristics of the individual case. The second or quantitative relation of pathological to normal tissues, particularly in Grade 1 and 2 carcinomata, explains the necessity for surgical combination, with radiation in certain cases that would offer a poor prognosis from either method alone. There are certain types of massive breast tumors with metastasis, generally considered inoperable, that do, with preliminary radiation, consisting of the burying of radium emanation tubes and high voltage x-ray, radical surgery and post-operative radiation, yield surprisingly good results. Large, malignant papillary and cystic tumors of the ovary yield remarkably well to combination treatment. The same principle applies to a large number of neoplasms. I would particularly stress, however, the extreme importance of adequate preliminary radiation in these cases.

Murphy and Wood have each demonstrated, experimentally, that cancer cells previously radiated do not transplant favorably, and also that normal tissues previously subjected to radiation are an unfavorable medium for the growth of transplanted cancer cells. These observations confirm our studies and explain the pre-operative value of radiation in neoplastic diseases, which produce not only inhibitory or destructive changes in the cancer cells, but render the normal tissues an unsatisfactory media for their development, and also explains why even certain cases of incomplete surgery with preliminary and post-operative radiation may yield surprising results. We should, however, bear in mind the old axiom that incomplete surgery alone in malignant diseases always hastens death.

Treatment, then, must depend upon the application to the individual case, all of the pertinent facts previously referred to, combined with a broad clinical knowledge and experience.

Unfortunately, our medical training has taught us to look upon malignant diseases from a purely surgical standpoint. If operable (the term operable has an extremely broad interpretation), such surgical procedure is undertaken as the training and ability of the individual surgeon permits; if inoperable, or recurrent, a hopeless prognosis is rendered, and the patient is either sent home to die or referred to someone, usually the radiologist for palliative treatment. This attitude may have been justifiable twenty years ago, but certainly the progress in other methods of therapy, together with the clinical value of the pathological study of the neoplasm, necessitates a complete readjustment of our ideas regarding the treatment of malignant diseases. An unprejudiced study of the abundant statistics, extending over a period of years, demonstrates quite conclusively the value and limitations of surgery alone. The past ten years have seen a marked development in radium therapy, and during the past two years tremendous progress has been made in x-ray therapy. The shorter time for observation is more than compensated for by thorough histological studies of the effect of radiation upon neoplastic and normal tissues.

Adequate facilities for the use of radium emanation permits of a much more elaborate technique and greatly increases the scope of radium therapy. In those cases in which it is possible to effect an equal and homogeneous radiation with radium—and for this purpose the burying of the emanation tubes is of extreme value—the effect upon the neoplastic tissues is in many instances more favorable than that obtainable by x-ray. However, recent developments in x-ray make it possible, with high voltage equipment, to effect a homogeneous radiation of the neoplasm in any part of the body without injury to the overlying or adjacent tissues and without serious

constitutional disturbances. We have had an opportunity to observe, during the past eight years, microscopically and clinically, the local and constitutional effects of radium therapy in nearly four thousand cases and more than five hundred cases treated with high voltage x-ray therapy during the past two years.

The time is not propitious for a detailed discussion of radio therapy, but suffice to say that we have, with proper equipment and technique, facilities permitting the employment of radium and x-ray, either alone or in combination, as a means of effecting or destroying malignant cells in practically any portion of the body. Neither is it within the province of this paper to attempt to outline in detail the precise method of treatment of any of the numerous types of malignant diseases; rather would I emphasize the basic principles underlying the intelligent treatment of neoplastic diseases, leaving their precise application to a more exhaustive discussion of certain types or individual cases.

While less study has been given to sarcoma and other types of neoplastic diseases, in a general way the same principles apply as in the treatment of carcinoma, although, on the whole, sarcoma is less favorable from a surgical standpoint.

There is sufficient statistical material available covering certain types of cases based largely upon their anatomical distribution to permit of a comparative value of various methods of treatment. As an example, we may cite cervical carcinoma, in which radium therapy alone yields clinical cures in 75 per cent of the earlier or operable cases as against approximately 20 per cent from the most radical surgical procedure. Willis, in a recent report, covering the operative end-results of more than two thousand cases of carcinoma of the breast treated by our most capable surgeons, shows clinical cures for a three-year period of approximately 35 per cent as compared with recent reports by Lee, Sittenfield, and others, showing clinical cures of approximately 85 per cent from combined radiation and surgery. Lymphosarcoma, on the other hand, is strictly a non-surgical condition yielding favorable results from combined radium and x-ray therapy. In superficial epitheliomata there are obtained not only a higher percentage of cures, but much more favorable cosmetic and functional results with radium than by x-ray or surgical methods. In malignant diseases involving the bone, surgical methods, preferably cautery, combined with radiation therapy is essential.

It is obvious, from a consideration of the above, that the treatment of malignant diseases is not a matter to be considered from the standpoint of any single method of therapy, but requires a thorough knowledge of the various therapeutic methods, as well as a thorough understanding of the pathological and clinical course of the disease.

A broader and more intelligent application of the above factors to the treatment of the individual case would relieve untold suffering and yield a higher percentage of cures, improve our mortality statistics, regain the confidence of the medical profession and the public, and prove a determining factor in solving the cancer problem.

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DISCUSSION

John M. Rehfisch (391 Sutter Street, San Francisco)—A paper like this of Duncan's is a very welcome addition to the literature in these days, when the schoolmen of radiology both in this country and abroad are exercising their wits in the pursuit of the new philosopher's stone, the cancer dose. Duncan lays emphatic stress upon the complicated multiplicity which underlies the superficial, simple unity of malignant manifestations. He has chosen to lay special emphasis upon the morphological differences which influence the reaction of tumor cells, and has ignored other less well-known—perhaps hardly even guessed at—biological factors which, undoubtedly, play at least as important parts in tumor growth and control.

In the present state of our knowledge, and with the present necessity upon us of weaning the unwary radiotherapist from the dangerous doctrine of the cancer dose, it is probably wise to stick, as Duncan has done, to items of propaganda that are susceptible of physical demonstration. Let us hope that the biologists will shortly give us other biologic data even more important than the morphologic on which to base our theories and our practice of radiotherapeusis.

I wish most heartily to second Duncan's plea for more consistent combination of surgery and radiotherapy with the employment of pre and post-operative courses of radiation. Many surgeons are missing opportunities for improving their results in malignancy by adhering to their old and formerly quite justifiable custom of inviting the aid of the radiotherapist only in their hopelessly advanced, and sometimes their moribund cases. Little by little, by demonstration and by precept, we should seek to do away with the widespread surgical preconception and prejudice that radiotherapy is a placebo for the hopeless and a gentle and harmless diversion for the dying.

Edwin I. Bartlett (291 Geary Street, San Francisco) — Conflicting opinions between radiotherapy and surgery values in the treatment of cancer are naturally stronger among those whose training and experience has been more highly developed in a limited field. Then, too, evidence in both fields is frequently inconclusive because of competition or prejudice. Radiotherapy is a therapeutic agent of increasing value, but it will not now accomplish all that some of its enthusiastists claim for it. Conservatism is a necessity if radiotherapists are to give patients the greatest number of chances for a cure, and if they are to retain the confidence of the medical profession.

The use of radium against malignant disease is still in the stage of experimentation, and must necessarily remain in this state until more is known about its biological reaction and more definite rules for dosage are established. Statistics and discussions of the comparative value between surgery and radium in the treatment of malignancy are unfortunate, and do not add to progress in the prevention and cure of these diseases. Most experienced students believe that where surgery cannot accomplish a cure radium also fails, while, on the other hand, where radium fails, surgery may accomplish a cure. In other words, surgery fails only where the disease cannot be eradicated or reached. When there are metastases, radium is not effective and surgery seldom so.

This statement is supported by pathological examination, follow-up records over long terms of years, and frequently by autopsy reports. It is not dependent upon "surprising results" or "clinical cures" based upon a record over a term of a few years. It may be true that a totally undifferentiated epithelial cell is very susceptible to radium, but this does not prove that radium should be employed in place of surgery

in cancer of the lip; the cases cited by Duncan ultimately died of metastases over which radium had no control, regardless of the degree of differentiation. On the other hand, if the type of cancer which invariably metastasises is not curable by radium because of that fact, and the type which does not metastasise until very late is extremely resistant to radium, then why is it not better to use surgery first in all cancers of the lip? It is admitted by all that radium will frequently get rid of the local lesion, and when combined with proper gland dissection may yield as satisfactory a result as surgery. Furthermore, in many localities and in non-metastasising growths its use in the treatment of the primary lesion is decidedly preferable. If we cannot realize, however, its limitations, radium will prove a curse rather than a blessing, under the present knowledge as to its action. One cannot help being enthusiastic about anything which promises cures in cancer, but for the present we cannot afford to give precedence to any physical agent where proper surgery holds out proven opportunities for a cure. The locations where radium treatment is most promising are the same locations where surgery has already fully demonstrated its curative value.

Frank W. Lynch (University of California Hospital, San Francisco)—Doctor Duncan states that our present knowledge concerning cancer forces a revision of the idea that the treatment of malignant disease is purely surgical, to which all cancer students unhesitatingly agree. Of that there can be no possible doubt. As a reason for his belief, Duncan states that, working along histopathological lines, he has been able to classify his own cases so that he may select radium or radium and surgery as a proper method of treatment for an individual case.

His article presents chiefly propaganda, and from that standpoint merits no criticism, because there is no doubt that there are an enormous number of surgeons who are as yet unconscious of a fact that has been established for years; i. e., that surgery can cure only such cases as permit of the removal of the entire cancer-bearing area, except in a few types of a semi-malignant growth. Since early, or operable growths, are unfortunately extremely rare, radium or high voltage x-ray should be used for the very great majority of cancer cases now being presented for treatment.

From the standpoint of a scientific article, however, Duncan's paper is open to many criticisms. Thus, he presents no detail of his own investigations (although he promises it later) so that others may pass upon them. This would be unimportant were it not for the fact that Duncan urges a further restriction of surgical procedures and a corresponding increase in radium and x-ray therapy. Even at that, there could be no objection to this doctrine if cancer therapy is to remain in the hands of the general practitioner; but Duncan states, at the beginning of his paper, that one who undertakes the treatment of malignant disease must possess not only a comprehensive understanding of the structure of the neoplasms, but also of its individual methods of growth so that he may select the type of therapy which is best adapted to the individual case. This would remove the treatment from many practitioners. From the standpoint of the specialist, we must judge the paper.

Duncan, unfortunately, misquotes the literature—a most serious error, since many men who do not have a first-hand knowledge of the literature quote from this type of paper and develop their own method of therapy from them. The misquotation to which I refer is in reference to cervical cancer. He argues that "cervical carcinoma, in which radium therapy alone [is used] cures 75 per cent of the earlier or operable cases, as against 20 per cent from the most radical surgical procedures."

The facts are quite different since a radical operation in a properly selected case cures upward of 50 per cent. The most radical procedure for the treatment of cancer of the uterine cervix is that of Ries. This surgeon reports that, of thirteen cases surviving operation, seven were alive, one living twelve years, one eleven years, one ten years, two nine years, and one seven years. The seventh case was counted lost sight of, although she returned with a growth in the inguinal canal nine years after operation, was reoperated, and followed for one year later. The ordinary radical operation for cancer of the uterine cervix is that of Wertheim. These reports are in recent text-books. Wertheim's series comprises 863 cases, of which 36 refused operation, 447 were inoperable, and 380 were operated. There were 160 cases which were free from recurrence at the end of five years' observation, or 53 per cent of the cases surviving operation, or 43 per cent of the cases operated, or 19½ per cent of the entire number of cases of operable and inoperable cancer which were presented for treatment. Cobb, in Boston, reports that 83 per cent of his private cases ssurvived a five-year period of observation and reported without recurrence. In nearly all series, surgeons have excluded the cases which died following operation from the list from which they calculated their percentage of cures. Strictly speaking, therefore, these operative results should be reduced approimately 2 0per cent for operative mortality if you desire to contrast them with the results of radium. Duncan's statement, therefore, is a serious error. Had he said, however, that surgery did not cure 20 per cent of the women operated on throughout the country for cancer of the uterine cervix, we would be compelled to say his percentage of estimated cures were too high. He did not, however, so state.

If the surgeon is in error for various definitions of the term "operability"—and there is no doubt but that he is—the radiologist has to answer usually for a more serious fault. It has taken the surgical world a full generation to learn that no case can be counted a cure that has not stood for a minimum of five years. Many cancer students insist upon seven, since Weibel has shown that 6.6 per cent of Wertheim's 169 cases which had stood for at least six years developed carcinomatous recurrences in the pelvis six to eight years after operation. In spite of this, the radiologist has flooded the literature with reports of "clinical cures" that have stood for comparatively few months. It seems a pity to thus confuse the literature. While anyone can get nearly any type of statistics he desires from any literature, it is well worthwhile to turn to the reports of Bumm of the University of Berlin, considered by many one of the most brilliant of the European operators and one who has had an extremely large experience in radiotherapy. His report reviews his own series of early and operable cases, some of which were treated by operation alone, while others received only radium. Only 28½ per cent of fourteen operable cervical carcinoma which were radiated and not operated remained cured for a five-year period. Of 157 similar cases operated and not radiated, seventy-seven, or 49 per cent, were well after periods from six to eight years. Bumm emphasizes that the percentage of cures after radium in operable or border-line cases of carcinoma of the cervix was one-third less than that obtained by operation if the cases had stood for six years. When the cases are observed for a period of only three years, the results of radium far surpass those of operation. These figures, while in accord with the facts, confirm in another way that he who would treat cancer properly must be prepared to use surgery, radium, and high voltage x-ray.

R. E. Skeel (The Westlake Professional Building, Los Angeles)—Doctor Duncan's paper is of so general a character that its discussion is difficult, but two features perhaps may be specifically mentioned. Microscopic diagnosticians have known for years that certain cell characteristics indicated that some growths were possessed of a higher degree of malignancy than others, but I believe it will be a considerable time before a definite classification can be adopted on this basis, and it never will be possible to consider this alone to the exclusion of clinical

signs, duration of the growth, its location, etc. There is no doubt, however, that this attempt is a step in the right direction, and its continued study is judicious.

Speaking generally, the trend is away from the huge, high mortality, radical operation for advanced or moderately advanced cancer, since the ultimate outcome in the individual case is bad, and the effect on the public mind such as to discourage operative procedures upon patients in whom operation might prove curative.

Thus in cancer of the cervix, while I remain skeptical as to the permanent cure of even the moderately advanced case by any method of treatment, I am convinced that palliative methods prolong life and relieve suffering, and of these methods radiology is by all means the most promising. It is conservative to say that the high mortality extensive operation carries with it no better "clinical cure" outcome, while every operative death or early recurrence makes many potential enemies for all surgery in cancer.

"Early cancer extensive operation, late cancer little or no surgery," is the best surgical motto, and to this radiological treatment adds an element of hope not to be obtained in any other manner.

Doctor Duncan (closing)—The purpose of presenting this paper was to urge more careful study and broader consideration in the treatment of malignant disease, particularly referring to certain scientific work that unquestionably demonstrates that radiation therapy is a very valuable adjunct. It is unfortunate that many men who consider themselves competent to discuss and treat malignant disease surgically and otherwise have little knowledge of the pathological aspects of malignancy, a very limited clinical experience, an incomplete knowledge of the literature and—as would naturally follow—decidedly prejudiced opinions.

Replying to Lynch's criticism of my statistical reports, I would suggest that he review Janeway's paper, which was the most comprehensive statistical report on uterine cancer covering approximately 6000 cases reported by various surgeons throughout the world. And I further repeat, that based upon this report of a large number of cases operated by numerous surgeons, that the ultimiate clinical cures resulting from surgery alone in early cervical carcinoma were less than 20 per cent. It is quite true that there have been reported small series of carefully selected cases operated that yielded a much higher percentage of cures; however, this would include such a small percentage of the actual cases of uterine cancer and of those actually operated on as to be of little real statistical value.

I agree with Lynch when he says that "He who would treat cancer properly must be prepared to use surgery, radium, and high voltage x-ray," but would add, with emphasis, that he must also have proper facilities and training, as well as a thorough understanding of malignancy to use them in their proper relation. Referring also to a more detailed report of our investigation, I would refer the doctor to the article entitled, "The Grading of Epitheliomata and Their Radiation Sensibility," published in the New York Medical Journal, page 681, under date of December 5, 1923.

An opportunity to observe thousands of cases of malignancy treated by various methods during the past ten years has convinced me that we all have much to learn regarding this disease. However, there is no question but that a thorough study of the individual case and a less prejudiced and broader use of various methods or combination of methods of therapy of proven value would yield more favorable results in the treatment of malignancy and as a consequence increase the confidence of the public and the profession in our ability to cope with malignant diseases.

THE SECOND GREAT TYPE OF CHRONIC ARTHRITIS IN ITS RELATION TO INDUSTRIAL ACCIDENT CASES *

By LEONARD W. ELY, M. D., San Francisco

The relationship of trauma to the second great type of chronic arthritis is a question of frequent recurrence in industrial accident cases, and seems as far from settlement as it was years ago. Opinions differ radically, and cases are argued again and again, coming up periodically for adjudication. Sooner or later the problem must be solved, and as a step to the solution I am bringing it up for discussion at this meeting. Let me state the problem as it usually presents itself. A man at work falls; or he twists, wrenches or strains his spine or one of the larger joints of an extremity. Immediately, or after a short interval of time, he complains of pain. If the injured joint is of an extremity the pain is felt in the affected joint; if the spine is injured, the pain is felt in the back or running around the trunk, or more frequently down the lower extremities. Less often the pain runs down the arms. X-ray films are taken, and show the spurring and lipping characteristic of the form of arthritis known by so many different names—hypertrophic arthritis, degenerative arthritis, osteoarthritis, arthritis deformans, etc., etc. What relation has the injury to the arthritis, or, more exactly expressed, what relation has the injury to the bone and cartilage changes plainly shown by the X-ray film?

In the past the opinion has been strongly held that the bone changes were the direct result of the trauma, but of recent years this view has been challenged on many grounds, viz.:

1. In almost every disease of bones and joints, trauma has been advanced as the cause. As our knowledge of the disease has increased, the impossibility of trauma causing it has been demonstrated. This is true of tuberculosis as well as of other infectious processes.

2. Bone can be injured in one way only, and that is by fracture. It cannot be strained, sprained, or suffer contusion. Trauma either fractures a bone or leaves it uninjured. In the absence of a fracture, bone can be attacked only by a disease of its contained marrow.

3. The gross bony changes existing in these cases must take a long time for their formation. It is impossible that they would appear on an X-ray film taken a day or two after an injury if they had not been there already. They must have been present before the injury. This view is substantiated by the presence of the same changes in other uninjured joints, radiographed at the same time. In the spine especially, when the pain is felt in the lumbar region and running down the legs, the X-rays may show more or less extensive involvement, perhaps of the entire spinal column.

4. This disease is seen almost invariably in persons of middle and later life. It is unknown in children. It occurs almost exclusively in persons

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whose alveolar processes have abscesses at the roots of their dead teeth. Young people injure their joints as much as older people, but, immune from these root abscesses, they are immune also to the disease under discussion. On the other hand, the disease occasionally is seen in persons with sound teeth.

5. Intestinal parasites have been found in the stools of a large proportion of the patients, and are suspected as the cause of the bone lesions. Their portal of entry is assumed to be in the great majority of cases the suppurative osteomyelitis at the roots of the teeth.

In a case like this, when opinion is so divided, the solution is often found by laboratory study. I might instance pulmonary tuberculosis and appendicitis. Clinical study was unable to find the cause of either disease.

The gross changes of this type of arthritis have been known for a long time. They have been recognized in Egyptian mummies, it is said, and since the introduction of the Roentgen rays, their frequency has been appreciated. On the other hand, the histological changes have received rather scant notice, though a few writers have given excellent descriptions of them, notably the late Dr. Nichols of Boston. They have always been rather mysterious. Their sequence was hard to figure out. Given the original tubercle in bone marrow, what followed then in the bone, cartilage and joint was quite comprehensible, but in the second type of arthritis we noted the remarkable changes in the bone and joint tissues, and could not detect what was behind them. No reliable evidence of any bacterial infection ever has been adduced.

Three years ago I called attention to the areas of aseptic necrosis in the marrow in the immediate vicinity of the joints in specimens of this type of arthritis, and ascribed to them the primary role in the pathology of this disease. Since then I have accumulated more material, and have confirmed the observation repeatedly. They constitute the fundamental change. What follows in the bone and cartilage is the result, and its sequence upon the primary necrosis in the marrow is comparatively easy to understand. The pathological changes in the tissues in and about the joint may be briefly enumerated, more or less in the order of their occurrence:

1. Bone production immediately under the articular cartilage, and especially at its circumference. This bone formation probably extends into the ligaments for a short distance, giving the appearance of the spikes and spurs seen in the X-ray films, but not extending from bone to bone to produce a bony ankylosis, except possibly in the spine. It forms a layer of greater or less thickness under the articular cartilage, causing it to degenerate. More or less of the cartilage is also transformed into bone. Bone formation also goes forward within the bone, but not to a marked degree. The necrosis in the marrow causes a preponderating bone absorption, and this bone absorption can usually be detected in the X-ray film, if it is looked for. All these changes take time to produce; hence, if they are present a few days after the occurrence of an injury, we know that the injury did not cause them, but that they were there before.

2. Part of the articular cartilage may be transformed into bone, as has already been said. As the result of the damage to its nutrition the rest of the cartilage becomes fibrillated, degenerates, and then, in whole or in part, wears away, leaving the subjacent bone bare. This thickened subjacent bone becomes polished like ivory (eburnated), and becomes grooved in the line of joint motion.

3. The synovial membrane becomes thickened, fatty, fibrous, and villous. In other words, as the result of the bone and cartilage changes, which have distorted the joint, and probably exclusively as the result of the trauma occasioned by the ordinary use of the joint, viewed as a damaged machine, a chronic synovitis or arthritis is added.

The changes enumerated above may occasion considerable pain, but more often do not. On the other hand, a badly affected joint may be comparatively painless for a long time, and then, without known cause may become very painful. The pain may become so severe that a resection of the joint offers the only relief. Sometimes the disease is painless, and then the characteristic changes appear as accidental findings in the X-ray films.

Let us now state the problem as it exists in industrial work: A man falls, or wrenches one of his larger joints, particularly one of the joints of his spine. He complains of pain and disability. The radiogram shows the characteristic changes of this form of arthritis. After a greater or less time the man complains that the pain and disability have continued, and puts in a claim for permanent disability. Just what relation does the injury bear to the case? I have maintained for some time that all results of the injury were only temporary, and I have reached this conclusion along two lines of reasoning:

1. We have been paying especial attention to this disease at the Stanford Medical School for a number of years, and I do not remember to have seen a case unconnected with accident work in which a simple trauma resulted in permanent disability. The disease is very frequent. We can usually count on about 100 cases a year out of about 1000 patients. Many of our patients give no history of trauma. Some date their symptoms from a trauma, but we expect the symptoms referable to the trauma to subside in a few weeks. Thereafter we look for the disease to take its natural course. If intestinal parasites be eradicated in either case, and if all dead teeth be removed, all symptoms may subside in the milder cases, but we always remember that the pathological changes are permanent, and look on the joint as we would upon any other damaged machine. If it be required to perform the work of a normal joint, or if it undergo a slight strain or sprain that in a normal joint would pass unnoticed, pain, stiffness, and limitation of motion may recur. No operation can restore the normal contour of the articular surfaces, nor make normal cartilage grow over the roughened end of the bones.

2. The second objection to the traumatic theory is the loose and vague employment of the word "trauma," a looseness and vagueness unknown in the discussion of organs other than bones and joints. Just what is this trauma? One does not speak of

a trauma of the appendix or muscle. The appendix may be ruptured, the muscle may be contused, severed or lacerated. Leaving out the results of penetrating wounds, we can conceive of two things only which trauma can do to the joint tissues. It can cause an intra-articular fracture or a sprain.

The presence or absence of a fracture can be demonstrated by the Roentgen rays.

The symptoms of a sprain subside in a few weeks.

There is one important aspect of the great second type of arthritis in its relation to industrial accident work, as well as to other surgical work, that has not received the attention it deserves. I allude to its relation to intra-articular fractures. To it are probably due the stiffness, pain, and restriction of motion following intra-articular fractures in elderly persons, and the only rational explanation we can make for this fact is that the fracture set free into the joint the infectious material previously locked up within the bone.

I wonder that we have been able for so long to plead this connection between the great second type of arthritis and trauma. Some day, I feel sure, the thought will occur to some examining attorney of penetrating acumen to ask the medical expert the simple question, just what is this trauma and how does it act?

California Northern District Medical Society (reported by C. J. Durand, secretary)—At the thirty-fifth semi-annual meeting of the California Northern District Medical Society, held in Sacramento on January 22, C. E. Schoff of Sacramento was elected president and C. J. Durand of Colfax was elected secretary.

The thirty-sixth semi-annual meeting of the society was held in Colfax on April 22, thirty-eight members being present. The morning session, held at the Colfax School for the Tuberculous was in the form of a clinic on artificial pneumothorax in the treatment of pulmonary tuberculosis. Robert A. Peers and his staff did some fluoroscopic work, demonstrated x-ray plates of compressed lungs and made two actual lung compressions. Luncheon was served at the Standard Oil Sanatorium, through the courtesy of Louis P. Howe, chief surgeon of the Standard Oil Company of California. The afternoon session, held at the Colfax Theater, comprised four papers. F. F. Gundrum of Sacramento spoke on "Spirillosis" and gave a clear outline of Vincent's angina, its diagnosis, divers manifestations, complications and treatment. He was followed by F. J. Conzelmann of Stockton State Hospital, whose subject was "Mental Sickness." This paper covered the subject very thoroughly, discussing diagnosis, emphasizing the need of more study in examination of the patient and taking up in detail the different phases of insanity and the psychoses. Another paper on "Psychotherapy in General Medicine" was given by V. H. Podstata of Livermore. This paper was of great interest and contained many practical details for all present. Leo P. Bell of Woodland treated the subject of "Supra-pubic Prostatectomy Under Regional Anaesthesia," illustrated with lantern slides. Each one of these papers proved of general interest to all present and provoked much timely and valuable discussion.

You who dream of the great things to come, why don't you commence? Why do you wait for the campaign, the posters, the meetings, the influential names, the backing? Why must you float on rivers of ink? Why must you start where the toilers left off? Begin!

ERRORS IN DIAGNOSIS OF ABDOMINAL CONDITIONS *

By WALTER WESSELS, M. D., Los Angeles,
(From the Department of Clinical Medicine, College Medical Evangelists.)

Progress is made in all lines, including medicine, by profiting from experience, especially from mistakes. In an active practice it is fitting to occasionally pause and survey our own work, take stock as it were; thereby anticipating future repetitions of the same mistakes. Each of us can recall many blunders, but unless these mistakes help us they are in vain.

In such a survey recently made, the disclosures have been of so much interest to me that I thought it might be of sufficient import to share a part of this experience with you.

The cases about to be reviewed are from the records of the Los Angeles General Hospital, and from my own files. Needless to say, they represent only a *few* of our mistakes.

The Stomach—Davidson says, "With the possible exception of carcinoma, there are no primary diseases of the stomach." When we think of the stomach as one of the earliest embryonic structures, and that the organ may be removed with impunity, one may indeed pause. While the above statement is too broad, still there is an element of truth in it. If we look up primary chronic gastritis in any textbook on internal medicine, we find many pages devoted to this subject; yet, excluding alcoholic gastritis, toxic gastritis, and achylia gastrica, we have rarely seen any cases of primary chronic gastritis in a practice extending over twenty years, although many cases have been referred with this diagnosis. When a study of the case is made, we usually find either ulcer, carcinoma or secondary gastritis due to anemia, cardiac, hepatic or renal diseases. In our experience, nephritis is the most frequent condition sent in with the diagnosis of chronic gastritis.

Example — A woman of 45 years, after being treated for persistent vomiting of mucus, which occurred several hours after eating, and with diaphragmatic pain (from retching), was sent in with a diagnosis of gastritis. The stomach symptoms had overshadowed everything else, as a urinalysis cleared up the true condition, and a study of the blood chemistry corroborated the diagnosis of nephritis.

Exanthemata — The exanthemata are often mistaken for acute gastritis on account of the vomiting, but as this occurs mostly in children who are under observation in the home until the true nature of the condition is disclosed, I rarely see them.

Not infrequently children have had appendecectomies performed on account of the reflex abdominal symptoms due to pneumonia or pleurisy, but occasionally the exanthemata with enanthem may present baffling symptoms.

In April, 1922, a young man of 18 years was sent to the General Hospital. He had been ailing for a few days. On the day of admission he had a slight temperature, a slight cough, abdominal pain, vomiting; diffuse abdominal tenderness, especially

* Read before the Nevada State Medical Association annual session, Reno, September, 1923.

at McBurney's, with slight rigidity; W. B. C. 14,000; urine negative. An appendecectomy was performed the same day. The pathology found was insufficient to account for all the symptoms. On the next day he developed the typical rash of measles, and the diagnosis was disclosed. The abdominal symptoms were probably due to the severe enanthem, which was aggravated by taking castor oil. Osler describes the enanthem (or rash of the mucous membrane), which appears before the external rash.

Fantus advises against the administration of castor oil in these cases because it acts as an irritant; however, had we looked for Koplik spots in this case, the operation probably would have been avoided.

Ulcer, Cholecystitis, Appendicitis — The three conditions which are most difficult in abdominal diagnosis are ulcer, cholecystitis, and appendicitis.

Even after the closest observation, I am sure that we have all made errors. Present refinements in diagnosis have not cleared up the question; experience alone will not suffice. Probably? No. Surely! Future medicine must find a way to differentiate these conditions. Personally, if I make a diagnosis of ulcer, and put the patient on frequent feedings and alkalinization, and it does not clear up, I look for some other conditions as the cause of the symptoms.

Examples — 1. A woman came in with all the symptoms of ulcer—pain, recurring at definite times after meals, with food ease, vomiting of blood, occult blood in the feces, deformed duodenal cap, and hyperperistalsis. Particularly on account of the hematemesis, a diagnosis of an ulcer was made. At the Mayo Clinic three months later gall-stones were removed. No ulcer was found.

2. Another patient had all the typical symptoms just enumerated, except hematemesis. Several gastro-intestinal studies had been made previously, and there was a diagnosis of ulcer. A gall-bladder plate, which had not been taken before, fortunately revealed shadows of calculi. Stones were removed, and the patient recovered.

3. Another patient with the typical symptoms of peptic ulcer, including duodenal cap deformity, hyperperistalsis, hyperacidity, and definitely recurring pain, we diagnosed as ulcer. He was treated for a few weeks with proper ulcer treatment, with no change in symptoms. Another x-ray study was made after giving belladonna. The appendix was found to remain filled for over eight days. An appendecectomy cleared up the symptoms.

Gastric Crises—There was quite a group of cases which had had various diagnoses. Some of them had been operated upon for gastric ulcer before we saw them, but without relief. These proved to be gastric crises of locomotor ataxia. In a few, the only other sign, except the positive spinal fluid, was the Argyl-Robertson pupil. This mistake is a rather common one and should be guarded against.

While I could continue citing other errors in which angio-neurotic edema, renal calculi, and ovarian cysts were found to be present, it would take more time than I have at my disposal.

Spider-bite—There is a group of cases, however, that might be of interest. There were four in the series during the past two years. Let me give you the history of one in detail.

A man, 42 years of age was sent to the Receiving Hospital after being sick for twelve hours. He had eaten fish for dinner the evening before, and later went to an out-of-door toilet. After straining without effect, he went back to the house and to bed. Almost immediately he noticed pain in the left groin, which became more severe, going over to the right side. In fifteen minutes the pain became intense. A doctor was called. Hypodermics which were administered did not relieve him, so he was sent to the Receiving Hospital. On admission his temperature was 101.2°, his abdomen was board-like; he was in agony, and drenched with perspiration. A diagnosis of either food-poisoning from the fish, or a possible peritonitis was made, and he was transferred to our service. When admitted, his blood count was 21,000, with a normal differential count. His breathing was rapid and forced, his face reddened; his eyelids swollen; his abdomen tense, but not tender. The admitting interne made a diagnosis of acute appendicitis. Our chest man saw him and found a few rales. This, together with the rapid, forced breathing and flushed face, convinced him that we were dealing with a beginning pneumonia. The resident physician called it ruptured gastric ulcer.

On the following morning the resident physician and I went over the case together. He found the signs enumerated, and also what looked like a small insect-bite on the glans penis. He had in mind the three other cases, so questioned the patient further, and found that he had been stung by a spider while in the out-of-door toilet.

This group of cases of spider-bite is interesting because of the severity of the symptoms produced from such slight cause, and its possibility must be in our mind, especially in the countryside, where out-of-door latrines are used.

In all of these cases the bite was on the glans penis. Whether toxic or anaphylactic, we do not know, but the vascularity of the parts is responsible for the rapid absorption and severity of the symptoms.

Recovery took place in a few days with symptomatic treatment. The spider which causes these symptoms is the Latrodectus mactans. It has a large black body, with a red spot on its belly. Its habitat is chiefly California and Texas, but it is also found in other parts of the United States. Strangely, its common name is the "black widow."

In this study, which could be extended ad infinitum, certain facts stand out.

1. The cases all had abdominal symptoms.
2. They all had wrong diagnoses.
3. The correct diagnosis was arrived at by various means—in one the x-ray was the criterion, in another the laboratory findings, in another a careful history, and again, clinical experience. X-ray in abdominal conditions has become indispensable, but we must be warned from time to time not to be too dependent on this aid. The modern tendency is to attach too much importance to laboratory results.

These findings are important. Indeed, I believe future medicine will be advanced more by laboratory research in physiology and chemistry than by any other means; still, at the present time, we must restrain ourselves from allowing the laboratory to usurp the place of clinical experience. The human body is not a living test tube.

If I were to evaluate the most important elements that these errors have taught me I would say:

1. We should be most careful in the taking of histories (everyone of us can do that), for I believe many mistakes can be avoided thereby.

2. The most important lesson is that, after all, it is the clinician, who in an unbiased way evaluates the important points wherever they appear, whether in the history, the physical examination, the laboratory findings, or in the x-ray studies, who is of the most value to his patient and to his profession.

In the words of Connor, read before the annual meeting of the Yale graduates last June: "My plea then is, for an effort on the part of all of us to resist and counteract the growing inclination to regard the use of the laboratory and instrumental aids as the chief means of diagnosis, and to give too little weight to the more laborious but more important measures of painstaking clinical observation and careful deductive reasoning."

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A SYSTEMATIC USE OF OPIUM FOLLOWING CERTAIN LAPAROTOMIES

By ASA W. COLLINS, M. D., San Francisco

Although in principle the use of opium and its derivatives after abdominal operations has been all but discarded by most modern operators, I have found it so useful as a routine measure in my own practice that I take this occasion to report my results during the past year.

The chief reason why the routine use of morphine after laparotomy has been abandoned seems to be a general agitation against its use dating from the time since the use of narcotics was restricted by the Harrison law, but the fear of its dangers is decidedly unjustified, considering my own experience. One should not forget that there are sometimes contra-indications. In very serious and critical cases, especially in patients who seem close to the lethal exitus, most physicians have a dread of a possible unfavorable result and hesitate assuming responsibility. Of course, there may be some danger of its abuse when permitted to be used on slight provocations or, which is worse, the administration of this powerful drug only when the patient is completely exhausted and fairly screaming with pain, then, and only then, does she learn for the first time its marvelous action and demand a repetition of the dose when first symptoms of the previous attack are manifest.

My method is the regular administration every four hours of a tablet, per hypodermic, containing all the alkaloids of opium, or the alkaloid in ¼ grain doses, beginning four hours after the preoperative dose has been given and repeating every four hours day and night for from three to five days after operation, whether awake or asleep.

The results of this method of treatment I will refer to later.

When we review the best text-books and the literature of recent years on this subject, we find more authors opposed to the use of opiates in the after treatment of abdominal operations than are in favor of it.

For this reason, it may be interesting first to examine the antagonistic opinions which some of them advance.

Clinton Cushing says: "The less opium a patient gets after an abdominal section the better, and much the larger proportion of my patients get no anodynes whatever. The pain from the operation gradually subsides; the patient is turned on either side from time to time to rest him; no food is allowed until peristalsis has commenced sufficiently to expel flatus from the anus, etc."

After describing their routine, Deaver and Muller maintain a very decidedly declining attitude: "If the operation is performed rapidly and if the patient is not saturated with ether, the element of shock plays but a small part as a sequela to operation. By the prompt use of such stimulants as strychnine, atropine, whisky, and camphorated oil, hypodermically, with hot water bags and the use of hot saline solution by the bowel, the patient will rapidly react. Routine use of oxygen has lessened the number of cases suffering from ether sickness (nausea)—paresis due to mild peritonitis, simple atony of the bowel or to the use of morphine which should not be given for post-operative pain." Again: "That the giving of morphine after abdominal operations is responsible for a mortality, we have no doubt."

A non-committal attitude is shown by Skene Keith: Some surgeons have been in the habit of giving a dose of opium, in some form or other, at stated times and in every case; others have limited its use to cases of distension, or so-called peritonitis. Naturally, a routine practice of this kind has not proved suitable in every case; and now the tendency is to use this drug rather too little than too much. This is perhaps as great a mistake to use too little as it is to give too often, and especially in too large doses. There is no one drug which is of greater service when given in suitable cases and with a distinct object in view; and none is capable of doing greater harm when used in a haphazard way."

H. A. Haubold says: "The administration of opiates may be stated as objectionable in principle, but necessary in a certain number of cases. The objections are that they paralyze peristalsis, which favors the formation of adhesions, they lessen secretions and excretions, of which the latter is the most important factor, and that they mask symptoms which are indicative of complications. On the other hand, arrest of peristalsis is not objectionable for twenty-four hours after invasion of the lumen of the digestive tract. Again, pain which is sufficiently severe to cause restlessness is best controlled, even if the objectionable features of the opiates have to be taken into account."

One generally recognized authority expresses his

opinion particularly with clearness. Moynihan says: "The administration of morphine after an operation is rarely necessary nowadays. More especially since the introduction of Crile's method (anoci-association). In some cases, however, especially, for example, in secondary gall-bladder cases, some relief from post-operative pain may be urgently requested. I never withhold morphine if the patient is suffering. In the old days we were all afraid of morphine, and surgery was often cruel. An injection of 1/6 or 1/4 grain of morphine on the night after the operation will give a peaceful night and the patient wakes refreshed and cheered by the repose he has had. I do not think that this amount of the drug causes any flatulent distension of the intestines; indeed, I think by relaxing a spasm of the bowel, it may aid in the expulsion of gas. It was the repeated administration of opium and morphine in the olden days that led to these drugs being discredited. Today we use them sparingly; but to the great advantage of our patients."

We have yet to hear the opinion of another generally recognized authority, Howard A. Kelly: "If the patient is tired and restless, a tepid sponge bath followed by gentle rubbing and a cup of hot chicken broth or beef tea will often take the place of a narcotic. If there is much pain after the operation, a hypodermic injection of 1/8 or 1/4 grain of morphine may be given when consciousness has fully returned, and the dose should be repeated if sleep during the first night cannot be secured without it. Milder sedatives are useless, but the morphine must not be continued longer than thirty-six to forty-eight hours. Morphine must be used with greater caution when the woman is hysterical. Indeed, it is often better to allow a hysterical woman to suffer than to use it at all. I know that the medical profession is divided on the question of using morphine after abdominal operations, some able physicians objecting strongly to its use, while not a few surgeons still venture to assert its necessity. I have no hesitation in declaring myself emphatically in favor of hypodermics of morphine during the first twenty-four hours in all cases of severe suffering, under the limitation I have just indicated."

In Kelly and Noble's Gynecology and Abdominal Surgery we read under the treatment of shock, chapter by Brown Miller: "Morphine in repeated small hypodermic injections (grain 1/8 to 1/6) is one of the best remedies we have, especially where restlessness is present."

We have seen that, although most authorities mention that morphine is at present not in such general use as was customary years ago, they are not entirely opposed to it in principle and appreciate the usefulness of it when needed.

H. J. Boldt is of the opinion: "In many instances one dose of morphine is administered soon after the operation, because it is but seldom that a patient does not complain of sufficient pain to make such treatment not only humane, but beneficial to the patient, acting far better on the heart than, under some circumstances, strychnine. I believe that strychnine is used far too extensively and indiscriminately, whereas the administration of a dose of morphine after an operation is too much dreaded by many."

Von Mikulicz says: "In case of vomiting, one had better give nothing at all; eventually hypodermically morphine 0.01-0.02 g; sometimes swallowing of pellets of ice giving relief, etc." . . . "If a remedy for pains is indicated, morphine should be given subcutaneously. Morphine given in reasonable doses does surely not harm the laparotomy patient; we are even, compared with our experience of former times, when less strict asepsis was practiced, under the impression that morphine supports the organism in overcoming a septic infection." There is much to be said in favor of morphine after any kind of and particularly an abdominal operation. "No remedy is more apt than morphine to support the organism in its final, most vehement struggle for restitution of the disturbed equilibrium" is the gist of what Prof. O. Rosenbach of Berlin says. "In small doses it can—at least as efficiently as atropine—excite peristalsis, which must be taken as a sign of recuperation of tissue tone. With correct indications and precise dosage, it is the best tonic, the most excellent means for 'reestablishment of essention work to energize the inner tone of the tissues.'"

Rosenbach says again: "We recommend morphine in the therapy of heart disease because of its effect being in many respects similar to that of digitalis; both remedies act, properly used, as tonics. Narcotics, the importance of which in cardiotherapy we estimate very highly, decrease excitability of the nervous system, without diminishing the local parenchymatous metabolism."

The value of morphine for the promotion of a patient's recovery after operation is at once evident when we consider how promptly it removes causes of sleeplessness: in the first place, pain; then excitement, worry, and all kinds of torturing sensations. It is also important to remember that sleep is essential not only as a saving factor, preserving energy, but chiefly as a producer of a period of rebuilding energy. While ordinary somnifera or sedatives merely decrease the excitability of the cerebral cortex, narcotics have the additional advantage of energizing the tissue cells for the purpose of carrying on protoplasmic reconstruction. Thus morphine is of direct assistance in the healing processes after abdominal operations, as a dynamic builder of internal energy which increases tissue tonus.

Morphine has the same properties as opium, but with less tendency to constipation. It is known as the remedy of greatest value in the treatment of peritonitis and other abdominal inflammation. To relieve the patient of pain and afford sleep after an operation, to support the organism in overcoming shock—those are the well-known qualities which have established morphine in its time-honored office which hardly any other remedy will dispute to it.

The time of absorption from an empty stomach is fifteen to twenty minutes, while its full effect is reached not before an hour. By rectum, one must allow from one and one-half to twice as long, and it requires about one-third larger doses for the same results. By hypodermic injection, the first effects are felt in from three to five minutes, the full effect

in from fifteen to thirty minutes. Morphine is eliminated in the urine. As it is excreted into the stomach, it may be reabsorbed from the lymph ducts, whereby its cumulative action is explained. Some is excreted by the liver and appears in the bile, a small portion in the perspiration.

Henry Smith of Armritsar, India, who has carefully watched the post-operative care of his cases, is an enthusiastic believer in the efficiency of opium; so much so that it is a routine treatment in his practice. He gives the tincture of opium hypodermically in comparatively large doses, preferring it to the alkaloids.

Being impressed with the great number of cases covering many years of practice during which opium had been used, I decided to try his method of treatment. My practice in the past was to give heroin or morphine when necessary to control pain; this meant when everything else had been tried first, and then only as a last resort, feeling that we were licked when we did prescribe it; that pain so severe as to demand the use of morphine should mark the uneventful recovery of the patient. This hypothesis was all wrong.

Before operation, the standing order in all hospitals is to give morphine; upon this we are agreed. During operation the patient is completely under the anesthetic, and we can assure him that he will not suffer. But what can we offer him for the next three or four days. Will surgery be robbed of its terrors while patients continue to suffer the distressing symptoms following operation? Can this be overcome? Is there any objection to the use of opium? How shall it be used?

In practically every laparotomy peristalsis is suspended for several hours, and sometimes many days, dependent upon the magnitude of the operation, time consumed, manipulation of the viscera, particularly in operations for fecal fistula, ruptured appendix, pelvic peritonitis, ruptured viscus, operations for traumatic injury of the intestine, anastomosis, etc.

We must expect a considerable amount of pain before the resumption of peristalsis. When peristalsis begins it starts locally and is signaled by pain. This collicy pain is the contraction of the circular muscular fibers of the intestine at one or more points, and produces at the particular point a temporary partial obstruction of the canal. There is no uniform peristaltic wave downward, but the wave is obstructed and we have reverse peristalsis, which means vomiting. This must be prevented and can be prevented by the use of opiates. One dose will relieve the spasm, but another dose must be given in four hours to prevent its return.

Following the severer types of laparotomies I have mentioned, I begin four hours after operation with a hypodermic of pantopon, tincture of opium, or morphine, and repeat the dose every four hours as a standing order. This is kept up from twenty-four hours to four days. A peculiar thing about the regular use of opium is that invariabily the patient begs to have it discontinued, usually objecting to the prick of the needle, and once discontinued never asks for it again; in fact, I do not advise allowing the patients to know what they are taking. The mention of opium subconsciously brings to mind the dread of habit-formation. If there is any possibility of acquiring the habit, it will be by giving the patient a demonstration of the properties of the drug. This can best be illustrated by giving a general anesthetic to a woman in labor. At first she objects to the administration of ether, even after suffering great pain; but one demonstration of the happy relief of suffering and you have a woman whose whole mind for the time is concentrated upon the ether-cone. Her cry is, "Give me some more." So with morphine.

Peristalsis will come when it will come, and purgatives given too early will not start it, but only cause more vomiting, pain, and suffering.

My personal experience of fifty cases of the severer types of laparotomies, consisting of operation for fecal fistulae, ruptured appendix, pelvic abscess, anastomosis of intestine, resection of cecum, large ventral hernia, pyloric resection, hysterectomy, etc., may be summed up briefly: In 30 per cent of the cases the bowels moved with expulsion of gas, without a physic on or before the third day; 22 per cent had some nausea after the first day. All patients had little difficulty lying on the side.

None of the cases had pain or hiccough. Not one case asked for an injection after the injections were ordered stopped. Fifty-four per cent requested that the injections be discontinued, objecting to the injection. Nearly all the cases did not know what they were getting and, feeling fairly comfortable, did not see why they should be disturbed by being pricked with a needle. Unfortunately, I did not keep a record of the percentage of cases that had to be catheterized, but feel sure that they were less than when an opiate is not given regularly. All the patients enjoyed more sleep.

The two essential requisites for a surgeon are reverence for human life and sympathy for human suffering. To say intuitively that every doctor is conscientiously striving day and night to give unselfishly the best there is in him to prolong the life of his fellow-man is obvious. But a sympathy for human suffering must be expressed, as far as the patient is concerned, in a material way when it comes to pain. Obstetricians have robbed nature of the pangs of pain. Will the surgeon, after the peaceful sleep of the operation, try to alleviate the agony of pain and train of depressing symptoms of a post-operative period? When this has been accomplished, surgery will have attained a plane far beyond the reach of its critics.

126 Post Street.

DISCUSSION

Burt S. Stevens, (909 Hyde Street, San Francisco) —I have employed morphine more or less routinely in such a large number of post-operative cases and over a period of so many years that I feel no hesitancy in agreeing with what Collins has to say. My practice, while differing slightly in minor details, practically corresponds to that of Collins, and my reasons for using it are also essentially the same.

When not contra-indicated—and I believe that it rarely is—I modify the dose according to the age and weight of the patient, but in the average adult I give morphine ¼ grain hypodermically, and my routine instruction to the nurse is "keep the patient comfortable." This ordinarily means to give the narcotic

every four hours until the acute pain and restlessness have disappeared, and seldom is it necessary to continue with the drug for more than twenty-four to thirty-six hours. It is a decided advantage to give a large enough dose to accomplish the desired effect early and to continue until such time as the patient is practically free from pain, at which time it may be abruptly withdrawn. If a patient is placed at rest mentally and pain abolished, a speedy convalescence is much more likely. Small nagging doses of the drug frequently stimulate rather than quiet and do not accomplish the desired result; consequently, one should use sufficiently large doses for the required time and then stop.

I am convinced that the intelligent use of morphine does not provoke complications; that the patient makes a much more comfortable and satisfactory convalescence; that when used as Collins has suggested there is no danger of the habit being formed, and that its use is a sensible and humane procedure.

W. Harriman Jones (131 Pine Avenue, Long Beach)—"Systematic Use of Opium Following Laparotomies" seems to imply a routine being carried out in every case, which to me seems unwise. No matter if an opiate is used following every laparotomy it should be specifically prescribed as to quantity, form, and time in each individual case after a careful consideration of the needs of that case. In my own practice I practically always give an opiate preceding operation, which in many instances is all that is required if the operation is short and the temperament of the patient permits, and rarely are more than one or two hypos necessary after operation. If pain is great enough to produce restlessness and insomnia, particularly the first post-operative night, I believe less damage is done and convalescence hastened by a reasonable use of opiates. Collins' observations on the humanity of surgery deserve consideration, and the observant, conscientious surgeon will not need to fear the reasonable use of opiates post-operatively.

H. A. L. Ryfkogel (516 Sutter Street, San Francisco)—The paper of Collins discusses a subject that greatly interests surgeons. Morphine after operations not only relieves pain, but gives the tissues the physiological rest that is so necessary to proper healing.

Patients following operations, even though in no great pain, often become very restless and any threshing about is very apt to put an undue burden on a heart already affected by disease and the strain of an anesthetic. It also tends to place undue friction and stress on recently sutured parts. Morphine, by quieting the patient, minimizes these dangers. The nervous exhaustion that follows operative procedures is largely due to the great pain suffered during and after operations. Crile has shown that pain is really felt by the cerebrum even though consciousness is abolished by a general anesthetic and degenerative changes take place in the central nervous cells as a result. Morphine should be given before an operation to lessen the amount of the general anesthetic, which also produces degeneration of the tissues, particularly those of the liver and brain.

During operations all tissues should be thoroughly blocked off from the cerebrum by an injection of local anesthetic. After the operation pain should be lessened as much as possible by safe doses of morphine. The question to be debated is "What is a safe dose of morphine?" The answer depends on the nature of the operation, the age of the patient, and his idiosyncrasy to this drug. It must be remembered that in those with the tendency to bronchitis that morphine lessens the desire to expectorate, and there is danger of the retained infected mucus producing a bronchial pneumonia. This should be controlled by deep breathing, by urging the patient to cough, by liquifying the sputum with stimulating expectorants, of which the best is probably camphorated oil in 2 cc. doses every two or three hours intramuscularly.

Doctor Collins—In closing the discussion I wish to emphasize a few facts. The action of morphine is well understood by all surgeons, possibly the best known of all drugs used in the last half-century.

It is just as important to relieve pain after an operation as during an operation. Ether, during an operation, should be used continuously and with the greatest care. Likewise I recommend the regular, continuous, or systematic use of opium (every four hours) from two to four days following certain laparotomies, with all the confidence of experience in this method of treatment, and have found no drug or method of treatment to take its place, and lastly, there is practically no contra-indication to its use.

THE CARE OF THE NEW-BORN BY THE OBSTETRICIAN *

A QUERY BY THE PEDIATRICIAN

By A. J. SCOTT, JR., M. D., Los Angeles

To ascertain the routine care of the newly born infant by the obstetrician and the hospitals in our community, a questionnaire was sent to forty-nine members of the Los Angeles Obstetrical Society and to eleven hospitals and maternity cottages of the city. Among the doctors thirty-three answered, and of the hospitals nine answered, no replies being received from the maternity cottages. The questionnaires to the doctors and the replies were as follows:

No. 1—What feeding hours do you prefer for the new-born, three or four hours?

Two hours (1); 3 hours (27); 4 hours (3).

Comment—The first 24 hours by most was given over to a 4 or 6-hour period. After the first 24 hours there was a preference for the 3-hour period, days, and 4 hours at night. Only 3 chose 4 hours all through the 24-hour period. This seems to show that most obstetricians feel that the 3-hour period, days, and 4 hours at night is productive of the best results, not only for the mother, but the child.

No. 2—Do you give a feeding between 10 p. m. and 6 a. m.?

Answers—Twenty-one feed about 2 a. m., 6 "if it is necessary," and 5 "not at all."

Comment—Is this merely a routine, or is it absolutely necessary for the welfare of the infant and mother? Does that disturbed 2 a. m. period interfere enough with the mother's rest to have any inhibitory effect on the milk production, or is it an aid? Does the infant need the extra food, especially if on the 3-hour day schedule? I think a great deal depends upon the individual infant as to whether it is gaining or not, and the general reaction on the mother's nervous system. If the infant is getting a 4-hour schedule day and night it might need the extra food, but I cannot see why it would otherwise.

No. 3—Do you give a laxative to new-borns routinely? If so, what kind? Why?

There were 27 who gave nothing, while 4 gave something, and the choice of laxatives ran as follows: A much-advertised patent medicine, castor oil and olive oil equal parts, milk of magnesia, enemas, and plain castor oil. As to why, the only answer

* Read before the Los Angeles Obstetrical Society, October 9, 1923.

given was by one who thinks "meconium causes colic." I would like to state that, from the number answering against the use, it would seem that there is no necessity, and as to meconium causing colic, this seems hardly logical, as most of the colic as such does not appear until the milk supply has come in the mother's breasts sufficiently to show up in the stools.

No. 4—What is your preference in the maternal diet until the milk comes in and while still in bed?

A variety of answers were given. The average replies were: Occasionally malted milk, but generally nothing for 12 hours, then liquids and semi-liquids.

Liquids exclusively (10); regular diet with plenty of liquids (6); no special diet (5); soft (6); very light (3). "Liquids predominate—no objection that I can see, but is it necessary to hasten milk secretion?" "After the milk comes in." Select diet (6); soft diet (6); regular diet (12). "Avoid corned beef and cabbage." "Not convinced milk is any more of a milk producer than an equal amount of other fluids." "No special diet except as indicated." "Watch for gas-producing foods like starches." This last seems to be in contra-distinction to what will be noted later on.

One man puts on a constipating diet for 5 to 6 days while there are stitches. Apparently, liberal feedings are most satisfactory.

No. 5—Do you put any restrictions on the kind of food mothers eat while nursing, viz.: avoidance of acid fruits or vegetables, etc.?

Yes (6), No (24), and the replies ran as follows: "Eliminate all heavy articles of food, highly seasoned, acid and gas-producing, as grapes, peaches, tomatoes, etc." "Certain vegetables, as cabbage; no restrictions on fruits." "Avoid certain vegetables and acid fruits." "If baby is cross and has colic, have them restrict acids." "Balanced ration. Avoid acids and highly flavored foods." "Not unless child becomes colicy." "Varies with mother and child." "Beans and onions are to be avoided." "Avoid strawberries and spices only."

This would seem to show there is no uniformity in the opinions of the different men. It would seem more logical to advise a regular diet such as the mother has been accustomed to prior to the birth of the infant. The numerous things advised against would leave a very limited supply to draw upon, and, in fact, do the opposite of what we are trying to prevent; namely, having a colicy baby. Too many of these mothers crave the very things they have been accustomed to and really need, particularly in the fruits and vegetables, and what agreed with them prior to the birth certainly ought to agree with them afterwards. Again, there is need of the coarse foods to aid in bowel evacuation, for there is the constipating effect of a too completely digested diet, with no residue. Again, acid foods are usually eliminated in entirely different forms than when ingested, and the acids are not passed through the milk. Of course, while still in bed a mother naturally does not need as much food for the first few days as when the infant is older, and when she begins to move around in bed more she requires more food.

No. 6—Do you advocate formula feedings for infants while the mother is still in bed? If so, what kind and how often?

There were, No. (21). "Yes, if necessary" (6), and "as complemental when needed" (6). The kind was either a milk and water modification or a dried milk preparation. To be commented on later.

No. 7—Do you find that formulae tend to get mothers away from breast-feedings inside of the first six weeks of the infant's life?

Yes (25). No (6). Never used (1).

This shows the opinion of the majority as to the pernicious effect of the easily flowing bottle, as compared to the harder work of suckling the maternal breast. It also shows that most of the men prefer to help the mother and keep the baby on the breast rather than to not bother and let the mother follow the advice of anyone and substitute some kind of an artificial feeding.

No. 8—Do you give the mothers a formula to take home from the hospital?

Yes (1). No (22). Only as aid (9).

Not advisable in the opinion of most.

No. 9—What is your favorite laxative for nursing mothers and why?

There were quite a number of ideas and drugs used. For example: Licorice powder (3); saline (1); agar agar (1); phenolphthalein (2); A. B. & P. pills (1); what accustomed to (1); liquid petroleum (5); milk magnesia (6); enemas routinely (1); cascara preparations (14); A. B. S. C. pills (1); castor oil if indicated (1); a patent medicine (1); a proprietary medicine (8).

All stated they wished to use something that would not affect the infant, and, as seen from the above, the mineral oil and agar preparations, as well as the cascara preparations, seem to be the most popular.

No. 10—When do you leave the baby's abdominal binder off?

Soon as possible after stump healed (10); end of first month (3); 6 to 8 weeks (9); 3 to 4 months (1); 6 months (4); 1 year (2); 2 years (2).

The majority favor early removal because there is no need for keeping the binder on after the cord has dropped off and the wound is dry. The binder will not prevent hernia of the umbilicus, and if it is on tightly enough to do any good it crowds the small abdominal contents and causes distress, not allowing expansion, and if loose enough it slides out of position and has no effect on the prevention of hernia. A good light-weight woolen knit band, which goes over the shoulders and has a tab fore and aft for the attachment of the diapers is sufficient to keep the little abdominal contents fully protected from chilling. This causes no pressure over the soft muscles, and allows of the free movement of the abdominal contents.

No. 11—Do you give any special treatment for icterus neonatorum? If so, what?

Yes (6). No (18). The treatments were: Calomel (9); castor oil (5); laxative if necessary (1); gray powder ¼ gr. twice daily (1); push fluids (6).

Icterus neonatorum is a physiological process and

needs no treatment, other than possibly giving water freely, but that is no more than what should be done in any case. True icterus is not a septic process, and if there is a septic temperature, it must be from some other cause. If there is a septic hepatitis it is not true icterus neonatorum, and calomel and castor oil are not indicated, as they may do more harm than good.

No. 12—What directions do you give mothers as to diet while nursing the infant, especially if the milk supply is scant?

This corresponds to what was answered in No. 4, and the replies were as follows: Good food (13); additional milk between meals (13); pump breasts after nursing (1); force liquids (12); force liquids with galactagogues (1); increase the starches and sugars (cereals, etc.) (15); placento-mammary extract (2); cod liver oil (1); remove cause, as worry, etc. (1); complemental feedings (1); fresh air and exercise (3).

It seems that some of the most important points have been overlooked, namely: the avoidance of worry, the need of plenty of fresh air and out-of-door exercise, and the emptying of the breasts completely at the end of the nursing period. All the complemental methods for producing increased milk supply fail if they are not attended to. The excess fluid is eliminated through the kidneys and bowels, the galactagogues are undoubtedly psychic, and as to the increase of the starches, the corn meal gruel, etc., it seems to me this fact is overlooked: breast milk is undoubtedly a secretion. It is made from the elements in the blood carried to the mammary glands, where it is manufactured. How, by increasing any one group or groups of foods, or the restricting of the use of certain foods or elements, are we going to affect the manufactured product? Toxic substances are, of course, not included. If the mother has a calm mind, avoiding worries and anxieties, good hours of rest, plenty of fresh air, sufficient exercise—but not to the point of exhaustion—plenty of cool, fresh water, good, wholesome food which she is accustomed to, and eats everything she ate prior to the birth of the child, plenty of fresh fruits and vegetables of all kinds for their essential elements—vitamins—and nurses regularly, there ought to be sufficient milk. The first 6 weeks of the infant's life is the hardest period for the mother. Then is when, if ever, she is likely to have the baby off the breast and on the bottle, and then is when she needs the wise counsel of her obstetrician as to what to eat and how to live. Too often the mothers get advice from the hospitals and nurses on leaving, and sometimes this is good and sometimes not so good, and for that reason the following questionnaire was sent to the hospitals:

HOSPITAL QUESTIONNAIRE

No. 1—What feeding schedule do you use for new-born infants, three or four hours?

Two and one-half hours (1); 3 hours (7); 4 hours (1).

The night feedings were every 4 hours. This corresponds to the doctors' replies.

No. 2—Do you use any laxative for the new-born routinely; if so, what and why?

No (9). Yes (2). On doctor's orders.

No. 3—What diet do you recommend mothers before the milk comes in, after the milk comes in, and while still in the hospital?

"Forty-eight hours liquid, next 24 hours soft, next 48 hours light, and then regular tray after fifth day." "General diet after 48 hours." "Soft, increase to regular" given by four with these modifications: "Avoid what does not agree with mothers." "Avoid meat." "Avoid rich or fried foods."

This shows some general trend in answers as the doctors' replies.

No. 4—Do you use bottle feedings as additional feeding routinely; if so, why?

No (6). Only as doctor orders (3). (Yes (1). "Only prematures receive breast milk formula, and all other infants under six pounds standard cows milk formula routinely. The gain is more uniform this way," reports one large institution.

No. 5—What kind of formula do you use as "stock formula" for new-born?

Cream and water mixtures (1); milk, water, and sugar (3); dried milk (2); doctor's orders (2).

"Usually enough pumped breast milk to supply all our needs," says one of the institutions. Why, in all of our hospitals which have large maternity services should it not be possible to have a supply of breast milk on hand? If our nurses were only trained to get all the excess milk, by stripping the breasts after baby has finished, by pumping where there is an excess amount, or by manual expression in place of pumping, a more rational and less painful measure in most instances, this would take care of those infants whose mothers have a scant supply, would care for prematures, and if there was sufficient, might even be supplied to outside cases who would pay the cost.

No. 6—Do you give mothers a formula to take home?

Answers were all against this practice unless the infant was on an exclusive formula feeding while in the hospital, excepting one charity institution, where feeding was under supervision of the district nurses.

No. 7—What kind?

All answered, "On doctor's orders."

No. 8—What directions as to future diet do you give mothers?

The general tone corresponds to the answers of the doctors' questionnaire. "Full diet." "General diet, large service cereal, one quart of milk daily." "Regular diet, avoid foods found to disagree." "Avoid acid foods. Drink plenty milk and cocoa." "Follow hospital diet." "Doctor's orders—usually liberal and full plus 2000 cc. milk daily." "No particular diet."

SUMMARY

1. Three-hour days and four-hour nights is average rule for feedings while in hospital.

2. A 2 a. m. feeding seems to be advisable in first few weeks of the infant's life.

3. Laxatives are not needed in the new-born.

4. Maternal diet until milk supply is established seems to be: soft with liquids and after milk established and while in bed, more liberal, varying with

the different men. All, however, warn against indigestible foods.

5. Most men put no restrictions on the nursing mother's diet, and this is only rational.

6. Formula feedings while in the hospital are not in favor with the majority.

7. Formulae tend to wean the baby from the mother's breast.

8. Taking formulae home from the hospital is not in favor.

9. Many different laxatives are used for mothers; all, however, with the idea of not upsetting the infant.

10. Most men leave the abdominal binder off before the end of two months; a few leave on unnecessarily long.

11. Icterus neonatorum is left alone by most all physicians.

12. For aid in stimulating scanty milk supply, there are many methods, showing that most obstetricians have their own viewpoints, and these are based more on dietetic than physiological grounds.

CONCLUSION

A little closer co-operation between obstetricians and pediatricians would work to the advantage of both for the best interest of mother and child. There are still a few old theories held which could be abandoned to the advantage of the infant. Dietetics should play a more important part in the curriculum of our medical schools, as well as schools of nursing, and more time should be spent on physiology of the mother and new-born, which would result in a better start in life for the infant.

1501 South Grand Avenue.

DISCUSSION

Frederic M. Loomis (350 Twenty-ninth Street, Oakland)—The "pernicious effect of the easily flowing bottle" does not compare, in my opinion, with the pernicious effect of a hungry baby honestly howling for food which he can't get from a mother's breast when the food isn't there. No young mother, especially with the first baby, can have a "calm mind, avoiding worries and anxieties" when her child is raising its voice to high Heaven. The sudden responsibility of finding herself in full charge of her baby very frequently disturbs the milk supply, which then "upsets" the baby, and in turn is doubly disturbing to the mother, with augmented protests from the child; and I think we should foresee this vicious circle before it occurs, and prepare our patients for it by teaching them while still in the hospital the principles of complemental feeding whenever there is any probability of the breast supply being inadequate; and we should understand that the inadequacy lies in the mother's nervous system rather than in her breasts very frequently.

The best antidote for an anxious and worried mother is a satisfied and sleeping child, and the best way to get it that I know is by the temporary use of complemental feeding, invariably using the breast, or both breasts, each time first with a definite time limit of twenty to twenty-five minutes for each nursing. I have been puzzled at the number of my babies, exclusively breast-fed, who failed to gain in the hospital, though apparently satisfied and quiet. Careful weighing, as a routine, of every baby before and after each nursing soon showed that most of these children, though apparently content, were getting a totally inadequate supply of food. Temporary complemental feeding, tiding them by their first few days at home, has solved their problem, and many have again become exclusively breast-fed, with proper gain in weight as the mother's life became more normal.

I believe, with Scott, in a four-hour schedule when the baby is above seven pounds and when that schedule is successful, but change back to three hours when necessary; in a general, complete diet for mothers without restrictions except as to foods which the mother knows from experience "disagree" with her; in the avoidance of the 2 a. m. nursing when possible—and it frequently is possible—even with the four-hour schedule; and in discarding the binder within a few days after birth. Scott's paper is useful and interesting, and should help to overcome the present wide divergence in our orders.

Langley Porter (380 Post Street, San Francisco)—Doctor Scott's interesting paper is a very definite contribution to pediatric knowledge. It emphasizes the entire lack of accepted principles, in dealing with the mothers of new-born babies.

The attitude of the obstetricians toward the diet for the nursing mother shows that many of the superstitions about foods current among the laity influence the medical profession, with a result that is certainly of no advantage to the nursing mother or to the baby.

The replies to questions about laxatives for nursing mothers, laxatives for infants, the use of the abdominal binder for the infant, and the matter of treating jaundice in the new-born, all show the same lack of uniform reasoning on the part of those replying to the questionnaire.

Scott's comments of these questions are shrewd, and should be very helpful in establishing a modern point of view and in bringing to obstetrical practice a greater rationality.

Especially interesting is his insistence that galactagogs are of very little value in the development of the milk flow, and that the most important influences are to be found in the proper management of the mother's environment, especially in the avoidance of worry, the provision of fresh air, outdoor exercise, and in the complete emptying of the breasts at regular intervals. (It may be that quite as important as any of these is the insistence that the baby shall not be allowed to nurse for a long time on breasts that are empty.)

One of Scott's most trenchant criticisms is directed against the failure on the part of the obstetrician to advise and direct the mother about the future care of the child, once the puerperium has passed.

In San Francisco, many of the obstetricians cooperate closely with pediatric specialists, several of whom have organized a service for following the infant's feeding from week to week throughout the first year. This sort of service is especially valuable to the young woman, a mother for the first time who, unfortunately, has never been taught anything about infants or about infant care. Under such a plan, skilled and friendly teachers are provided to lift the heavy burden and the terrible anxiety from the young girl who struggles ignorantly to do her best for her new-born child.

This paper of Scott's is as valuable a contribution as could possibly be made. I wish to congratulate him because he has recognized the necessity for gathering this data and because he has worked out the information in a simple and illuminating way.

G. C. H. McPheeters (Fresno)—Doctor Scott's paper upon "The Care of the New-born by the Obstetrician" is interesting to me especially, because in my particular local field I am called upon to practice both obstetrics and pediatrics.

The lack of uniform methods used by pediatricians and obstetricians in the care of the mother and her baby is well brought out by the answers which Scott received to his execllent questionnaire. This is not surprising, since obstetrics still is not considered seriously by a number of doctors, many of whom allow the nurse or attending relative to direct the care of the baby after its arrival, even to hours of nursing, bottle formulae whether needed or not, etc., etc. There are all gradations of services rendered by phy-

sicians attending obstetrical cases, from the meticulous care of the obstetrician who turns the baby over to the pediatrician at birth down to the doctor who makes none, one, or two perfunctory calls only upon the parturient mother and never looks at the baby at all. Scott has done us all a service by directing our thought along these lines.

In my practice I still adhere most commonly to the three-hour feeding schedule for breast babies during the day, and the 2 a. m. nursing until the baby is two or three months of age.

It is well for us to remember that the breast produces for the next feeding just the amount which was taken out at the last nursing. Therefore, emptying the breast after baby nurses, preferably by manual expression, is valuable in obtaining and keeping a uniform production adequate to the increasing demands of the infant. We try to have each mother do this as a routine procedure after each nursing.

Formulae should not be given for complemental feedings before the lying-in period is over, as many patients immediately improve in breast function after being up and about again. Formulae are certainly advisable in preference to undernourished babies, but the physician should be the only one permitted to advise the formulae.

Prenatal care will pay large dividends in better mothers and babies; especially will it increase the number of mothers that can nurse their babies. With this and other objects in view, we place in the hands of every mother carefully selected books on "Prenatal Care," "Infant Care," and "Child Care," together with other reliable information. This is much appreciated by every patient, particularly the young woman who expects her first baby. Even experienced mothers appreciate instructions as to the care of themselves and the baby. All physicians should teach their patients these better things, not merely limiting their obstetrical care to the narrow field of attendance at labor.

Doctor Scott (closing) — Discussions always bring up important features and emphasize them.

Loomis' comments are timely, but do not leave the complemental feedings to a nurse, unsupervised.

If necessary to give additional feedings, work out a satisfactory schedule, and when it is not needed discontinue it. Don't prescribe it and forget all about it.

Syphilitic Bursitis — John E. Lane, New Haven, Conn. (Journal A. M. A.), reports two cases. In one patient both knees were affected. The pertinent points in her history were: Her husband had syphilis seven years before. Five years before that she had an ulcerated throat, ulcerations on the arms, and headaches; two years later, she had ulcerations on the legs. The diagnosis was bilateral syphilitic prepatellar bursitis. Arsphenamin was given with some improvement at first, but later the slow healing justified the surgical advice of excision of the bursae. In the second case the right elbow was affected. The only thing in the patient's history or that of his family suggesting syphilis was the story of ulcerations. He had received a blow on the right elbow two years before. Within two or three days, a swelling began to appear on the elbow. In the course of the next few weeks it gradually grew larger until it was about half the size of an egg, when it broke through the skin and began to discharge. A diagnosis of bursitis had been made before it broke down. From that time on, other ulcerations appeared in the vicinity, some persisting for a long time, new ones appearing as some of the older ones slowly and spontaneously healed. The diagnosis was: gummatous syphilitic olecranon bursitis; multiple syphilitic gummas and fibroid subcutaneous syphilomas. The patient was placed on anti-syphilitic treatment, with immediate improvement, and the lesions were completely healed in about eight weeks.

NARCISSE JOSEPH MARTINACHE, A REMARKABLE OPHTHALMOLOGIST *

By DOUGLASS W. MONTGOMERY, M. D.,
San Francisco

Narcisse Joseph Martinache came to San Francisco, like many another, in hopes of acquiring a rapid fortune. Instead of this he lived a quiet, orderly life full of good works and kindnesses to those around him, and died leaving a good name and a modest competence.

It happened that I saw a good deal of him when I came to San Francisco in 1886. He was then over fifty years of age, and enjoyed a small but sufficient practice. He was not the kind of man to have a large one. In the first place, he was not a good propagandist; he was not at all showy and he loved to converse. It has been said that no man should be so addicted to work as to have no time to be polite, but it is remarkable how time flies during a friendly conversation. And in conversing with Marinache one picked up many things, for he was an excellent clinician, with the capacity both for seeing facts in their just proportion, and for applying the appropriate remedy. As far as seeing things was concerned, he had been trained in an excellent school, for the Parisian clinicians have always been noted for clarity of thought, the Latin lucidity joined with the tenacity of the Northern races. And as a school it is also noted for adhering to the definite study of the patient.

Before coming to San Francisco he had been chief of clinic for five years under De Wecker, probably the most famous oculist of his day, and collaborated with him on the Encyclopedia of Ophthalmology.

Martinache, however, was no mere hand workman striving to make his specialty a closed field. To illustrate: One day when coming down Mason street, between Post and Geary, I met Martinache. It is strange how an unimportant scene will fix itself in one's memory. I can recall his lineaments and figure distinctly as he came toward me. He was stockily built and rather slow and awkward-gaited; he could never have been a deft operator, although he was a careful one. He had a full beard and moustache, and he was dressed in black throughout—in a long black coat and a tall hat tipped a little back. He had a perfectly serene temper and a pleasant address devoid of self-consciousness or embarrassment, and he was very friendly. He gave the impression of solidity of character, worth and ability, but he was no Jupiter in the sense of being a cloud compeller.

He, of course, stopped to talk. I was then about twenty-eight years of age and he was over fifty. He spoke of the hypersensitiveness some people showed to the ingestion of certain foods, and more particularly of the case of a young girl who developed a pustular eruption from certain articles of diet. It was an instance of what we now recognize as anaphylaxis. I had recently returned from Europe, thoroughly imbued with the study of structural anatomy, and the then developing bacteriology, with

* Read before the Medical Society of the City and County of San Francisco, on the presentation by Dr. C. S. G. Nagel of a portrait of Dr. Martinache.

the attendant scholastic intolerance of any other branches of pathology.

As we parted my unexpressed opinion was that his observation had been incorrect, and that the patient's symptoms were due to some other cause, and not at all attributable to food. With this was probably associated the condescension of a young man towards any ideas of the elderly.

THE ACTUAL CAUTERY IN ULCER OF THE CORNEA

Martinache was the original discoverer of the use of the actual cautery in ulcer of the cornea. During his life his priority in this was disputed, in some instances acrimoniously, and very especially in medical literature by an oculist in Lyons, France. After three years this man acknowledged the priority of Martinache. Martinache would take any wire and heat it to a dull cherry-red in a spirit-lamp flame, and then draw it over the ulcer. Adolf Barkan tells me that for this purpose a strabismus hook is excellent, and, if heated to a cherry-red, the time consumed in carrying it from the flame to the patient's eye is just sufficient to allow the instrument to cool to the proper heat.

I have no doubt this discovery did Martinache a great deal of harm. Full use, to his detriment, was made by at least one of his confreres of this startling and apparently destructive procedure, and this unexpected result of a fine discovery is not without precedent in the history of medicine. It has its counterpart in the effect produced on the practice of Harvey on the announcement of the discovery of the circulation of the blood. Instead of increasing Harvey's reputation it caused a decided decrease in his practice, of which he bitterly complained.

Martinache was especially expert with the ophthalmoscope, and he had a notable case in the person of Hall McAllister. The great jurist had but one eye, which was beginning to give him trouble, presumably from its blemished brother. The findings of Martinache in this case secured a well-merited compliment from Knapp of New York, whom McAllister subsequently consulted.

In many ways Martinache had the art reduced almost to a science of impeding his material advantage. For instance, his office, 5 Kearny street, was reached by climbing two long flights of stairs, and the ceilings were high and the flights were long in those days, and there were no elevators. Mrs. Abbie Parrott, one of his most loyal patients, used to arrive panting, and would complain of his inaccessibility. "Why don't you get a more accessible office, doctor?" "Why should I, madam? You see, you come," was the Gallic response.

In the practice of his profession every medical man does his share toward helping his fellow-man as a matter of the day's work, never thinking of reward, and a strong, naturally benevolent nature with a well-trained mind, as in the case of Martinache, does more than his share. Some were grateful, others were thoughtless and a few were actively vindictive, as fearing a bill for the work done. The writer of one of the Gospels relates that Jesus cured ten lepers and one returned to thank him. In California 10 per cent is a rather high average of gratitude, even to the Deity, but it may have been different in Palestine.

But Martinache's beneficences did not end with his professional work. Louis Bazet relates that when he came to San Francisco he was urged to remain because it was a location particularly favorable for him, as knowing three languages—English, Spanish, and French. He sought Martinache's advice, who told him frankly that he would have a

NARCISSE JOSEPH MARTINACHE

"Fortunatumque laborum egregiusque animi" (Both fortunate in labors and noble of soul). Virgil, Aen. XI, 416.

long pull for it. When the resolution was taken, however, Martinache wrote out a check at the end of each month covering the deficit. This help endured for one year, at the end of which time Bazet was on his feet. It is needless to relate that Bazet has always cherished the deepest gratitude for his benefactor and friend.

Martinache was born in 1833 in the town of Hornaig (Departement du Nord), France, in what was formerly the Province of Picardie. He died December 23, 1892, in San Francisco, Calif.

The circumstances of his death are interesting to medical men. For some time before his death he had premonitory twitchings of the muscles of the left side of his face, and he resigned his position as oculist and aurist to the French Hospital in favor of Kaspar Pischel. He had been twenty years connected with this institution.

On the date above mentioned, on coming out of

his room, he suddenly pitched forward and all was over.

The autopsy showed sclerosis of the basilar artery, with a large spindle-shaped aneurism below it. The sclerosed artery was perfectly white, very thick and fibrous, and the lumen most minute. Arteriosclerosis was one of the subjects in which he was most deeply interested.

So passed away one of the most gentle of men, to enter the vast bosom of Nature, whose moods and ways it had been his greatest pleasure to study and observe.

323 Geary Street.

CARBON DIOXIDE COMBINING POWER OF BLOOD PLASMA IN PULMONARY TUBERCULOSIS *

By FRANK PORTER MILLER, M. D., Los Angeles

We are somewhat indebted to the work of McCann and Barr for their recent investigations upon respiratory metabolism, but this study does not parallel, as their carbon dioxide estimations were made entirely in terms of expired air. It might be well to reiterate a few salient facts relative to respiratory metabolism, and thereby make the scheme of reasoning a little more comprehensive. We know that in cases of advanced pulmonary tuberculosis the total pulmonary ventilation is approximately twice that of normal controls. We also know that the percentage of carbon dioxide produced and oxygen absorbed, in terms of expired air, is much reduced as compared with the normal.

It has been suggested that the increase in pulmonary ventilation was due to a reduction in the vital capacity of the tuberculous individual, but I feel that this reasoning is partially faulty, as they have not taken into consideration the para-sympathetic reflex (vagus), and also the fact that carbon dioxide in solution acts as an acid, and its effect upon the respiratory center must be accounted for. Assuming that the decrease in vital capacity is productive of increased pulmonary ventilation, we should then recall the disparities existing in vital capacities, depending upon the age period, height, and weight. Vital capacity markedly decreases after the thirty-fifth year, but there is an increase of eight cubic inches of air for each additional inch between five and six feet in height.

The increase of pulmonary ventilation will lower the percentage of carbon dioxide eliminated per unit time, but the total amount is found to be higher in the tuberculous than in the non-tuberculous controls. The amount of carbon dioxide eliminated in cc. per minute time is approximately 14 per cent greater in advanced tuberculosis than in the non-tuberculous.

Basal metabolism in tuberculosis has also been studied by Barbour, as well as McCann and Barr. Their determinations were made when the diurnal range of temperature was at its lowest, and only those cases which were extremely quiet during the test were considered basal. Basal metabolism implies minimal metabolism, and this is what is sought. For each individual case the normal metabolism is the metabolism maintained during health, and the surface area in each case was determined from the height and weight, by the "height-weight" chart of Dubois & Dubois, or, in other words, the normal heat production per square meter of body surface was taken from these tables, and this takes into account the age. As the result of their work, they concluded that the basal metabolism in tuberculous patients may be normal or very slightly above that of normal men of the same size. Thus, in thirteen cases the variation was from a minus 3 to a plus 15 per cent.

Whitney has called attention to the very severe degrees of acidosis which may occur in the terminal stages of disease of whatever sort, often sufficient, apparently, to account for the death or to add seriously to the existing intoxication. Unfortunately, in the cases examined by him there were no typical cases of advanced pulmonary tuberculosis, but since anemia, terminal infections, and cardiac decompensation commonly exhibit marked terminal acidosis, it was to be expected that a final acidosis would exist in phthisis. The numerous studies on the subject of acidosis in various diseases also omit consideration of tuberculosis, except the inclusion of isolated cases which are of no significance.

Here it might be thought that, since carbon dioxide is a waste product of the oxidation process, the best possible condition would be its complete removal; but it has been clearly shown by Haldane that a definite minimal percentage of carbon dioxide is required for the regulation of the respiratory exchange; and that when the percentage is reduced by artificial ventilation, the subject passes into apnoea, or suspension of breathing, until the amount is brought back toward normal in the lungs and tissues. The normal amount of carbon dioxide in the alveolar spaces lies between 4 and 5 per cent, and, if it rises or falls but slightly from the normal, corresponding changes take place in the respiratory rhythm and depth, which tend to restore the balance once more. It has further been shown by Henderson that excessive and prolonged ventilation of the lungs by artificial means leads by lowering of the carbon dioxide concentration to irregularity of the heart beat, and finally, if pushed, to delirium cordis and death of the animal. Short of this limit, stoppage of the positive ventilation has the effect of restoring the heart to regular rhythm. Passing in the opposite direction, and observing the effects of increasing amounts of carbon dioxide, administered in artificial mixtures containing as high, or higher, amounts of oxygen as are present in atmospheric air so as to avoid asphyxiation from deficiency of oxygen, it is found that carbon dioxide has directly poisonous effects upon the bioplasm. Thus with 12 to 15 per cent of carbon dioxide and 20 to 25 per cent of oxygen, it is found that animals become somnolent, the urine will contain glucose, while with 20 to 25 per cent of carbon dioxide, even in presence of excess of oxygen, death rapidly occurs. The same effects are seen upon isolated tissues. Thus Waller has shown that the first effect of minimal traces of carbon dioxide is to increase the excitability of

* Read before the Sixty-ninth Regular Semi-annual Convention of the Southern California Medical Society, held in Los Angeles, Calif., November 3, 1923.

nerves, while larger doses diminish excitability, and finally all excitability disappears. Similar results have also been found in unicellular organisms.

Our interest was first aroused in the carbon dioxide determinations, because of the paucity of the literature and also the diversity of opinion as regards acidosis in this particular disease. In discussing this phase of tuberculosis, a number of us have been offenders, and have discussed this from the positive phase alone, making our deductions largely from clinical observation and have not sought confirmation through the most approved laboratory methods.

In this series of cases which we examined, we grouped them into five classes, all being placed upon a fifteen-hour fast.

1. Far advanced fibro-ulcerative-caseous type of tuberculosis with excavation. A number of this class were of the acute pneumonic type with a diurnal variation of temperature from 97.6 degrees to 103 degrees. All of this first group were confined strictly to bed, and the only exercise permissible was toilet exercise. By minimizing all forms of physical exertion, we lessen the carbonic and lactic acids; also the metabolites which escape into the blood stream during exercise.

2. Moderately advanced type. A few in this group were up as much as three hours per day, but the remaining portion of the time was spent strictly in bed. Many of these had temperature.

3. Early cases. This group was also confined to bed.

4. Ambulatory type. In this group we included one of each of the above types. At this time we became curious to ascertain the carbon dioxide findings under working conditions, so the ambulant cases were allowed their regular breakfast, and the blood withdrawn three and one-half hours after ingestion of food. We might add that these cases were ambulatory through sheer lack of finance and this was not the treatment of predilection, but was their only alternative. Seven days following the test they were placed upon the usual fifteen-hour fast and a recheck made.

5. This included a series of three normals (nurses) all upon exercise, with the usual fast.

The method of Van Slyke was used in our determinations, and we followed the precautions outlined by him. Ten cc. of blood was withdrawn from the median vein at the elbow, placed in a centrifuge tube containing potassium oxalate and covered with liquid petrolatum. The blood was then centrifuged, and the carbon dioxide combining power of blood plasma was estimated in from three to six hours. Before each individual determination was made, the apparatus was washed with a solution of ammonium hydroxide which contained barium hydroxide, as this will absorb any excess of carbon dioxide. Furthermore, a few drops of a solution of phenothalein was added so as to prove our alkalinity. We attempted to be very meticulous in the whole procedure, and attention to detail made it a time-consuming process.

Forty-one determinations were made upon thirty-six different individuals. Thirty-three of these were patients and three were nurses, which were used as controls.

In the far advanced cases, eighteen determinations were made, with an average carbon dioxide range of 61.3. Moderately advanced group with thirteen cases showed a general average of 64.4. Early cases, of which there were four, produced an average of 57.6. Ambulatory cases, of which there were four, showed 63.4 as an average. Our average for controls was 66.3 or very slightly above the determinations made for patients. The carbon dioxide findings and their relation to temperature of 100 degrees Fahrenheit, or above, for six cases produced an average of 63.5. In twenty-six cases below 100 degrees Fahrenheit, the average was 61.7. In the ambulatory cases, no appreciable difference was noted in the finding, with the usual breakfast or upon the fast.

From the foregoing results of our study, no depletion of the blood alkali was evident, and we failed to find any evidence of acidosis, even in those cases fast approaching exitus. Two of our cases were examined fourteen to eighteen days prior to death, and in each case the determinations did not even approach the lower limits of normal. In all these cases the urine was examined for total acidity, and there was usually an increase of 50 to 100 per cent above normal. Of course, an acid urine does not imply an acidosis. We also examined for urochromogen and diazo substances, and the continued presence of these usually bespoke a bad prognosis. When an acute infection of any nature is superimposed upon these cases, the urochromogen and diazo substances would appear, but only during the course of infection.

Even though we failed to find an increase of acid radicles in the blood stream, the increased acidity of the urine, plus a 14 per cent increase of carbon dioxide in expired air, makes us again plead for use of alkalies in the treatment. The introduction of alkali facilitates the interchange of gases, by giving to the blood an excess of buffer substances, and our clinical experience certainly justifies its continuance.

A study of the gaseous exchange, which is of such vital importance to cellular life, will illustrate this point. We find the blood corpuscles contain carbon dioxide and carbonic acid in solution, as phosphates, carbonates, or bicarbonates of sodium or potassium, or as methemoglobin, and convey these substances to the excretory organs of the body. Remembering the diffusibility of gases, and since the tension of oxygen in air is greater than that of blood, and the tension of the carbon dioxide in blood is higher than the outside air, the exchange can readily take place. Naturally, the oxygen of the air passes through the lungs into the hemoglobin, in exchange for carbon dioxide and carbonic acid. When this occurs, the alkalies are liberated into the blood and again assume the function of combining with carbonic acid affinities. By the introduction of "buffer substances," through the means of alkalies, we prevent even a moderate depletion.

Shortly after we began this study, Hachen published his results upon alkali reserve, and I am happy to state that our results coincide, especially upon the essentials, though differing somewhat in detail. His cases were selected from a series of 213 patients, showing every type of lesion, with the far-advanced type predominating. He found a moderate depletion in the blood alkali in advanced cases, if there was an accentuation of the process. He also thought

there was a drop in alkali reserve a few days preceding death, and also those cases with a temperature above 100 degrees Fahrenheit showed a slight decrease. He concluded that there was a moderate depletion of alkali in the blood, but at no time approaching an acidosis. In our own determinations we failed to note a diminution in alkali reserve in cases with temperature; those approaching death; or in advanced cases with increased activity. The discrepancy in results may have been due to the fact that he failed to "fast" his patients, or if they were placed upon the fast, no mention was made of same.

One of the outstanding features of this study is the ability of the body to maintain its equilibrium, even though the mechanism is impaired through the dissolution which is in progress. It is well to recall the delicate and lightly balanced labile equilibrium existing between the colloids of the cell protoplasm and the osmotic pressures of the inorganic ions and other crystalloid constituents. Because of the loose union which binds the various constituents of the bioplasm, a change in the osmotic pressure will cause a dropping of one of the components, and it is this component which is most needed to aid in the compensation process. The process of compensation is also aided by the longevity of the disease, which allows the adjustment. I wish to state, in closing, that this work was made possible through the splendid co-operation and many helpful suggestions of M. C. Terry.

CHART I

Carbon Dioxide Determinations in Forty-one Cases

Clinical condition	1	2	3	4	5
Number of determinations	18	13	4	4	3
Carbon dioxide range	49.6-68.1	57.8-73.8	53.3-63.6	59.7-69	61.6-69
Average	61.3	64.4	57.6	63.4	66.3

Normal findings, 53-78 mg. per 100 cc. of blood plasma.

CHART II

Carbon Dioxide Findings and Its Relation to Temperature

	100° F. or more	Below 100° F.
Number of determinations	6	26
Carbon dioxide range	57.9-67.3	49.6-73.8
Carbon dioxide average	63.5	61.7

CHART III

	1	2	3	4
Amb. cases with breakfast	63.4	68.2	57.8	59.8
Amb. cases upon fast	61.6	69.0	63.4	59.7

Title Insurance Building.

DISCUSSION

P. J. Hanzlik and F. De Eds (Stanford Medical School, San Francisco) — The discussion of Miller's paper requested of us by the editor, we desire to limit to the feature of alkali therapy. After making determinations of the carbon dioxide combining power of blood plasma in cases of pulmonary tuberculosis, Miller concludes that no depletion of the blood alkali was evident and that there was failure to find any evidence of acidosis. However, inspection of his data on the carbon dioxide combining power of the plasma indicates a deviation from the normal values in the direction of acidity. It is our opinion that these deviations are of sufficient magnitude to indicate a definite tendency to acidosis, and if electrometric or colorimetric measurement of the pH of the blood had been made at the same time, a shift toward acidity might have confirmed this tendency.

The paper points out further that an increase in acidity of 50 to 100 per cent occurred in the urine, but fails to attach importance to this observation. Contrary to the author's conclusion, the urinary changes, we believe, harmonize with the data on blood, and indicate a depletion of alkali in the body and a tendency toward acidosis.

The statement is made that no increase of acid radicles was found in the blood stream, but it is not clear whether or not this refers to an absence of lactic acid and acid phosphate. These acids may be increased when the CO_2 is decreased. It cannot be said definitely whether the tendency to acidosis indicated by the blood data is of sufficient magnitude to be of pathological importance, since the problem of small deviations from normal is just being investigated and their significance is not fully understood, but it is likely that they have a greater meaning than has been heretofore attached to them, especially when it is borne in mind that small differences in the negative exponential values used for expressing pH really mean large differences in hydrogen ion concentration.

With respect to the information concerning the manner in which the blood corpuscles carry carbon dioxide, we disagree with the author's statement that blood corpuscles carry the carbon dioxide as phosphates or as methemoglobin. This is not in accordance with the teachings of physiology. We also disagree with the author's opinion regarding the ability of the body to maintain its neutrality equilibrium. In our opinion, the limits within which equilibrium is maintained are not so narrow as has been believed to be the case. This opinion is sustained by results that have been obtained in our laboratory in experiments on the effects of intravenous injections of various agents on the composition of blood of dogs, by the results of Barr of New York on patients, and of Miss Denis of New Orleans on animals.

In conclusion, we would say that Miller's work points to a moderate though definite tendency toward acidosis in the blood stream, and that there is, therefore, a rational basis for the administration of alkali; but the ultimate beneficial effects, if any, of such therapy in the treatment of a condition like tuberculosis may only be conjectured. Presumably, the treatment is intended to give temporary and symptomatic relief.

F. M. Pottenger (Monrovia) — I have been using alkalies in the treatment of active advanced tuberculosis for several years. Miller has also been carrying out the same principle in his own practice. It was the favorable clinical effects which we had noticed in active tuberculosis that suggested the laboratory research here reported, so the conclusions which Miller drew from his laboratory investigation came as a great surprise to us.

For several years we have been using bicarbonate of soda for the relief of such symptoms as nervousness, insomnia, digestive disturbance, loss of appetite, malaise and general weakness, as found in a large proportion of cases of advanced active tuberculosis. A certain amount of relief, varying in different patients, has almost invariably occurred. If there is no acidosis, as is suggested by the interpretation of the laboratory experiments conducted by Miller, it certainly is due to the marked compensatory powers possessed by the physiologic mechanism of the body. The fact that there was no increase in the CO_2 of the blood, as shown by the experiments, was very much opposed to what was anticipated when the experiments were started. The increase in the output of acids in the urine was the same as we had observed previously. Even though no acidosis is shown by Miller's experiments, this increase in the urinary acid output of itself is evidence that there is an enormous increase in the production of acids in the body. From this it seems rational to conclude that there must be a marked drawing upon the alkali reserve of the body.

This paper supports a rule which should always be found in medicine, and that is, where laboratory opinion differs from clinical experience it is better to follow clinical experience.

Doctor Miller (closing) — Considering the present state of our knowledge in regard to blood chemistry, I made the only plausible deduction that I thought the findings would justify. I must admit that the absence of acidosis in far-advanced tuberculosis came as a distinct surprise. I am in hopes, as we delve further into this subject, that a deviation toward the side of acidity may later be interpreted as an acidosis, and confirm the suspicions of Hanzlik.

BONE TUMORS

By HENRY SNURE, M. D., Los Angeles

From time to time we have cases of bone tumor referred to us with a diagnosis of rheumatism or neuritis. As this seems to be a common error, it might be well to briefly consider the x-ray diagnosis of these tumors.

The best method of study, and the one most widely adopted, seems to be that of Baetger and Waters. They classify tumors according to four cardinal points and several laws of probabilities. The four cardinal points are: Origin of tumor; the presence or absence of bone production; the condition of the cortex of the bone; invasion. The law of probabilities relates to sex, age, and the particular bone involved. It is not necessary to answer all these points. To make a diagnosis only two points are often sufficient.

In regard to the first point, that of origin: By origin is meant whether the tumor arises in the medullary canal or in the cortex. All tumors of bone are either primary or metastatic; therefore, if we can prove that a tumor arises in the cortex we can rule out carcinoma, as there are no epithelial cells normally in bone tissue, and such cells must gain admission through the nutrient artery or the accompanying lymph vessels. Sarcoma being of connective tissue, origin can be either primary or metastatic. Enchondroma and cysts are medullary in origin, but have other diagnostic points. We now consider the second cardinal point, that of bone formation. If we can prove that bone is being produced, we can immediately rule out carcinoma, round cell, spindle cell, and giant cell sarcoma, as these tumors are not bone producers, and this in turn limits us to the bone producers, namely, osteoma, osteochondroma, periosteal sarcoma, osteosarcoma, and ossifying hematoma. Traumatic and progressive myositis ossificans can also be mentioned here. Next we consider the third point concerning the condition of the cortex. We determine whether the cortex is present or absent, and if present if it is expanded in a spherical or longitudinal manner.

Malignant tumors grow in a spherical shape and sweep through the cortex so rapidly that it is destroyed, or if a small bit remains it is not expanded. There is one exception to this rule and that is, the giant cell sarcoma, which grows in a spherical manner, but does not destroy the cortex, only thinning it out, and is definitely limited to the medullary canal. The cells are so large it cannot metastasize. The benign tumors follow the path of least resistance and extend up and down the medullary canal and slowly expand it in a spindle-shaped manner, the cortex being pushed out and thinned. We must also determine whether the tumor springs from the cortex or the periosteum; from either the character of the bone production must be noted. As a general rule, in benign conditions, the bone is laid down parallel to the shaft and in malignant conditions perpendicular to the shaft. The fourth cardinal point is that of invasion; if this can be demonstrated, it means malignancy and is usually all the clinician or surgeon wants to know.

If there has been surgical intervention before making the x-ray film, it is often impossible to make a diagnosis. By the law of probabilities is meant what is most frequently found when the age and sex of the patient are taken into consideration with the particular bone involved. Statistics show us that carcinoma of the breast and pelvic organs are most common in the female and those of breast origin metastasize in the following order of frequency: First the ribs, then dorsal spine, lumbar spine, ilia, femur, especially the greater trochanter, skull and humerus. Rarely does it metastasize below the knee or elbow. Tumors of the pelvic organs usually metastasize to the lumbar spine. In the male the most common tumors are those of the tongue and lip and of the genito-urinary organs. Those arising in the tongue and lip extend directly to the mandible, if at all. Those of the genito-urinary tract, particularly of prostatic origin, cause metastasis in the lumbar spine and the pelvic bones. In regard to age, under thirty years most likely to be sarcoma; above thirty, either sarcoma or carcinoma. The particular bone involved does not help much in sarcoma, as it may be either primary or metastatic. However, sarcomas are commonly found at the end of the bones and carcinomas in the middle of the shaft.

The chief point to bear in mind is, not to make a diagnosis because the film resembles one you have seen before, but to work it out along the definite lines of known x-ray pathology.

1501 South Figueroa Street.

DISCUSSION

James B. Bullitt (San Jose)—The statement by Snure that "if we can prove that bone is being produced we can immediately rule out carcinoma, round cell, spindle cell and giant cell sarcoma, as these tumors are not bone producers," is correct insofar as round cell tumors are concerned, as all round cell growths of bone have origin from bone-marrow cells, and should be sharply separated from tumors arising from bone cells. On the other hand, spindle cell tumors are the usual form of periosteal growths, which, as the author states, are typical bone producers.

In regard to bone production, as the author states, in benign conditions the new bone is laid parallel to the shaft, and in malignant conditions (notably periosteal sarcoma) perpendicular to the shaft. To this statement should be added the single exception that in syphilitic periostitis the new bone is frequently laid down at right angles to the cortex, the strands interlacing at their extremities to form a lacework pattern, this interlacing giving the clue to the differentiation from periosteal sarcoma.

In regard to osteosarcoma being a bone producer: In the more malignant rapidly growing type there may be little new bone formation, but rapid destruction of shaft, while in the slow-growing types there may be massive production of bone and much less destruction of shaft (ossifying sarcoma).

The discussion of bone tumors should embrace a few emphatic words as to the importance of differentiating the benign bone cysts from the malignant growths. There is good reason to believe that many limbs have been needlessly sacrificed because of failure to make this differentiation. In this connection it is interesting to note that review of cases of cure of sarcoma by amputation by Bloodgood has brought forth the conclusion that some of these cases, probably many, were not sarcoma at all, but unhealed bone cysts mistakenly diagnosed sarcoma.

The great majority of bone cysts, or osteitis fibrosa, give evidence of their presence before eigh-

teen years of age, usually earlier, by localized swelling, pain or limp, sometimes by pathological fracture as the first symptom. Bone cysts untreated may reach huge dimensions.

Bloodgood is of the opinion that in central lesions of the bone in which the bony shell is intact and in which there may or may not be recent fracture, the differential diagnosis between the various possible central pathological lesions cannot be made by the x-ray alone. Several points, however, will help in making the differentiation. If the expanded cortex has been broken through, central sarcoma is to be considered. If the epiphysis is involved, giant cell sarcoma is probable, pathological fracture being rare; or epiphysial involvement may mean sarcoma. New periosteal bone would indicate osteomyelitis or periosteal sarcoma. In central giant cell tumor, sarcoma, chondroma, myxoma, and in the bone cyst, there is never evidence in the x-ray of new periosteal bone.

Chondroma and myxoma cannot be recognized by the x-ray alone, and from these the greatest difficulty will be had in differentiating bone cyst.

W. Edward Chamberlain (Stanford University Hospital, San Francisco)—Doctor Snure states that if we can prove that bone is being produced we can immediately rule out carcinoma. It is necessary to bear in mind a very striking exception to this rule. In addition to the more common variety of metastatic carcinoma in bone, in which the neoplasm produces characteristic destructive changes (osteoclastic type), there is a group of cases in which the neoplasm produces a remarkable laying down of dense bone salts (the osteoplastic type of metastatic carcinoma). It is our present understanding that the difference between the two types is entirely explained by a difference in rate of growth. In other words, the bone reacts differently to the very slow-growing neoplasm from what it does to the more rapid types.

The accompanying plate shows another essential feature of these osteoplastic cases. There may be increase in dimensions as well as in density of the affected bones. The radiographic appearance frequently resembles that of Paget's disease of the bone.

In our experience the most frequent site of the primary cancer in these osteoplastic types has been in the prostate.

Doctor Snure (closing)—I wish to add that the rules given in this paper are not 100 per cent positive, but are true in at least 90 per cent of the cases. As Bullitt states, the spindle cell tumor of the periosteal sarcoma usually produces bone and for this reason is classified as a bone producer. The spindle cell tumors referred to in the classification are those in which there is no bone production. Mallory lists the following tumors as those having spindle cells: Fibrosarcoma, chondrosarcoma, osteosarcoma, melanoma, leiomyoma, glioma, rhabdomyoma, hemangioendothelioma and neuroblastoma. I am glad that Bloodgood's opinion of benign tumors was mentioned. He feels that rarely do we have malignant tumors of central origin in the upper third of the femur under fourteen years of age. He advises the following treatment: Crush benign cysts, curette giant cell tumors, and use the cautery for the myeloma and chondroma.

Chamberlain's remarks are important. The metastasis from prostatic malignancy is the most common in the male and often gives the clinical symptoms of arthritis and osteomyelitis. I have a case in which the ilium was incised and drained; staphylococci were found in cultures from this area. The x-ray findings and microscopic tissue sections showed the condition to be metastasis from a malignant prostatic tumor.

A Caution to Members — Some of our members have called our attention to an advertisement from one I. W. Long of Columbus, Ohio, offering certain courses to doctors under certain conditions, by "D. V. Ireland, M. D." of Columbus, Ohio. Ireland proposes to be in California in December. Before subscribing the $100 fee for this course, we suggest that you read page 1951, Journal of the American Medical Association of December 2, 1922. Among other things, this article says: "I. W. Long seems to make a business of promoting the activities of those members of the medical profession who have sensational or bizarre theories to exploit and who wish to commercialize these theories. Long also seems to act as an agent for the sale of such devices and publications as may be necessary to the proper practice of the particular brand of therapy that is being exploited. Long has acted as publicity agent for courses in 'Electrotherapy' by C. L. Ireland, in 'Diseases of the Rectum' by D. V. Ireland, in 'Zone Therapy' by W. H. Fitzgerald, in 'Bio-Dynamo-Chromatic Diagnosis' by George Starr White, in 'Spondylotherapy' by Albert Abrams, etc. He has also sold 'abdominal supporters,' books on osteopathy, devices for performing stunts in 'Zone Therapy,' a chart advertised as 'A Key to the Practice of Osteopathy, Chiropractic, Massage and all Drugless Methods," and many other things. According to our records, D. V. Ireland was born in 1855 and was graduated by a homeopathic school in 1881—forty-one years ago. He seems to have practiced exclusively in Ohio and to have stayed but a few years in each town. The medical directories' record: 1886, Mansfield, Ohio; 1890, Xenia, Ohio; 1893, Fredericktown, Ohio; 1896, Mt. Sterling, Ohio; 1900, London, Ohio; 1902, Dayton, Ohio; 1906, London, Ohio; 1908, Columbus, Ohio; 1910, London, Ohio; 1914 Chillicothe, Ohio; 1916, Wilmington, Ohio; 1918, Columbus, Ohio. A study of the medical literature of importance for many years past fails to show that D. V. Ireland has published anything. He is not, and never has been, so far as our records show, a member of his local society." If more of our members would take the trouble to refer all their mail about which there may be any question to the Secretary of the California Medical Association, they might help the cause of better medicine, and even sometimes save money.

Our present social order, with all its defects, represents the best that human beings have been able to work out for themselves. "Before any man sets himself up as a professional critic of it," says Bruce Barton in a well-named "Common-sense" editorial (Red Book Magazine), "I want to ask him four simple questions:

1. Have you a family and are you supporting it? If not, don't pick on me. I have, and am.

2. Have you engaged in some gainful occupation and shared the problems and worries of the employers you are so ready to condemn.

3. Are you tolerant and fair-minded toward those who disagree with you?

4. Do you pay your bills?"

EDITORIALS

THE CALIFORNIA MEDICAL ASSOCIATION

Editorial Notes About the Fifty-third Annual Session, Held in Los Angeles, May 11 to 15, 1924

LOS ANGELES

For the first time in a number of years the annual session of the California Medical Association was held in Los Angeles, the metropolis of Western America. The session was by all odds and in every important sense the largest and most successful in the history of the association. Much of the success and very much of the fine, happy, fraternal spirit that pervaded the gathering was due to the attractive setting, and many comforts and pleasures showered upon us by a great city acting as hostess. We doubt very much if there is anywhere another city of a million inhabitants where so much is done for invited guests. Surely, there is no other where the climate in May is so perfect that one is as unconscious of it as he is of a well-fitting and much-worn suit of clothes; where "taps" sung by mocking birds and perfume from tropical flowers and filtered moonlight soothes us to peaceful sleep; and where "reveille" is sounded by meadow larks calling us to another day's work.

The Honorable George E. Cryer, mayor of the city, welcomed our association as guests of the city in a public address; friendly newspapers carried the mayor's message to all the citizens, and thereafter we were made to feel the welcome wherever we were and whomsoever we came in contact with.

The Biltmore Hotel not only placed at our disposal their unusual facilities for housing a convention, but their officials and employes were courteous and tireless in efforts to please.

THE PRESS AND PUBLICITY

Many favorable comments were heard on every hand commending the generous quantity and the fine, constructive, informative quality of publicity about the doings of the convention. This was brought about by the co-operation of the great news distributing services; by the generous attitude of the editors of the metropolitan press, not only in providing space and editorials, but by assigning experienced staff writers to cover the convention.

The tireless and effective work of Mr. Celestine J. Sullivan as chairman of the publicity of the session was of the greatest value in collecting, assembling and interpreting the news and in assisting the staff writers in its distribution. The chairman, with his office assistants, had been very busy for more than two months collecting advanced copies of papers and abstracts and getting them into shape for the press. Two editors and several reporters told this writer that the material was presented to them in better and in a more attractive manner than at any previous convention, medical or otherwise.

OUR HOSTS

The Los Angeles County Medical Association, through its committee of arrangements and various special committees, provided a remarkable number of unusually attractive social features, and successfully co-ordinated the many scientific sections.

The *Central Committee of Arrangements* was made up of William H. Kiger, chairman; Harlan Shoemaker, W. T. McArthur, George H. Kress, Donald Frick, William Duffield, Wayland Morrison.

Other committees were:

Golf—Donald Frick, chairman; Guy Cochran, Stanley Granger, Lewis B. Morton, Roy Thomas, W. H. Kiger.

Finance — Wayland Morrison, chairman; C. G. Toland, Lyle G. McNeile.

Entertainment — George H. Kress, chairman; John V. Barrow, W. W. Beckett, G. Bjorkman, William B. Bowman, J. M. Brown, F. K. Collins, William Duffield, F. C. Ferry, Trusten M. Hart, Maurice Kahn, Carl Kurtz, Percy T. Magan, Harry W. Martin, F. C. E. Mattison, H. G. McNeil, E. C. Moore, P. Newmark, E. A. Newton, H. E. Southworth, F. A. Speik, C. P. Thomas, H. M. Voorhees, N. N. Wood.

Hostesses — Eleanor Seymour, chairman; Addie B. Allen, Helen O. Anderson, Venturia C. Armstrong, Hannah Beatty, Laura B. Bennett, Mona E. Bettin, Marietta Bewley, Margaret Bigby, Lorena M. Breed, Blanche C. Brown, Charlotte M. Brown, Mary Hess Brown, Annie S. Bullock, Grace W. Cahoon, Katherine M. Close, Belle Wood Comstock, Elmina F. Cook, Mary E. Dennis, Nannie C. Dunsmoor, Lula T. Ellis, Alice Barker Ellsworth, Margaret Wilson Fate, Kate Wild Glass, Etta Gray, Mary E. Hagadorn, Nattie H. Thurston, Margaret Farr-Hara, Helena A. Hunt, Josephine Jackson, Etta C. Jeancon, Cora W. Jones, Florence Keller, Mila J. Kinney, Anna B. Lefler, Evalyn F. McNealy, Olga McNeile, Caroline McQ. Leete, Julia T. Metcalf, Lillian Mitchell, Margaret M. Morris, Marcis A. Patrick, Josephine Platt, Harriet G. Probasco, Ruth Purcell, Cecelia Reiche, Louise M. Richter, Julia Riddle, J. Margaret Roberts, Elizabeth Saphro, Gertrude C. Seabolt, Gladys P. Shadovitch, Charline Smith, Lillian Ray-Titcomb, Elsa H. Van Soest, Louise Wagner, Gertrude Wolferman, Anna Hohanshelt.

Section Committees—There was a special committee to look after the general sessions and each of the fourteen sections of the association. These committees were:

General Sessions—W. H. Gilbert, W. L. Huggins.

General Surgery — A. B. Cooke, Elliot Alden, C. T. Sturgeon.

Radiology — O. R. Stafford, H. H. Heylmun, William Costolow.

Obstetrics—Willard Fox, H. M. Rooney, John Vruwink.

Dermatology, Syphilology — Kendall P. Frost, Samuel Ayers, H. P. Jacobson.

Eye, Ear, Nose, and Throat — Simon Jesberg, R. W. Reynolds, H. S. Muckelston.

Pediatrics—A. J. Scott, Montague Cleeves, William Happ.

Urology—A. R. Rogers, Anders Peterson, W. B. Parker.

Orthopedics—John Dunlop, Alfred E. Gallant, William Arthur Clark.

Pathology — F. M. Pottenger, Guy Cochran, R. B. Hill.

Internal Medicine—Stanley Boller, H. O. Bames, Arnold Scholz.

Industrial Medicine—Philip Stephens, Louis Josephs.

Neuropsychiatry — George G. Hunter, Martin G. Carter.

Anesthesiology — Eleanor Seymour, W. W. Hutchinson, Edwin F. Boyd, Donald E. Baxter.

Public Health League — W. H. Kiger, E. C. Moore, Harlan Shoemaker.

SOCIAL FUNCTIONS

These functions were of such great variety and so successfully conducted that the convention had hardly gotten well started before they seemed to blend into a charming social atmosphere, rarely, if ever, equaled at previous sessions.

The outstanding social gathering was the reception and dinner dance held in the beautiful ballroom of the Biltmore, in honor of President T. C. Edwards and President-Elect Granville MacGowan. More than one thousand members and their families and guests attended this charming function, which did much to cement the bonds of brotherly love that sometimes grow strained in the storm and stress of every-day life.

THE GENERAL SESSIONS

If further proof of the value of devoting the mornings of our annual meetings to general sessions and the afternoons to section meetings, started three years ago, were needed, surely that proof was supplied in the remarkable success of the recent program.

At the first of these general sessions, and after an invocation by Bishop John J. Cantwell, the Honorable George E. Cryer, mayor of Los Angeles, delivered a stirring address of welcome. The annual addresses of the president and president-elect of the association were presented, as were also the reports of the council, general counsel, secretary and editor.

The second general session, as is customary, was a public meeting under the auspices of the League for the Conservation of Public Health, with the president of the League, Dudley Smith, presiding. In addition to the League president's address, the program included addresses by Hon. C. C. Young, Lieutenant-Governor of California; Ray Lyman Wilbur, president of the American Medical Association; Mariana Bertola, chairman of Child Welfare of California Federation of Women's Clubs, and W. E. Musgrave.

The third general session was addressed by Judge Paul D. Burke of Los Angeles, Paul G. Woolley of Detroit, and Alfred Decastello, Vienna.

All of these meetings drew unusually large audiences and many critical observers studying effects from the side lines considered the general sessions the most valuable feature of the altogether important meetings.

SECTION MEETINGS

All of the fifteen sections of the association held interesting and largely attended meetings. The attendance at the sections was so unusually large that more spacious quarters had to be found for some of them. The story of the section meetings will be told as the officers' reports come in.

EXHIBITS

Both the commercial and scientific exhibits were constantly crowded with visitors. Both exhibitors and visitors expressed themselves as well pleased with the results of the meetings.

OTHER ACTIVITIES

The story of the work of the Council; House of Delegates; the meeting of officers of county medical societies, and other special features will be told in the columns of CALIFORNIA AND WESTERN MEDICINE in this and subsequent numbers.

THAT MUCK-RAKING "SURVEY" OF THE HEALTH AGENCIES OF SAN FRANCISCO

The hypercritical, muck-raking, incomplete, inaccurate, in part untruthful, "Survey" report of some 150 printed pages, made by Haven Emerson and Anna C. Phillips, ostensibly for the Council of Social and Health Agencies and Community Chest authorities, is out.

It appears to be typically Emersonian, in that it has already and justly invoked the same sort of resentment from the same groups of service-loving and service-giving citizens and organizations that some of his other "surveys" have called forth.

A reply to this "survey" is already in course of preparation. It will be published in installments in both CALIFORNIA AND WESTERN MEDICINE and in Better Health, and when complete, will be issued in permanent form. This reply will analyze the vicious, exaggerated and, in part, untruthful attack upon the medical profession of California as a whole; our two medical schools; the health authorities; the hospitals; the French and the German communities; the Sisters of the Catholic Church, and all others.

The "surveyors'" invidious comparisons with other cities will be accurately analyzed, and the motives behind the survey will receive adequate attention.

The alleged constructive part of the report will be explained, with particular attention to that part of it whereby the Community Chest is urged to become a superdictator in the *administration* of all health functions of the community, instead of a legitimate collecting and allocating body handling public trust funds as there should be. There appears good reason to believe that the Community Chest will refuse its indorsement of many of the statements and recommendations of these imported surveyors, and will rely more upon the opinions of our own physicians and hospital authorities. The attempts to force the hospitals of the city to become contributing tails to certain so-called national associations as a constructive (?) movement, and the drastic criticism of the Council on Medical Education and Hospitals of the A. M. A., will be explained. The reasons why the "surveyors" ignored the medical and hospital organizations of the state

after their many years of constructive work ought to be interesting reading.

The definite injury that even the preliminary report of this "survey" caused was reflected in the difficulties connected with raising the budget of the last Community Chest drive. The complete report will further injure the development of an otherwise praiseworthy institution calculated to serve well, provided it stays out of the field of the *administration* of its funds, either by conducting services itself or utilizing arbitrary and dictatorial policies over the hospitals, organizations, and persons whose function is to serve.

The thousand copies of this "survey" would serve best by being collected and burned.

THE PHYSICIAN'S SOCIAL CONFERENCES

Some mighty interesting and important things about which the world so far has heard little are being done by a growing number of California physicians. The movement has not been named, but may be appropriately designated physicians' social conferences. They are being held by both general practitioners or family physicians and by those who limit their work to children.

The principle is the same in all, but varies in details as between individual physicians. One day or part of a day in each month, more or less, is set aside for a certain group of the physician's patients—those under one year of age, those between one and three, four or five years of age, for example. Whatever the grouping, the group is invited to visit the office for a conference. These conferences are kept largely upon a social plane, but naturally the physician sees and records much of the effectiveness of his health advice and treatment. Naturally younger children are accompanied by older members of the family. No fees are charged for these conferences, and those who wish further specific medical service are given appointments which they keep upon the basis of professional service.

There are opportunities for splendid work by this custom, provided that the invitations are strictly limited to the physician's legitimate clientele. This movement after all is only a development of a commendable practice widely current in many places whereby the physician caring for young children has them report to his office at stated intervals for observation and treatment when necessary. Both movements are calculated to increase the value of medical service and insure sound health service. Both are praiseworthy, provided only that the physician limits his service to his own clients.

A PATHETIC SPECTACLE

At the recent local election, the people of Whittier, California, repudiated the terms of an agreement by which Colonel Simon J. Murphy built and gave to the community the Murphy Memorial Hospital, a well-built, well-equipped 100-bed hospital costing nearly $400,000.

During election day, Colonel Murphy, who is in exceedingly poor health, drove through the city with banners on his car, asking the people to vote "No" on the local initiative, which was designed to make a "scrap of paper" out of a written agreement and to flaunt the wishes of a public benefactor. The osteopaths, chiropractors, eddyites, and other groups one would expect to see co-operating in any attack upon scientific medicine and adequate education as a qualification of its practitioners, succeeded in carrying their initiative.

The issue was clear-cut. The people were informed that, if such action was taken and sustained, the Murphy Memorial Hospital would lose all standing as a hospital by the American Medical Association, the American College of Surgeons, and the American Hospital Association. Both medical and nursing organizations must then refuse to serve in it, and it becomes what the majority of voters of Whittier evidently want it to be—a place for cultists to treat their patients. There may be a few physicians, not members of this organization, who will connubiate with the cultists in their fine new hospital. They apparently are of the kind the majority of the voters want, but they are not the kind that can get into any really worthwhile hospital. It will be equally difficult to secure a staff of nurses who so far forget their moral code as to serve in such a discredited place. They will not, of course, be permitted to operate an accredited school of nursing. This means, in addition to other failures, that students who might be induced to train in the hospital could not secure their properly much-coveted R. N. from the State Board of Health.

The only thing left for the educated physicians, nurses, and that element of the public who still believe in scientific medicine, and medical agencies, to do is, to build their own hospital, or go to the nearby city of Los Angeles for hospital service.

If the action of the Whittier electorate is sustained, it might be well for people who hold any municipal bonds, or who are contemplating the purchase of municipal bonds, to consider the possibility carefully. Because if Whittier, or any other municipality, can by a local initiative repudiate one financial agreement, it can repudiate another.

The most important lesson of all is the one that private benefactors will, no doubt, get from the Whittier debacle. It is safe to predict that within a short time the Murphy Memorial Hospital will remind one of the buildings sometimes seen in the outskirts of a deflated boom town. Its service to the sick will be in harmony with the appearance.

Poor Whittier!

"PHYSICAL EDUCATION" AND "SCHOOL HYGIENE"

A great deal of space is being taken in various school magazines published by official school bodies and supported by the tax money as to whether the "physical education" department or the "school hygiene" department or the "school health" department or all three should have charge of the practice of medicine among school children. It is rare in official school publications to see even a mention of the physician as a health worker and it is equally rare

to see mention of the necessity of a medical education as a prerequisite for teachers or practitioners of medicine and health among school children.

A few brief abstracts from *"School Life,"* an official organ of the bureau of education may prove interesting:

"Emphasize health always as a positive rather than as a negative thing. Present health to children in terms of beauty, strength, and joy. **Never mention illness or disease to children if it is possible to avoid it.**

"Teachers should make simple physical tests. Not adequate substitute for inspection by physicians, but a step in that direction. Relatively little training required.

"Any person capable of holding a teacher's license can be taught in a short time to test vision and hearing, to know of the presence of decayed teeth, to judge whether the tonsils are normal or diseased, and to recognize the general indications of malnutrition.

"It is no more difficult to rate children on their physical condition than on their knowledge of arithmetic and geography.

"Many teachers have stated emphatically that never again would they admit a child to their classes without first examining him physically.

"At first glance it might appear that physical inspection places upon the teacher an added burden, but the reverse is true.

"Inspection by a teacher is not an adequate substitute for inspection by a doctor, but it is a step toward attaining regular medical inspection.

"Physical examinations of school children indicate that 70 per cent have actual or potential physical defects.

"In at least one state there is a state director of physical education and a state director of school health. The objectives found are named as follows: Obedience, subordination, self-sacrifice, co-operation, friendliness, loyalty, capacity for leadership, fair play, sportsmanship, self-confidence, self-control, mental and moral poise good spirits, alertness, resourcefulness, decision, perseverance, courage, aggressiveness, initiative.

"Many teachers, parents, and, we fear, more children, have been much perplexed, because the children, after following faithfully all the laws prescribed for the "nutrition game,' have failed to measure or weigh up to the standard laid down in the tables and charts.

"Malnutrition is the most serious and most expensive condition with which we have to deal. It is the cause of the two most common of our diseases—rickets and carious teeth, and there is good evidence that it has very much to do with the production of adenoids and abnormal tonsils.

"You cannot by any means make a Poland China pig out of a razorback, nor change a thoroughbred colt into a Percheron horse."

And so on as far as you are interested to go. Most, if not all the volumes of propaganda published in the form of regular magazines, bulletins and what not by the educational authorities and paid for out of public funds indicates a well-laid and persistent plan for the complete control of the health of children *by the school boards,* instead of by physicians and legitimate medical agencies.

No such powerful, well co-ordinated and well financed (by public funds) movement for placing the control of the practice of medicine, including public health, in the hands of those incompetent by education and training to handle the subject, has ever before confronted any civilized people. In no other state has it made greater or more rapid progress than it has in California.

The practice of medicine under the guise of "physical education," "school hygiene" and what not has become so extensive by teachers, nurses, and other inadequately educated technicians that even the chiropractors and other cultists are protesting. Official medically educated health officers and physicians for the most part have been protesting for a long time. A small number of health officers, and an even smaller number of other physicians, endorse the movement, we hope, for other reasons than the apparent ones.

Nor is this opposition on the part of physicians a selfish one. The more active these school authorities are in the incompetent practice of medicine and in the equally incompetent and often dangerous health advice they are purveying, the more physicians will have to do. As a specially qualified citizen, however, interested in promoting the welfare of his fellow man, the intelligent physician gets nausea and indigestion from much of the foolish and often dangerous health advice that is put out almost daily by these "near doctors" as health information.

It would be hard to describe his feelings over the little patients he sees with malaria, kidney, heart, lung and scores of other troubles who come to him for assistance much later than they otherwise might, because these patients held school board diagnoses of "undernutrition," "malnutrition" or some other *symptom* and who have been officially treated by diet and otherwise by the agents of the board of education.

A prominent public health officer reports that the feelings of a school nurse were much hurt because he criticized her for both diagnosing and treating an epidemic skin disease among the pupils. A threat of arrest for practicing medicine without a license corrected the situation temporarily. These school children were suffering from impetigo contagiosa—fortunately.

Another school child, diagnosed "malnutrition" by the board of education and being treated by "scientific diet," finally consulted a physician who found her spleen enlarged and her blood swarming with malarial parasites.

Still another school child, diagnosed by the board of education as suffering from "undernutrition" and being treated by a "nutrition specialist," finally consulted a physician who found a disqualifying disease of the heart.

Still another school child with the same formularized diagnosis and line of treatment finally fell into the hands of a physician. The child's blood showed a pronounced anemia; there was a slight elevation of temperature and the chest contained suspicious signs. X-ray examination confirmed the diagnosis of early tuberculosis.

In the face of these things and the more and more yet to be discussed, why bother about the incompetent health work of a few hundred chiropractors and other recognized cultists?

The editors of California and Western Medicine appreciate the co-operation of physicians reporting to us instances like the above, and we want many more—enough so that we can quote from a few hundred of them in an article in the course of preparation.

IODIDE IN PLUMBISM

Perhaps the most commonly used therapeutic measure in the treatment of chronic lead poisoning is the oral administration of iodide, either sodium or potassium. Clinical opinion, however, is at variance as to its beneficial effects, some claiming positive, other, negative results. The question resolves itself into two propositions: first, the mechanism of the action of iodide in lead poisoning, and second, the nature of chronic lead poisoning. The latter proposition will be considered first, since this logically precedes consideration of the former. That is, a therapeutic measure cannot be applied rationally until the cause or nature of the disease condition is understood.

Experimental studies on animals (cats, mice, rats, and birds) made by a number of investigators yield two explanations. One explanation is that lead accumulates in the form of deposits in various organs, and then is gradually released and acts upon various structures, giving rise to the well-known symptoms of the poisoning. This notion rests on good evidences, namely, accumulated deposits of lead, especially in bones, as claimed by Aub and Minot of the Harvard Laboratories of Applied Physiology; and the continuation of the poisoning after stoppage of lead administration. The other notion is based on equally good evidences, namely, absence of lead deposits in certain species exhibiting characteristic symptoms and immediate signs of recovery upon withdrawal of the lead, as observed by Straub of the Freiburg Pharmacological Institute, and Hanzlik of the Stanford Pharmacological Laboratory. Accordingly, the storage theory is not held to be valid, and the poisoning is explained by accumulation of injuries due to the continued passage of adequate concentrations of lead through the body, recovery taking place when the concentration and passage are inadequate as upon withdrawal of the lead. These two notions, apparently equally well sustained by evidences, leave the nature of the poisoning unsettled, and, therefore, the study of therapeutic measures difficult. Nevertheless, attempts to ascertain the mechanism of iodide action in experimental lead poisoning have been made and interesting results obtained.

Scremin of the Pharmacological Institute, in Padua, has made several ingenious experiments. Using chemosis in rabbits and guinea pigs as a test of tissue action from increased lead solubility, this investigator administered sodium iodide gastrically, and then dusted the eyes with different insoluble salts of lead. No yellow iodide of lead was found, and also no chemosis or other effects. This indicated that the lead salts on the tissues were not acted upon by the iodide in the body fluids. Yellow lead iodide introduced subcutaneously in small amounts in iodized animals disappeared as such, but the lead ion remained at the place of application, as indicated by a black discoloration of the tissue when exposed to hydrogen sulphide. When sodium iodide was injected together with lead iodide subcutaneously, the lead iodide remained in the tissue uninfluenced, though in the absence of sodium iodide only the lead ion remained. In other words, the presence of the iodide ion in the tissues, as from administration of sodium iodide, caused retention of the lead as lead iodide locally and not removal, as is supposed to be the case in iodide therapy. Scremin concluded, therefore, that iodide did not react chemically with lead compounds (chloride, carbonate, phosphate, and sulphate) which occur in the tissues of lead poisoning. He suggests, therefore, that the clinical beneficial effects of iodide depend on some increase in metabolism, or, in other words, on a general iodide action, and not upon the removal of the cause; that is, the lead.

Sodium iodide given by mouth to pigeons poisoned with metallic lead (administered gastrically) was found by Hanzlik and Presho to be beneficial, as to relief of symptoms and reduction of the fatal dose. The results were explained on the basis of insolubility of the lead, this having occurred also *in vitro*. These results, therefore, agreed with those of Scremin as to the chemical influence of iodide on lead, namely, that the iodide tended to render lead insoluble, if anything, and, therefore, more localized. Accordingly, it would be expected that iodide would tend to form deposits of lead iodide, or, in other words, produce accumulation of lead as in one of the theories of the nature of lead poisoning. From this it follows that the less soluble the deposit the lesser the poisoning and the greater the benefit. This line of thought, however, is confronted with the difficulty that recovery from the poisoning occurs clinically, which should not occur as long as the lead is retained according to the same theory. The insoluble lead (rendered so by iodide) might be removed by some other mechanism. This comes almost to the same thing as saying that iodide per se does not remove the lead. The negative results with iodide as to solubility of the lead indicate indirectly that the nature of chronic lead poisoning is not due to an accumulation of lead, but that it is concerned with injuries accumulated from the continuous passage of lead in adequate concentration, the higher the concentration the shorter the time necessary for the result.

Other treatments besides iodide are used and claimed to be beneficial. Their bases appear to be different from that for iodide. Experimental lead poisoning (not the acute) in animals may not be the same as chronic lead poisoning in man. This appears to be an important difficulty in the study of the problem. Meantime the use of iodide in plumbism is still to be regarded as an empirical remedy. However, in view of the extent and seriousness of plumbism throughout the civilized world, the problem merits attention from all sides, and it is hoped that new methods of attack, especially from the clinical side, may be devised.

Aub and Minot: Journ. Am. Med. Assoc. (Proc.) 1923, 80:1643, "The Retention and Elimination of Lead."

Straub: Int. Med. Congress, London, 1913, Part II, p. 61, "Experimental Chronic Lead Poisoning."

Hanzlik: Arch. f. exper. Path. u. Pharm., 1923, 97:183, "Experimental Plumbism in Pigeons from the Administration of Metallic Lead."

Scremin: Arch. f. exper. Path. u. Pharm., 1923, 99:96, "Iodide Therapy in Chronic Lead Poisoning."

Hanzlik and Presho: Journ. Pharmacology and Exptl. Therap., 1923, 21:131, "Therapeutic Efficiency of Various Agents for Chronic Poisoning by Metallic Lead in Pigeons."

Medicine in the Public Press

"Synthetic Psychology" — Physicians have noticed the news value attached to the puerile and disgusting statements of Mrs. Edith Rockefeller McCormick about her "new" philosophy of life and treatment of disease. The best reply that we have seen is contained in an editorial with the title of "Old Brains for New" in the San Francisco Daily News, which says:

"First thing Mrs. Edith Rockefeller McCormick, of the Chicago McCormicks, knows, she will be infringing on the Coué patent. She has a cure which she calls 'synthetic psychology,' and which she explains to be renovation of the brains. The human mind is a house, with old, worn furniture in the shape of old, worn thoughts. 'Synthetic psychology' simply throws out the old and puts in new furniture. Mrs. McCormick admits that it is much easier to throw out old than to get in new furniture, wherein the lady certainly indicates that she knows furniture.

"We wish her well. Anybody devoting time, money and argument to renovating the average human mind of these times needs encouragement."

Are There Any Limits? — Recently, front-page "news" stories announced the discovery of still another discovery of a still further improved x-ray tube. The story quoted J. C. Bloodgood as endorsing the new tube. This was promptly repudiated in a telegram to the New York Times, in which he said: "Your special from Baltimore, published on your front page this morning, quoting me on new x-ray tube, is an error and a dangerous error. I know of no such discovery or new tube, and did not give out the interview. I am sorry, because I would welcome such a great discovery."

Comedy in Health Reform — Most of our health reform movements, particularly the popular ones, are so steeped in melodrama and even tragedy, or at best a grim sort of humor, that a touch of light comedy now and then encountered is refreshing.

The best recent example is being interpreted by the courts of New York. It seems that a motion picture corporation prepared a film illustrating the everyday problems and practices in childbirth. The film was to be shown only to physicians and nurses. A temporary injunction prohibiting the showing of the picture was secured by the public health, licensing and film censorship people on the ground that its exhibition was derogatory to the morals of physicians and nurses. Funny, isn't it? Both physicians and nurses encounter so much of the real problems that it is difficult to understand how or why they would be interested in having their work portrayed on the "silver sheet." It would be more important to analyze the motives of the kid-gloved, swivel-chair guardians of our health by those sanctimonious supermoral persons who have never worked all night with the hard problems of life-saving that is part of the day's work of the worthwhile physician and nurse. They encounter nothing immoral in naked nature in travail.

Statistics Always Supply What You Look for— Geniuses, as a rule, are not the offspring of young parents, says a report of the Society of Bavarian School Teachers. After investigating into seventy-four cases of prominent personalities of the artistic and literary world, this organization found that among them were only ten first-born children. The report points out that Fenimore Cooper was the eleventh of twelve children; Honore Balzac, the youngest son of his parents; Napoleon Bonaparte, the eighth child; Benjamin Franklin, the youngest of seventeen; Rembrandt, the fifth of six children; Richard Wagner and Wolfgang Amadeus Mozart were the last of seven; Robert Schumann, the fifth, and Franz Schubert, the thirteenth of fourteen children. The investigations thus convince these teachers that a rather advanced age of the parents seems to be more favorable to the production of great personalities.

Again, we see that statistics supply what one looks for.

Cornelia and Dionysus — Large numbers of our people still look upon the physician as something more than a giver of pills. Every true physician recognizes that his most important and useful work is outside the field of stethoscopes and materia medica. The proudest day in a doctor's life is the day a dignitary confers upon him his degree of Doctor of Medicine. The day when he feels most humble is when some young girl he has assisted into the world comes to him to explain the new threshold of life she is about to cross. He knows that it is not so much his skill as his soul that the young, the old and the dying love him for. This always has been so, and it will continue so long as the art of medicine lasts.

To meet his broader responsibilities with tact and wisdom, it is necessary, however difficult the problem, for the modern physician to read much and broadly. He will find much of the knowledge required to meet effectively this ever greater field of his usefulness, not in medical journals, but in the better class of literature, art and other tangible expression of life and ideas available to all. The power not only to assimilate the good from these lessons, to adopt them to special needs and pass them on in understandable language to those looking to him for guidance is the highest art of medicine.

One of our members has called our attention to the article under the above title in the May Atlantic which suggests the above introduction to the editor. We pass it on to you.

Biased Evolution—Doctor, if you are interested in what many of your patients are reading about evolution, may we suggest that you read the article under the above title (Harper's) by Alfred J. Lotka? It is well written and it is stimulating whether you agree with the author or not. Certainly, you will find there the source of some of your patients' questions to you.

The Renewal of Youth by Surgery—If you are interested in "educating" everyone in medicine and are curious as to the quality of the educational matter, how it is put and why, it might be well to scan an interview with Voronoff by Armstrong Perry, in the May issue of The Forum. Your patients are reading this sort of "educational" material, and they are likely to base their questions to you accordingly. And what is more important, some of them are quite likely to estimate your ability in proportion as you agree with the claims made by this and similar writers. The "atmosphere" of the article and its purposes is indicated in a short paragraph:

"A ring at the gate of Dr. Voronoff's garden brought a competent valet de chambre, who said that the doctor was attending the celebration of the one hundredth anniversary of the birth of Pasteur. After my mission was explained, the man left me in a drawing room full of old masters, wonderful rugs, and exquisite furniture, returning with the welcome announcement that the doctor would receive me between 6 and 7 in the evening."

Lopsided Farmers — An official bulletin of the Bureau of Education at Washington says: "Farm life, instead of promoting all-round physical development, tends in many cases to overdevelop certain muscles while completely ignoring others."

This will be "news" to farmers and physicians; at least, all of those who have actually worked on a farm will be delighted to know that some of their muscles get a rest now and then.

STATE SOCIETY

MINUTES OF THE HOUSE OF DELEGATES, FIFTY-THIRD ANNUAL SESSION OF THE CALIFORNIA MEDICAL ASSOCIATION.

FIRST SESSION

Held in the Ballroom of the Los Angeles Biltmore, Los Angeles, California, Monday evening, May 12, 1924, at 8 p. m.

Calling to Order—The meeting was called to order by the president, T. C. Edwards of Salinas.

Roll-Call—The secretary called the roll; sixty-eight (68) delegates were seated, and the president, T. C. Edwards, declared a quorum present.

Report of President—The president, T. C. Edwards, presented the following report:

As the various reports to be submitted at this session cover the work of the association during the past year, there is little for me to say except what I have personally done. There were eleven meetings of the Executive Committee during the year, and I have attended ten of them besides attending all meetings of the Council. Doctor Parkinson, chairman of the Council, and I visited various county societies at Sacramento, Woodland, and Chico, at which meetings members and representatives of over ten counties were present. I also visited in Marin County. I have found, in making these visits, that the country men like their councilors and officers to meet with them, and at the last Council meeting councilors reported great interest in their work and their visits to the various county societies in their districts, and I believe that if this is followed up great good will come of it.

Appointment of Reference Committee—The president appointed the following Reference Committee: Harlan Shoemaker of Los Angeles, Robert Pollock of San Diego, and Clarence G. Toland of Los Angeles.

Report of the Council

James H. Parkinson of Sacramento, chairman of the Council, submitted the following report:

Doctor William Stover—The Council again regrets to record the loss of a member during the current year, William Stover having passed away on April 4, 1924. Doctor Stover, who represented the Third District, has been a member of the association for many years and was elected to the Council at the last annual meeting.

Doctor B. F. Keene—The committee appointed in the matter of the restoration of the grave of Doctor B. F. Keene, the first president of the society, has submitted a final report embodying details as to specifications and costs. The Council recommends that the report be adopted and instructions issued to give it effect.

Meetings—The Council has held, in all, three regular meetings during the year. One open meeting was held in Los Angeles, January, 1924, at which all interested in Industrial Medicine and Surgery were invited to discuss the problems of this particular branch of our activities. The results of this meeting were issued in the form of a questionnaire, 200 of which were sent out. These were sent to men known to be doing industrial work, including those indicated by the secretary of the Section on Industrial Medicine and Surgery, and to secretaries of all county societies. Copies were also mailed to members requesting them. To date fifteen have been returned, and these have been submitted to the Industrial Medicine Section.

The Executive Committee has held eleven meetings during the year. It was thought best to notify all members of the Council of these meetings so that whenever convenient they could attend. This new departure has worked well and we have had a larger attendance.

Five questions were submitted to the Council by mail ballot.

Office of the Society—The work of the office has been most successfully and satisfactorily conducted by the present staff. Constant attention by the secretary to many little details has resulted in greater efficiency than we have ever known. The report of the Council, covering as it does all phases of the society's activity, must necessarily deal in a general way with the duties of its staff.

The following table shows the growth of the society from the year 1912 and gives our active membership at the close of 1923 as 3809.

Membership—1912, 2300; 1913, 2396; 1914, 2503; 1915, 2557; 1916, 2602; 1917, 2699; 1918, 2534; 1919, 2496; 1920, 3136; 1921, 3484; 1922, 3666; 1923, 3809.

The Journal—Upon recommendation of the editor the California State Journal of Medicine is now entitled California and Western Medicine. During the year it has become the official organ of the Utah Medical Association, as it had been of the Nevada Medical Association. It has recently had a new cover and has added sixteen pages to its regular form. The editorial pages under Doctor Musgrave's able direction have given earnest attention to the many problems with which medicine is constantly confronted. With quite remarkable perspicacity the editor seems to discern the needs and aspirations of the rank and file of the profession, and topics directly affecting the welfare of the great mass of physicians are dealt with in a singularly clear and forceful way. At Doctor Musgrave's request all editorials on general questions are submitted to the Executive Committee in advance of publication. Doctor Musgrave continues to serve at a salary of $1 per annum.

THOMAS CLAY EDWARDS
President 1923-1924

Medical Defense—In accordance with the decision of the House of Delegates at the meeting in 1923, medical defense by the society will cease as of June 30, 1924. Our general counsel has made every effort during the year to clear the calendar. Most of the cases and threats of cases for the defense of which the society is obligated will be known by July 1, 1925. Until that date is reached the Council feels it would be imprudent to reduce the annual assessment.

Optional Medical Defense—In accordance with authority granted by the House of Delegates, the Council proceeded to put in operation a plan for optional medical defense in conjunction with commercial carriers retaining the present statewide legal staff that has been built up in the past eight years. After several conferences and much correspondence it was found impossible to effect a policy contract that would be satisfactory to the society as a whole. It was recommended that the membership seek coverage as individuals and that the retention of the present legal staff be accomplished on the basis of an annual assessment payable by all who had expressed the desire to do so over their own signatures. These facts with illustrative details were submitted to the membership in Letter No. 4, issued on February 6.

GRANVILLE MacGOWAN
President 1924-1925

Optional medical defense by the society's legal staff, in conjunction with commercial carriers, will automatically go into effect July 1, 1924, for 168 members of the society and will continue on that basis to June 30, 1925. While the future of this feature must be governed entirely by the response of the membership, the Council wishes again to emphasize the desirability of keeping in close contact with the insurance situation and urges a substantial representation in the new optional medical defense plan.

Uniform Constitution and By-Laws for County Societies—It would seem desirable, as far as purposes of organization are concerned, to have a uniform constitution and by-laws for all county societies. That recently adopted by the San Francisco County Medical Society is, at the suggestion of our general counsel, tentatively submitted for that purpose.

Financial Impositions Upon the Profession—Chief of these may be cited:

1. The $2 annual tax by the Board of Medical Examiners, which now automatically becomes part of the contingent fund of the board and cannot be used for board purposes unless budgeted out by the governor.

2. The federal income tax, which makes no distinction between earned and unearned income and which, by bureau interpretation, denies to the medical profession the convention expenses allowed commercial organizations.

3. The federal license under the Harrison Narcotic law, through which the government last year collected from the medical profession funds far in excess of anything needed by licensure, under an enactment wholly unnecessary as far as we are concerned.

4. The local licenses as imposed in various municipalities in which we are included with other professions.

The subject seemed of such importance that the Council appointed a committee, consisting of Rene Bine, chairman of the Executive Committee; Granville MacGowan, president-elect, and William E. Musgrave, editor of the Journal, to take such steps as it deemed proper in co-operation with similar professional organizations. This committee has made a progress report and has been continued.

The books of the society show: Cash on hand January 1, 1923, $4,219.01; receipts during the year 1923 from all sources, $59,949.09; total disbursements, $49,578.28; cash on hand, January 1, 1924, $14,589.82. They are always open for the personal inspection of members, as are all our records. No money is used for other than strictly society purposes. This definite statement is made because there seems to be a suspicion more or less prevalent that the society in some way contributes to the funds of the League for the Conservation of Public Health. This suspicion has absolutely no foundation in fact. The league is a distinct organization with its own officers and its own set of books, which similarly are open at all times to investigation by its members. It has always, when requested, co-operated with the society in any matter, and this co-operation has been absolutely gratuitous. It would seem obvious that its finances and its affairs, with which this society has nothing whatever to do, are only open to criticism or investigation by its members. The league's funds are derived from the contributions of citizens of the great republic of medicine, made voluntarily as their means and their judgment dictates. To such citizens the league only is responsible.

In considering these receipts and disbursements particularly in relation to the amount of cash on hand January 1, 1924 ($14,589.82), certain facts must be taken into consideration. The actual surplus for the year 1923 was $10,370.81, $4219.01 having been carried over from the year 1922. This surplus with our present assessment has only been possible because the society is not paying for some services it now receives and is paying a modest compensation for others. Since May, 1922, Doctor Musgrave has edited the Journal at a remuneration of $1 per annum. No salary was paid to anyone as secretary during the months of February, March and April, 1923. Since then Doctor Emma W. Pope has been drawing $200 per month. Doctor Phillip Mills Jones, as secretary and editor, received $6000 a year. Should the society at any time find a man able and willing to act in this dual

capacity it will no doubt be necessary to increase that figure.

It is a fact that the amounts charged the society for legal services, by which is meant professional work, exclusive of court costs and other expenses, is much below that generally obtaining in commercial law practice, and really quite out of proportion to the services rendered.

When a reduction in the annual assessment from the present figure of $10 is discussed, these facts and figures must be borne in mind. It should also be remembered by those who advocate a "society at cost" that a comparatively small excess fund each year would make possible many desiderata of which the publication of a medical directory by, for and of the society, original investigation, research work and

EDWARD N. EWER
President-Elect

worthwhile prizes for subjects of general advancement in medicine may be mentioned.

Annual Assessment—The Council recommends that the annual assessment for 1925 be fixed at $10.

Report of Committee on Scientific Program—The secretary, Emma W. Pope of San Francisco, as chairman of the Committee on Scientific Program, submitted the following report:

The program for the present session is in your hands and I think shows the good work done by the Program Committee, the section officers and the men who present papers. Special thanks are due the section officers, who willingly responded to all requests made by the state office. With few exceptions programs in full were submitted by February 15 in ample time for the necessary checking of their speakers.

Any one member may present but one paper at an annual session, and only members in good standing in the association, invited guests from other states and countries, or internes not yet licensed, and hence ineligible to membership, are privileged to present papers. All these facts must be verified by the office before the program can be printed. Licensed physicians resident in California who are not members may not be included. A few papers of unquestioned merit were offered section officers, but are not on the program, as the men who desired to present them were unwilling to apply for membership in the California Medical Association. In each case this ruling has been clearly put by the section officer and an invitation to join the society extended. We feel strongly that physicians who are unwilling to ally themselves with the society should not receive privileges that rightfully belong to the membership.

We regret that Doctor Alfred Decastello and H. Finkelstein are unable to be with us. Doctor Ray Lyman Wilbur will speak before the League for the Conservation of Public Health on Wednesday morning, as he is compelled to return to the university before the Thursday session. We especially regret that he could not present his paper before the California Medical Association meeting, where he, as president of the American Medical Association, properly belongs. At that meeting Judge Paul D. Burks of Los Angeles will present a paper on "Relation of the Doctor to Expert Medical Testimony." Doctor P. G. Woolley, Assistant Professor of Pathology, Detroit College of Medicine and Surgery, will speak on "The Relation of Laboratory to Clinical Medicine," and Doctor U. G. Houck of the U. S. Bureau of Animal Industry, and inspector in charge of hoof and mouth disease eradication, will give a timely address on the medical question that is of paramount interest to California at the present time, "Hoof and Mouth Disease."

Report of Auditing Committee—Rene Bine of San Francisco, chairman of the Auditing Committee, stated that the books of the association were audited each year by a firm of certified public accountants; that Lester Herrick and Herrick of San Francisco had audited the books for the year 1923, and certified that all accounts were in due form and had been verified. He also stated that the reports of the auditors would be passed around for those to see who so desired.

Report of Committee on Bunnell Memorial—Emmet Rixford of San Francisco, chairman of the Committee on Bunnell Memorial, not being present, Saxton T. Pope of San Francisco presented the report of this committee:

The committee wishes to report that it has reviewed the literature sent to the association by Doctor Howard A. Kelly of Baltimore, and find it very explicitly demonstrated that Doctor Lafayette Houghton Bunnell was among the first to enter Yosemite Valley. He was a member of an exploratory party which visited the valley in 1851. He was the first man to propose the name of Yosemite to the valley and, through his writings, he first made it known to the world. The claims of discovery are, therefore, properly awarded to him and the matter of priority has been carefully worked upon by Doctor Kelly. We, therefore, feel that dedication may be made with propriety and justification.

Your committee addressed a communication to the superintendent of the Yosemite National Park, which was later forwarded to the Director of National Parks, Mr. Stephen T. Mather. In this communication we asked permission to place a tablet in Yosemite Valley at the base of El Capitan, the spot where these first explorers camped in the month of March, 1851. We are now in receipt of permission from Mr. Mather to erect a suitable plaque conditioned on his approval of the design.

The tablet itself has been placed in the hands of Mr. Paul J. Fair, an animal sculptor, and a photograph of it will be passed around for all to see. The subject, as you will see, is a large figure of a grizzly bear, which represents the translation of the name Yosemite from the Indian, and the medical caduceus, which is the emblem of medicine since the time of Hippocrates. The inscription on the tablet is as follows:

"To commemorate Dr. Lafayette Houghton Bun-

nell—one of the first party of white men to enter the Yosemite Valley in March, 1851. He proposed the name Yosemite and was the first to proclaim its beauty and wonders to the world. Dedicated by the California Medical Association, 1925 A. D."

Photographs of the plaque will be sent to Mr. D. R. Hull, landscape engineer of the National Park Service, and to Mr. W. B. Lewis, superintendent of the Yosemite National Park, and will thereafter be forwarded with their recommendations to Mr. Mather.

The expenses of the tablet have been assumed, so far, by your committee, and will probably not amount to more than $200, including the sculptor's fee, the casting in bronze, and the placement upon a boulder at the foot of El Capitan.

Doctor Kelly stated that he had collected $14, which he has since raised to $50. A check for this $50 has been received by your committee from Doctor Kelly for the proposed memorial to Doctor Bunnell in Yosemite.

Your committee feels that, if the 1925 convention is held in Yosemite National Park, the proposed memorial to Doctor Lafayette Houghton Bunnell should be dedicated at that time, and recommends that an invitation be extended to Doctor Kelly to be present at the dedication and to address the association on that occasion.

Report of Secretary—The secretary, Emma W. Pope of San Francisco, presented the following report:

After hearing the reports of the chairman of the Council, the editor of the Journal, the legal counsel, and the chairman of the Auditing Committee, the secretary feels that the activities and the reports of the state office have been rather fully covered. It is pleasant, however, to report a few statistics and facts.

During 1923 we received eighteen resignations, owing mainly to removal from California, and there were forty deaths of members of the society. In spite of this we had eighty-five more members at the close of 1923 than at the end of 1922. There was also an increase in the cash on hand of $10,370.81, due to an unexpected halt in the legal output and a decrease in office expense.

We cannot be sure that the peak of legal expense has been reached. We hope that it has, and that the society may report a similar saving to the membership during 1924. On the other hand, it may become our unpleasant duty to report an inroad upon the association's reserve, rather than an addition to it.

Two activities of the state office deserve repeated mention until fully understood by our members. I refer to your placement bureau and the extension service. The placement bureau has meant more than any comfortably settled physician can realize to our young men and women starting their life work, to men coming in from outside states, and to country physicians who need assistance during illness or enforced absence. More than fifty such positions have been filled this year, which, being understood, means that 100 requests were complied with, for the request of the man seeking work necessarily dovetails into that of the man needing assistance; five technicians, one dietitian, and twelve nurses and stenographers for doctors' offices were also located. Wherever possible, physicians should use this bureau and maintain its efficiency. In no other service of this office are so many stanch friends made for the society. The placement bureau is a very tangible and material evidence of the association's good-will and personal interest in its membership.

In line with this work, we co-operate with The Californians, Incorporated, in answering questions from physicians who desire to settle in California. As a direct result men who have received courteous answers and helpful suggestions have in many instances become members and active friends of the society.

The extension list of speakers for county society meetings has not been enlarged this year, awaiting the report of the committee appointed to look into the work. Now that it has been definitely decided that county societies desire set papers rather than clinics, as was suggested by the committee, an effort will be made to enlarge the present panel of available papers and speakers.

Four assistants carry on the work of the office and Journal at an aggregate salary of $640 a month. Few offices handling the volume of work that passes through the state office employs so small a force. The compilation of a monthly journal of 112 pages, the reports of the legal department that successfully defends its 4000 members, a placement bureau and general information desk, a clipping and statistical file in reference to our membership, the work of arranging for the annual meeting, for three Councils and many executive meetings, the recording of members in good standing and delinquent, the bookkeeping incident to the handling of funds amounting to $50,000, is all done by your four capable and efficient assistants.

In closing, let me emphasize that misunderstandings and suspicion vanish before open question. When in doubt concerning the policy of your state organization, ask questions. To the best of our ability they will be answered. I am glad to report that from county secretaries all over California have come questions during the year relating to the termination of indemnity and legal defense, the reduction of dues, and to the expenditures of the society. The San Francisco County Medical Society at its last board of directors' meeting requested the office to have a representative present at that meeting to explain our financial condition. All such requests are cheerfully acceded to and make for mutual understanding.

Report of Editor—In the absence of William E. Musgrave of San Francisco, Rene Bine of San Francisco read the report of the editor, which will be published in the July issue.

Unfinished Business—There was no unfinished business to come before the House of Delegates.

New Business—In accordance with the rules of the association, the following resolutions were presented and referred to the Reference Committee. For text of these resolutions and final action by the House of Delegates, see minutes of the second session.

Resolution No. 1. **Farming Out of Medical Service to Laymen.** Presented formally by Morton R. Gibbons of San Francisco for and at the request of the Section on Industrial Medicine of the San Francisco County Medical Society.

Resolution No. 2. **Physicians' and Surgeons' Panel for Industrial Accident Work.** Presented by Morton R. Gibbons of San Francisco.

Resolution No. 3. **Dealers in Cut-Rate Industrial Contract Practice.** Presented formally by Saxton T. Pope of San Francisco for and at the request of Carl Hoag of San Francisco, who was unable to be present.

Resolution No. 4. **Ethical Standing of Physicians Employed by Lay Organizations Practicing Medicine for Profit.** Presented by Walter V. Brem of Los Angeles.

Adoption of Minutes—The minutes of this session were read and approved.

Adjournment—There being no further business the house adjourned to meet at 8 p. m. Wednesday, May 14, 1924, in the Music Room.

SECOND SESSION

Held in the Music Room of the Los Angeles Biltmore, Los Angeles California, Wednesday evening, May 14, 1924, at 8 p. m.

Calling to Order—The meeting was called to order by the president, T. C. Edwards of Salinas.

Roll-Call—The president announced that the president of the Tulare County Medical Society, A. W. Preston of Visalia, was present and, if there was no objection, would act as delegate from his county society. There being no objection, the president declared A. W. Preston of Visalia delegate from the Tulare County Medical Society.

The secretary, Emma W. Pope of San Francisco, called the roll; fifty-two (52) delegates were seated, and the president declared a quorum present.

Place of Meeting for 1925—The chairman of the Council, James H. Parkinson of Sacramento, announced that, by unanimous action of the Council, the invitation of the Yosemite National Park Company to hold the 1925 meeting in Yosemite National Park had been accepted, and that the date would be fixed later by the Council in accordance with correspondence with the Yosemite National Park Company and so as not to conflict with the 1925 meeting of the American Medical Association.

Election of Officers

President-Elect—Edward N. Ewer of Oakland was nominated for president-elect by Pauline S. Nusbaumer, Oakland. On motion of Paul M. Carrington, San Diego, seconded by James H. Parkinson, Sacramento, the nominations were closed. The secretary cast the ballot, and Edward N. Ewer was declared elected president-elect of the association for the year 1924-1925.

Vice-President—Harry E. Alderson of San Francisco was nominated for vice-president by Joseph Catton, San Francisco. The nomination was seconded by A. S. Musante, San Francisco. On motion of A. J. Scott, Jr., Los Angeles, seconded by William E. Stevens, San Francisco, the nominations were closed. The secretary cast the ballot, and Harry E. Alderson was declared elected vice-president for the ensuing year.

Councilors

First District—Lyell C. Kinney of San Diego was nominated for councilor for the First District by Paul M. Carrington, San Diego. On motion of P. T. Phillips, Santa Cruz, seconded by Victor G. Vecki, San Francisco, the nominations were closed. The secretary cast the ballot, and Lyell C. Kinney was declared elected councilor for the First District for the ensuing three years.

Third District—A. H. Wilmar of Paso Robles stated that the Third District had been unable to find a man to fill the vacancy caused by the death of the councilor from their district, William M. Stover of San Luis Obispo, and requested that the matter of filling the unexpired term of Doctor Stover be left to the Council. There being no objection, the president declared that there would be no election at this time to fill the vacancy caused by the death of the councilor from the Third District, and that the matter would be referred to the Council for action.

Councilor-at-Large—Morton R. Gibbons of San Francisco was nominated by W. Edward Chamberlain, San Francisco, for councilor-at-large. The nomination was seconded by Joseph Catton, San Francisco. On motion of William E. Stevens, San Francisco, seconded by James H. Parkinson, Sacramento, the nominations were closed. The secretary cast the ballot, and Morton R. Gibbons was declared elected councilor-at-large for the ensuing three years.

Member of Committee on Scientific Program—Joseph Catton of San Francisco was nominated by William E. Stevens, San Francisco, a member of the Committee on Scientific Program. The nomination was seconded by W. Edward Chamberlain, San Francisco. On motion of A. S. Musante, San Francisco, seconded by Harry E. Alderson, San Francisco, the nominations were closed. The secretary cast the ballot, and Joseph Catton was declared elected a member of the Committee on Scientific Program for the ensuing four years.

Delegates to the American Medical Association (two to be elected for a two-year term)—C. Van Zwalenburg of Riverside was nominated by Clarence G. Toland, Los Angeles; said nomination being seconded by Charles D. Lockwood, Pasadena.

Victor G. Vecki of San Francisco was nominated by William Duffield, Los Angeles; said nomination being seconded by A. S. Musante, San Francisco.

Albert Soiland of Los Angeles was nominated by Robert V. Day, Los Angeles.

T. C. Edwards of Salinas was nominated by Paul M. Carrington, San Diego; said nomination being seconded by Thomas O. Burger, San Diego.

Robert V. Day of Los Angeles then requested permission to withdraw the name of Albert Soiland of Los Angeles as delegate to the A. M. A. for a two-year term, as he had desired to nominate Doctor Soiland for the one-year term. There being no objection, the president declared the name of Albert Soiland withdrawn.

There being no further nominations, the president declared that, as only two delegates were to be elected for the two-year term, the House would proceed to ballot, and appointed William E. Stevens of San Francisco and W. A. Clark of Oakland as tellers. The president declared that fifty-six ballots were cast and, as only fifty-two delegates were seated when the roll was called, the secretary would again call the roll. The secretary then called the roll and fifty-nine delegates were seated, and the president announced that the former ballot would be thrown out and a new ballot taken. Fifty-eight ballots were cast as follows: T. C. Edwards of Salinas, 47; Victor G. Vecki of San Francisco, 34; C. Van Zwalenburg of Riverside, 31. The president then declared T. C. Edwards and Victor G. Vecki elected delegates to the A. M. A. for the two-year term.

(Two to be elected for a one-year term)—Albert Soiland of Los Angeles was nominated by Robert V. Day, Los Angeles.

John C. Yates of San Diego was nominated by Paul M. Carrington, San Diego.

On motion of P. T. Phillips, Santa Cruz, duly seconded, the nominations were closed. The secretary cast the ballot, and the president declared Albert Soiland of Los Angeles and John C. Yates of San Diego elected delegates to the A. M. A. for the one-year term.

Alternates to the American Medical Association (two to be elected for a two-year term)—William E. Stevens of San Francisco was nominated by Harry E. Alderson, San Francisco; said nomination being seconded by Joseph Catton, San Francisco.

C. Van Zwalenburg of Riverside was nominated by Harlan Shoemaker, Los Angeles.

On motion of George H. Kress, Los Angeles, seconded by Clarence G. Toland, Los Angeles, the nominations were closed. The secretary cast the ballot, and the president declared William E. Stevens of San Francisco and C. Van Zwalenburg of Riverside elected alternates to the A. M. A. for the two-year term.

(Two to be elected for a one-year term)—Robert V. Day of Los Angeles was nominated by William Duffield, Los Angeles; said nomination being seconded by William T. McArthur, Los Angeles.

Charles D. Lockwood of Pasadena was nominated by T. C. Myers, Los Angeles.

On motion of George H. Kress, Los Angeles, seconded by Victor G. Vecki, San Francisco, the nominations were closed. The secretary cast the ballot, and the president declared Robert V. Day of Los Angeles and Charles D. Lockwood of Pasadena elected alternates to the A. M. A. for the one-year term.

Delegates to the A. M. A. with their corresponding alternates are as follows:

T. C. Edwards, Salinas, 1924 and 1925; alternate, William E. Stevens, San Francisco, 1924 and 1925.

Victor G. Vecki, San Francisco, 1924 and 1925; alternate, C. Van Zwalenburg, Riverside, 1924 and 1925.

Albert Soiland, Los Angeles, 1924; alternate, Robert V. Day, Los Angeles, 1924.

John C. Yates, San Diego, 1924; alternate, Charles D. Lockwood, Pasadena, 1924.

Report of the Reference Committee

Harlan Shoemaker, chairman of the Reference Committee, read the following report:

1. **President's Address**—The committee commends this scholarly and timely address and recommends, if possible, that it be given wide publicity.

Action by the House of Delegates: On motion, duly made and seconded, it was unanimously resolved that the recommendation of the Reference Committee be approved.

2. **Address of President-Elect** — The committee commends the address of the president-elect for its literary excellence and its erudition, its sound Americanism and its timeliness in a day when standards in the community, state and nation seem uncertain and when in our own profession we find our ideals less clearly perceived and less earnestly sought.

Action by the House of Delegates: On motion, duly made and seconded, the recommendation of the Reference Committee was approved.

3. **Report of the Council—Doctor B. F. Keene**—The committee recommends that the report of the committee of the Council in the matter of the grave of our first president be adopted and that the Council be instructed to put it into effect.

The Journal—Recommends that the society express its gratification in the constant improvement of the Journal and, while congratulating the editor upon the success already attained, records its approval of his policy in its editorial conduct.

Optional Medical Defense—Recommends that members seriously consider the proposed Optional Medical Defense, so that by promptly applying for membership it can be placed upon a satisfactory basis at the earliest opportunity.

Uniform Constitution and By-Laws—Recommends that the Council take steps to ascertain the views of county societies on adoption of the proposed model constitution and by-laws.

Financial Impositions Upon the Profession—Recommends that the society approve the steps taken by the Council to lessen the financial burdens upon its members and to remedy injustices inflicted upon the profession.

Annual Assessment—Recommends that the annual assessment for 1925 be fixed at $10.

Action by the House of Delegates: On motion, duly made and seconded, it was unanimously resolved that the recommendations of the Reference Committee be approved.

4. **Report of Bunnell Memorial**—Recommends that the committee, if possible, arrange so that the memorial tablet can be dedicated in May, 1925.

Action by the House of Delegates: On motion, duly made and seconded, it was unanimously resolved that the recommendation of the Reference Committee be approved.

5. **Report of the Secretary**—(a) **Placement Bureau**—Recommends that physicians generally bear in mind this service so that it can be made available when occasion arises.

(b) **Finances of the Society**—Urges members when in doubt as to any matter of expenditure to visit or to correspond with the office and thus obtain direct information.

Action by the House of Delegates: On motion, duly made and seconded, it was unanimously resolved that the recommendations of the Reference Committee be approved.

6. **Report of the Editor**—Congratulates the editor, William E. Musgrave, upon the great improvement in the Journal. Recommends that members of the society more generally adopt the suggestion that the professional card service be fully availed of. Commends the plan of obtaining a wider discussion of all papers and urges members of the society to co-operate therewith.

Action by the House of Delegates: On motion, duly made and seconded, it was unanimously resolved that the recommendations of the Reference Committee be approved.

7. **Resolutions on Insurance**—Resolution No. 1. **Farming Out of Medical Service to Laymen.** The text of the resolution is as follows:

Whereas, Persistent reports are current that the State Compensation Insurance Fund has contracted for the medical care of injured workmen with an organization promoted and controlled by a layman and operated by him at a profit to himself, secured by a reduction of the fees regularly allowed for medical services; and

Whereas, These reports, if true, indicate a situation and a procedure which will lead to a dangerous subversion of the intent and purpose of the Workmen's Compensation Act; now, therefore be it

Resolved, That the Council of the California Medical Association be requested to investigate these reports, and that it invite the attention of the State Industrial Accident Commission and the management of the State Compensation Insurance Fund to the fact that the said State Compensation Insurance Fund, by virtue of its prestige as a state institution and the vast business which it controls, does, in effect, set the standard of industrial medical service in California, and that such a degradation of standards as is implied in any farming out to lay contractors, for profit, of the medical care of the industrially injured, can not result otherwise than in wrong and hardship to injured workingmen.

Resolution No. 2. **Physicians' and Surgeons' Panel for Industrial Accident Work.** The text of the resolution is as follows:

Whereas, An effort has already been made by the California Medical Association to devise a panel of physicians and surgeons to do industrial accident work; and

Whereas, The effort has not been successful, partly because of the difficulties of selecting the members to compose such panel; therefore be it

Resolved, That the Council of the California Medical Association renew its effort to devise such a panel by means of a questionnaire which shall require physicians and surgeons desiring to engage in industrial accident work to state their own qualifications, and to pledge themselves to abide by the standards set by the California Medical Association; and further be it

Resolved, That the Council of the California Medical Association appoint a suitable committee whose duties shall embrace, one, the devising of such a panel; two, the management of such machinery as may be required to administer such rules as are provided to govern industrial accident work; and three, the affixing of penalties for violation of such rules; and further be it

Resolved, That all regularly licensed physicians and surgeons in California be given opportunity to file answers to the questionnaire.

Copy of a suggested questionnaire is herewith submitted.

1. Name. Address. Age.
2. Graduate of what medical school? Year.
3. Specialty?
4. Experience in Industrial Surgery and Medicine. Where?
5. Associations in Industrial Accident Medicine and Surgery?
6. Contact with what Hospitals?
7. If accepted on the panel of the Industrial Accident Surgeons, do you pledge yourself to abide by the code of ethics of the American Medical Association, as published in Journal (date)?
8. Do you pledge yourself to abide by the fee schedule of the Industrial Accident Commission, and California Medical Association?
9. Do you pledge yourself to refrain from over-

charge, and over treatment for purposes of augmenting your bills?

10. Will you abide by the intent of the Resolutions (before the House of Delegates 1924) relating to Industrial Accident Medical and Surgery?
11. Do you agree to submit to adjustment of misunderstandings between yourself and Insurance Company, employer, or other physicians in matters not within the jurisdiction of the Industrial Accident Commission, by the Committee provided by the California Medical Association for such purpose?
12. Do you agree to abide by decisions of such Committee?
13. For recent graduates—
    (a) What clinical experience?
    (b) What hospital experience?
    (c) What affiliation with Industrial Accident surgeons? Give names.
    (d) Do you intend to pay considerable attention to industrial medicine and surgery?

Note—Penalties for violation shall be provided by the authorities of the California Medical Association.

Weight of each answer?

Society membership not recorded, nor required.

Resolution No. 3. **Dealers in Cut-Rate Industrial Contract Practice.** The text of the resolution is as follows:

Whereas, Certain dealers in cut-rate contract practice, in the field of industrial medicine, have been able to build up their business and to enjoy a considerable prestige, by reason of the fact that they openly boast that they retain the services of certain well-known specialists to care for cases of serious injury; and

Whereas, The activities of such dealers in contract practice are inimical to proper standards of all medical practice and, particularly, a menace to the general practitioner, taking away large numbers of his patients and substituting for the services of such general practitioner an impersonal, perfunctory, routine service, to the detriment of both the patient so taken and the general practitioner; and

Whereas, It is largely by reference of cases from general practitioners that the clientele of every specialist is built up; now, therefore be it

Resolved, That the (society or section) go on record condemning the acts of specialists who accept cases upon any terms, basis of compensation, salary or fee, from dealers in contract practice, be such dealers doctors or laymen, who take their profit by retaining a portion of the established fee of the doctor who actually renders service, or from moneys ostensibly collected for the specific purpose of paying for medical service; be it further

Resolved, That acceptance of cases from such dealers is, in effect, a most pernicious form of fee splitting and should be held good and sufficient cause for dropping the name of the specialist who continues to serve patients, referred by such dealers from the membership roll of any reputable medical organization; be it further

Resolved, (1) That the necessary steps be taken by the officers of (section or society) to give to each and every member of (section or society) the opportunity to endorse with his signature a copy of the above resolutions; (2) that a copy of the above resolutions, with signatures of all who have endorsed them appended, be published in California and Western Medicine as soon as a reasonable opportunity has been given for the specialists concerned to sign such resolutions.

Resolution No. 4. **Ethical Standing of Physicians Employed by Lay Organizations Practicing Medicine for Profit.** The text of the resolution is as follows:

The following resolution was passed by the Council of the Los Angeles County Medical Association on December 17, 1923:

"Lay organizations practicing medicine are not insurance companies. The Council considers that any member of the Los Angeles County Medical Association who works for such an organization, practicing medicine for profit, is guilty of unethical conduct. Railroads are not exploiting the medical profession; they are not soliciting and are not holding out that they have a better service than can be gotten elsewhere, and are not practicing medicine for profit."

Resolved, That the House of Delegates of the California Medical Association endorse the above resolution of the Los Angeles County Medical Association, and that it is also understood that lay organizations that attempt to conduct clinical laboratories, radiological laboratories, and services to the sick which require experienced medical direction, are hereby included within the terms of the resolution.

Action by the Reference Committee: The committee having gone over the various resolutions and matter in connection therewith, upon which some of these are based, and having attended the open meeting of the Section on Industrial Medicine and Surgery, and subsequently further discussed these questions with members interested therein, has decided that all this material had best be referred to the Council for consideration and action, and so recommends.

Action by the House of Delegates: On motion, duly made and seconded, it was unanimously resolved that the recommendation of the Reference Committee be approved.

8. **Resolution of Appreciation to the Press.**

Action by the Reference Committee: The committee recommends the adoption of the following resolution:

Resolved, That the California Medical Association hereby expresses its thanks to the press of Los Angeles for the splendid publicity given to the important work of the convention and to Mr. Celestine J. Sullivan for his services as director of publicity.

Action by the House of Delegates: On motion, duly made and seconded, it was unanimously resolved that the resolution submitted by the Reference Committee be adopted.

9. **Resolution of Appreciation to the Los Angeles Biltmore.**

Action by the Reference Committee: The committee recommends the adoption of the following resolution:

Resolved, That the California Medical Association hereby records its appreciation of the facilities afforded us at this meeting and the courtesies extended our membership.

Action by the House of Delegates: On motion, duly made and seconded, it was unanimously resolved that the resolution submitted by the Reference Committee be adopted.

On motion of Harlan Shoemaker, Los Angeles, seconded by James H. Parkinson, Sacramento, the report of the Reference Committee as a whole was unanimously adopted.

Resolution of Appreciation to the Profession of Los Angeles—James H. Parkinson, Sacramento, submitted the following resolution:

Resolved, That the visiting members desire to express their sincere appreciation of the magnificent hospitality and many courtesies extended them by the profession of Los Angeles.

Action by the House of Delegates: On motion of Parkinson, Sacramento, seconded by Victor G. Vecki, San Francisco, the resolution of appreciation to the profession of Los Angeles was unanimously adopted.

Presentation of the President—The president appointed James H. Parkinson, Sacramento, and George H. Kress, Los Angeles, to escort the incoming president, Granville MacGowan of Los Angeles, to the chair. Doctor Kress announced that Doctor MacGowan was not present, and requested that he be formally presented at the General Session tomorrow morning.

Presentation of the President-Elect—Edward N. Ewer of Oakland, president-elect, was escorted to the platform by Doctors Parkinson and Kress, and expressed his appreciation of the honor conferred upon him.

Adoption of Minutes—The minutes of this session were read and, on motion of James H. Parkinson, Sacramento, seconded by George H. Kress, Los Angeles, were unanimously approved.

Adjournment—There being no further business before the House, the meeting adjourned to meet in Yosemite at a time to be fixed by the Council.

BOARD OF MEDICAL EXAMINERS

Interesting Data Supplied by C. B. Pinkham, Secretary Board of Medical Examiners—Abstracts from their correspondence that are in each instance self-explanatory.

Communication from Special Agent Carter to Board of Medical Examiners relating to itinerant optometrists traveling about the country and swindling the unsophisticated:

"We enclose herewith a copy of a report made to us by Mr. A. M. Storch, showing the method by which two clever swindlers have reaped a harvest in California for the past two or three years.

"It is practically impossible to apprehend these two men, as they travel by automobile, pull off a job in one section, and the next day are in some other county, hundreds of miles away. We never hear of them until after they have performed some fake eye operation (usually upon some farmer in the country districts), and have moved on.

"Recently, they obtained $300 from Maxim Smith, an elderly farmer of Richfield, Orange County, Calif., who obtained a warrant for their arrest. Sheriff Sam Jernigan of Orange County holds the warrant, but is unable to locate them.

"They have various schemes for locating their victims. The one used in most cases is to call at some farm house in the country, and one of them who poses as an optician or oculist makes inquiry regarding the address of Mr. or Mrs. ——, an elderly man or woman who has some kind of eye trouble, usually stating that he has a pair of glasses to deliver to this person and has just lost the slip bearing patient's name and address. In this manner he usually obtains the names of anyone suffering from eye trouble. He then visits the one who appears to be the most prosperous, and usually makes some inquiry, casually noticing that he or she has eye trouble, and mentioning that he has with him 'Dr. Pierce,' or some other famous eye specialist, usually of St. Francis Institute, San Francisco, and that Dr. Pierce just happens to be making the trip with him for the ride, etc., and is not practicing, that he has no license to practice in this county, but that if patient wishes him to do so perhaps 'Dr. Pierce' will make an examination. 'Dr. Pierce' is then called in, bringing with him an imposing array of instruments, examines the patient's eyes, and solemnly tells him that he will be stone blind within six months. By this time the patient is usually in the mood to beg the great 'specialist' to do something for him, and finally the 'specialist' is persuaded to perform an operation—just for humanity's sake—provided, of course, that patient will say absolutely nothing about it to anyone, as he has no license and doesn't want to get into trouble. He will, of course, not charge anything, except for the "radium" or medicines used. He then puts something in the patient's eye, shows him a white foam, or something that he claims has been removed from the eye, and tells him the operation has been a great success. Then 'Dr. Pierce' figures up so much for radium, so much for medicine, etc., and the amount is usually several hundred dollars, which the poor dupe, in his gratitude to the great 'specialist' for saving him from total blindness, pays at once.

"Various names are used by these two swindlers, but in almost every case one of them poses as an oculist or optometrist and the other as an eye, ear, nose and throat specialist, sometimes from St. Francis Institute, San Francisco, and at other times from hospitals in Chicago and various other places.

"During the past three years we have made many attempts to apprehend these clever swindlers, and in one instance we reached the bank a few minutes after they had appeared to cash a check secured from an old farmer at Calabasas for a 'radium' operation.

"Perhaps if this were given publicity through the medical and other journals, it might eventually lead to the capture of these two men."

Statement of Mr. Storch regarding his parents' experience with the itinerant optometrists:

"On April 18, 1924, Mr. A. M. Storch of 1406 La Prada Park, Los Angeles, Calif., called at our office and gave the following report regarding the experiences of his father and mother with fake eye doctors who travel about the country in a blue Buick automobile.

" 'In the early part of February, three men in an automobile came to the home of my father and mother, Mr. P. H. Storch and Mrs. Eliza A. Storch, who live at Oceanside, Calif. (on Washington street just east of the ball grounds). Two of the men came into the house, while the other waited in the machine. They said that they were doctors and had charge of a hospital in St. Louis; that they were here just for the winter, that they didn't have any license to practice and weren't doing any regular practice, but just running around and doing what little good they could. They said they had heard that mother's eyes were diseased, and said they could cure her for the price of the medicine only.

" 'They took a syringe of some description and made two injections of some kind of fluid into the eye, and then removed from the eye something resembling the pulp of a grape. Then this alleged doctor said, "There it is! That is it! Now you are fixed." He then sat down and began to figure, and when he got through figuring he said the bill was just the cost of the medicine, which was $837; that the medicine had radium in it. He refused to take payment in the form of a check, and my father got cash and paid him the money. They said that on account of their not being licensed to practice here, for father and mother not to mention this to anyone at any time. The folks promised they wouldn't.

" 'About ten days or two weeks later, two other men came to the home there at Oceanside, one of them coming into the house and the other waiting in the machine. The one who came into the house inquired as to father's name and the fact of my mother's having had a treatment given her eye, and when my father said the facts were true, this man said he had something very serious to tell him; that the doctor who had performed that operation had been killed in an automobile accident, and that on his dying bed, being worried by the fact that he didn't know whether this operation had been successful or not, he had charged this fellow particularly to go and see my mother, and if the operation had not been successful the money would be returned to her. He then looked at my mother's eye and said that the operation had not been successful, that my mother would get the money, $800, returned to her; that he would cure her for $500. By my father wouldn't have anything to do with it, and that being more money than my mother had, the man agreed to perform the operation for $250. He went through some alleged operation similar to the former one, said it was all right now, and took the check for $250, which was later cashed at the bank.'

"Mr. Storch told of a similar case, which occurred last April, 1922, when these men came to a woman who had been doctoring at Oceanside without obtaining relief, and performed an operation on her eyes. Mr. Storch said:

" 'I think it was $1400 she paid them the first time. They came back in November, 1922, and had the same story regarding the man killed in an auto accident and money waiting in escrow, waiting for his affidavit if she had not been cured. He charged her $900 for the second operation. She went to the bank at Oceanside for the money, and information can probably be obtained from the bank at Oceanside as to the woman's name, etc.' "

Letter to Journal of National Association of Chiropodists relating to two recent deaths in California alleged to have resulted from improper treatment by unlicensed chiropodists:

"We are wondering whether or not you would be

interested in learning that recently there have been two deaths in California, which have been attributed to careless treatment by unlicensed chiropodists.

"Roy Finney, operating 'a flashily advertised chiropody parlor at 421-A South Main street, Los Angeles,' was alleged in January to have treated a Mr. W. C. Bowman, who wandered into Finney's place. Finney was alleged to have put Bowman's feet into an electric baking apparatus, thereafter rubbing on a salve, and the patient is reported never to have walked again, gangrene having developed and the foot amputated; later the other foot was amputated, and the patient died.

"Finney was found guilty of violation of the Medical Practice Act on the seventeenth day of April, 1924, and sentenced to pay a fine of $200 or in lieu thereof serve 180 days in the city jail of Los Angeles, from which judgment defendant gave notice of appeal.

"The other case just reported is that of Ed E. Collins, an unlicensed itinerant chiropodist, who recently removed a corn from the foot of Frank C. Counlon. 'A short time after the operation, blood poisoning set in, Dr. P. F. Page was called, and took charge of the case, but the patient got worse and died April 9. Dr. Page says he died as the result of the operation performed by Collins.' Collins has disappeared, and cannot be located.

"The above is a strong argument in favor of employing only licensed chiropodists, and is submitted to you for whatever interest may be attached thereto."

Notes on the question of repealing the provision for the annual tax, by C. B. Pinkham, secretary Board of Medical Examiners:

Our attention has been called to the editorial on page 114 of the March, 1924, issue of California and Western Medicine, wherein suggestion is made that the League for the Conservation of Public Health introduce legislation to repeal the annual tax.

It is our impression that such an action would be shortsighted policy for the following reasons:

We believe that the $2 annual tax paid by those who are licensed to practice in the State of California is not particularly burdensome financially and it does afford a means whereby an absolutely accurate check is kept on those who are legally entitled to practice medicine, being of vast assistance to the federal authorities in the enforcement of the Harrison Narcotic Act, as well as other agencies both of the federal and state government.

Harking back to the time when the undersigned was appointed secretary of the Board of Medical Examiners in February, 1913, we recall the chaotic state which presented itself, for there was no available record to determine who of the many thousand licentiates of the State of California were dead, nor to accurately determine who were legally practicing. The Board of Medical Examiners did not publish a directory; however, such a volume was distributed by the medical society to its members and the volume contained names of individuals who were not licensed to practice medicine in the State of California. The volume had no particular standing legally in that it was not an official state publication.

Since the "diploma mill" scandal was presented to the public in October, 1923, many states have determined the value of an annual registration and legislation to that effect has been agitated.

The State of New York and the State of Illinois are fair samples of the chaotic condition incident to having no accurate check on licentiates.

There is now pending before the legislature of the State of New York legislation tending to correct this evil. U. S. Senator Copeland, former health commissioner of New York, is one of the strong proponents of the annual tax or annual registration feature, claiming that it is the only method whereby accurate check can be kept on those who are legally entitled to practice and those who are practicing without authority.

The provisions of Section 3 read in part as follows:

> "The receipts of the said annual tax referred to herein shall be paid into the Contingent Fund of the Board of Medical Examiners of California and after the expenses of issuing said directory have been paid, in the event that there shall be a surplus of such funds, the board may from time to time in its discretion apply said surplus for **any other expenses** incurred by the board under the provisions of this act."

Referring to page 231 of the Directory of 1923 you will note the income from the annual tax was $17,071.02 and on page 232 you will note that the directory expenditures amounted to $6,356.60, leaving a balance of $10,714.42, which heretofore has been expended for investigation and enforcement.

Our investigation departments, both north and south, are functioning very satisfactorily and we are receiving cordial support from the district attorneys in the various counties; hence we believe that our report for the year 1924 will show commendable activities.

If a tax of $2 proves financially burdensome, may we suggest that a reduction be made, rather than that the statute be repealed?

Letter to P. D. Doucett, Aberdeen, Wash., regarding the "Therapeutic Sunbeam—Kendall System":

"We have your written statement that you are qualified as a therapist, using the 'Therapeutic Sunbeam—Kendall System,' and we must confess this is a new one to add to our list of over thirty-seven varieties of drugless practice.

"It is with interest that we read your pronunciamento of this 'therapeutic sunbeam' system, which reads as follows:

" 'Therapeutic Sunbeam, with a shot from the tips of the fingers into the pulse—Opens the main artery. Gives a free circulation of the blood. A test and a perfect setting of the sexual organs. Leads to the main simple of the head that lies in Pearly with the brains. A medical treatment as well with personnel right. Capacity at 13,000. Direct therapeutic massage in a manipulation of the joints. The movement includes punching, rubbing or friction. Children a specialty. Experience since 1903 under this one theory.' (Signed) P. D. Doucett, Specialist.

"If we have not correctly quoted your letter, please advise us at once and also inform us whether you are licensed to practice in the State of Washington; if so, the kind of license you hold and whether you have had any institutional training or have you yourself developed this system as outlined above."

Communication to Special Agent Carter from C. B. Pinkham, secretary Board of Medical Examiners, regarding case of Arthur R. Timme, M. D.:

"We are quite interested in your report that Arthur R. Timme, recently arrested in Los Angeles charged with violation of the State Poison Act, is said to have prescribed more than 10,000 grains of morphine per month for the last two years.

In view of your statement that Arthur R. Timme would fill out narcotic prescriptions for patients or addicts and leave them with the office girl, Miss O'Brien, and that when a patient came in for a prescription and wanted a 'hypo' needle, Miss O'Brien would add 'one' hypo needle to the prescription, it is our impression that this procedure on the part of Miss O'Brien lays her liable to prosecution for violation of the Medical Practice Act, and we wish you would suggest the matter to Dr. Campbell, legal committeeman in Los Angeles, with the idea of filing a complaint charging Miss O'Brien with violation of Section 17, provided, of course, you have sufficient evidence.

"We hold that Miss O'Brien would have no more authority to add a hypodermic needle to the doctor's prescription than she would to add some drug to a prescription already written by Dr. Timme. However, the courts may not agree with this interpretation, but it would be well to take some action to discourage any such procedure on the part of office nurses."

COUNTY NEWS

Two Counties 100 Per Cent in Paid-up Dues—It is with pleasure we announce that San Mateo County Medical Society and Sonoma County Medical Society have no delinquent members, but every member is fully paid up for this year, a record to be proud of.

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline Nusbaumer, secretary)—The Alameda County Hospital staff presented the program as arranged by L. P. Adams at the regular monthly meeting of the Alameda County Medical Association.

"The Bond Issue for the Completion of the Highland Hospital," by R. G. Broderick.

Case Reports—Diffuse carcinoma of the liver, by Q. O. Gilbert. Epilepsy due to pollen allergy, by A. H. Rowe. Peculiar cartilage lesion in the heel analogous to Perthe's disease in the hip, by F. J. Carlson.

Papers—"The Sliding Hernia—Report of Cases," by F. H. Bowles. "Methods and Results in Partial Gastrectomies," by Dexter N. Richards. "Observations on the Effect of Posture in Some Types of Low Back Pain," by Harold H. Hitchcock. "The Use of Mercurochrome and Gentian Violet in the Treatment of Infections," by Gertrude Moore.

These subjects provoked a general discussion, M. L. Emerson, S. H. Buteau. Q. O. Gilbert, N. A. Cary, R. G. Van Nuys, taking part. The attendance was good, and the refreshments aided the enjoyment of good fellowship.

Rat-bite fever by William Mills, and the use of radium in uterine fibroid by William H. Sargent, were the subjects discussed at the monthly meeting of the Merritt Hospital staff, held May 5 at 8:15 p. m.

Since the beginning of 1924 a program of mental hygiene for children has been undertaken in the Oakland-Berkeley district. Three clinics are now under way—at the Oakland Health Center, the Oakland Baby Hospital, and at the Berkeley Dispensary. The clinic at the Baby Hospital is a "Habit Clinic" fashioned on the lines of the Thom clinics in Massachusetts, while the other two clinics are child guidance clinics, dealing with juvenile court cases, school cases, conduct problems, mental deficiency, etc.

The work at the Oakland Health Center is carried on under V. H. Podstata and Sydney Smith, while the work of the other two clinics is directed by Smith. Uniform records are kept in the three clinics. A medical psychologist and a social service worker are included in each clinic.

In addition to the actual clinic work, a fairly comprehensive program of education is being outlined and carried out, including talks on mental hygiene to visiting nurses, teacher-parent associations, and club groups.

The regular monthly meeting of the general staff of Fabiola Hospital was held at the hospital April 29. The attendance was large.

The bond issue for the new Highland Hospital was discussed and a liberal donation was made by the staff to defray the campaign expenses.

Mrs. J. P. H. Dunn, president of the Fabiola Hospital Association, requested the staff to lend their moral as well as financial support to the new Peralta Hospital Association, or any other hospital enterprise of like merit.

The program for the evening was as follows:

"Physical Signs Produced by Foreign Bodies in the Bronchial Tubes," by Clifford D. Sweet; discussed by F. M. Shook, E. A. Majors, George McClure and O. R. Etter. "An Unusual Infection in Mastoiditis," by F. M. Shook; discussed by George McClure and Roderick O'Connor. "Oral Sepsis," by W. E. Rideout; discussed by C. D. Sweet and W. R. Bell. "Lethargic Encephalitis," by H. D. Bell; discussed by A. H. Rowe, E. W. Goodman, R. L. Richards, and Daniel Crosby.

At the monthly meeting of the Alameda County Hospital staff, the evening was devoted to the discussion of house cases and proved very instructive.

Providence Hospital staff omitted its meeting, on account of date conflicting with meeting of the state association.

Bonds for completion of Highland Hospital carried, making it possible to complete the hospital within two years.

CONTRA COSTA COUNTY

Contra Costa County Medical Society (reported by L. St. John Hely, secretary)—The regular monthly meeting of the society was held at the residence of the superintendent of the County Hospital at Martinez on Saturday, April 26.

The lecture by Albert H. Rowe of Oakland was confined to asthma and hay fever and the causes and cure. A free discussion followed by many of the members. It was demonstrated that many of the common skin diseases, such as eczema, were caused by certain foods acting as poisons on this particular individual; when that particular food was withdrawn from the diet the disease immediately disappeared. In nearly all these cases individuals can be immunized and return to this food element. Tests are made to find which food or vegetable pollen is causing an asthma, then they are vaccinated (so-called) against this poison, thus removing the effect of the particular poison. The lecture was very exhaustive and enjoyed by the members. A dainty lunch was served by the hostess. The following members were present: George W. Sweetser, E. Merrithew, Hall Vestal, C. R. Leech, Denninger-Keser, J. Emmett Clark, E. B. Fitzpatrick, John Beard, F. Lisle Horne, H. L. Carpenter, L. St. John Hely, S. H. Marks, Wise, L. A. Clary, Clara Spalding, J. B. Spalding.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—The regular meeting of the Fresno County Medical Society was held at the Hotel Fresno on May 6. A banquet preceded the meeting. Members present were as follows: Aller, Anderson, Barrett, Bell, Binkley, Broemser, Collins, Couey, Cross, Craycroft, Drake, Dearborn, Ehlers, Ellsworth, Hare, Jamgotchian, Kjaerbye, Konigmacher, Lamkin, Larson, G. L. Long, Luckie, Madden, Manson, Maupin, Miller, Montgomery, Mordoff, Morgan, Milholland, McConnell, McPheeters, Newton, Nedry, Peterson, Pettis, Pomeroy, Rosson, Schottstaedt, Sheldon, Staniford, Stein, Scorboro, Thompson, Tillman, Tobin, Vanderburgh, J. R. Walker, G. W. Walker, Wiese, and Willson.

Visitors—Brunn, Kruse, Seligman, H. O. Collins, Betts, Preston, and Calahan.

Fred H. Kruse, of the University of California Medical School, presented a very interesting paper on "Peptic Ulcer from the Medical Standpoint." He gathered together in his paper the essential points in regard to the disease and gave an excellent summary of the subject. He considered etiology from the standpoint of the two great schools of thought. He enumerated the conditions which required surgical intervention. The treatment he took up also according to the two schools of thought, Sippy and Smithies, the former using alkaline treatment, and the latter rest and cutting down of the secretions of the stomach. He discussed alkalosis in relation to the alkaline treatment.

Harold Brunn, also of the University of California Medical School, spoke on the surgical aspect of peptic ulcer. As to etiology, he said that there is much that is not known about peptic ulcers. Focal infection is a very important part and must be removed to get a permanent cure. Each case must be considered individually, either medically or surgically. The type of operation done should be determined at the operating table. In speaking of the surgical indications, he said that gastroenterostomy was taking a second place in the surgical care of peptic ulcer. Cauterization is better than excision in small ulcers. Large ones should

be excised with resection of the stomach. Duodenal ulcers are best treated by the Finney or Horseley operation, the latter being very good. The cases of perforating ulcers seen at the San Francisco Hospital can be divided into two classes: (1) those with an old history, and (2) those coming on suddenly with great pain and shock without any previous digestive disturbances. The latter are probably embolic and the perforation leaves a clean hole in the wall of the gut.

Brunn also presented the subject of diverticulitis before the staff of the General Hospital at noon on May 6. He had pathological specimens and x-rays to illustrate his paper, besides having several histories of such cases. This was a very instructive talk, as few of the staff had ever seen many cases.

KERN COUNTY

Kern County Medical Society (reported by H. W. Moore, secretary)—The regular meeting was held at the Kern County Hospital the evening of April 17, President P. J. Cuneo presiding. Thirteen members present.

Ellis Jones and Ross Sutherland, of Los Angeles, visitors.

Moore, Rogers, and Veon were instructed to formulate an obituary to the memory of S. F. Smith, who died at Bakersfield April 13, 1924.

Ellis Jones gave a talk on "Practical Problems of Orthopedic Surgery," supplemented by lantern slides. He brought out and discussed clubfoot, congenital dislocation of the hip, arthoplastics, bone inlays, Perthes' disease, arthritis, and many other orthopedic problems.

MARIN COUNTY

Marin County Medical Society (reported by J. H. Kuser, secretary)—The society met on April 24 at the office of W. Jones in San Rafael, with the following members present: Clark, Dufficy, Furlong, Hund, Jones, Landrock, Kuser, Mays, Larson. The guest of the evening was Ellen Stadtmuller, who requested the interest of the members in the examination of children in the pre-school age.

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—This society met May 6 at San Bernardino County Hospital, with twenty-three present, fifty-three absent, and ten guests. The program was as follows:

"Indications and Contra-indications for Caesarean Section," by Titian Coffey of Los Angeles. "Classical Caesarean Section; Technique and After Care," by Peter O. Sundin of Los Angeles. "Low Cervical Caesarean Section; Technique and After Care" (with Lantern Slides), by John Vruwink of Los Angeles; discussion will take place after all three papers have been read and will be opened by W. A. George.

Luncheon at 10:30.

This program was given at a joint meeting of the Los Angeles County Medical Society with the Obstetrical Section in Los Angeles at their last meeting, and we are indebted to that society for its repetition.

The appeals of the secretary for assistance in enrolling new members have at last reached one man. J. B. Craig of Ontario forwarded the names of seven possible applicants. Perhaps you cannot send as many, but you can try and your efforts would be appreciated.

Loma Linda Sanitarium and Hospital Accredited—Under date of May 13 the Council on Medical Education and Hospitals of the American Medical Association advise that they have placed the Loma Linda Sanitarium and Hospital, Loma Linda, California, on the list of accredited hospitals of California. It is always a pleasure to physicians, and would be to the general public had they full appreciation of what it all means, to see one hospital after another advance its work to a plane where it is carried throughout the world as an accredited agency of scientific medicine.

SAN DIEGO COUNTY

San Diego County Notes (reported by Robert Pollock)—A liberal delegation of San Diego County Society members attended the state meeting in Los Angeles, several of whom were represented on the scientific programs.

A scientific program of high order was expressed before the monthly meeting of the Naval Hospital staff April 26, when Ellis Jones of Los Angeles read an excellent paper on orthopedics, and Arthur E. Smith, also of Los Angeles, read a comprehensive and thoughtful paper on "Diagnosis and Treatment of Oral Pathologic Conditions." These monthly gatherings at the Naval Hospital in Balboa Park are greatly appreciated by the members of the County Medical Society, who are always extended the courtesy of an invitation by Captain Wieber. Not only are the papers presented of a high order by men of authority from outside cities, but the sociability, coupled with the serving of light refreshments, tend to add materially to the enjoyment of the evening.

At the regular meeting of the county society of April 22 C. E. Howard presented an excellent paper on the differential diagnosis between biliary tract infections and peptic ulcer. This very important diagnostic field was carefully mapped out and classified into its various phases. The discussion taken up from the x-ray standpoint, that of the medical and the surgical diagnosis, respectively, was entered into by Kinney, Pollock, and Burger.

The bulletin of the San Diego County Medical Society, in its May 9 number, presented a survey of the available hospital beds in and about San Diego, tending to show the city's present inadequacy in this matter. It behooves all cities to take an occasional inventory of their ability to take care of their citizens needing hospitalization, and to consider their fullest capacity if suddenly confronted by serious epidemic.

SAN FRANCISCO COUNTY

Proceedings of the San Francisco County Medical Society (reported by J. H. Woolsey, secretary)—During the month of April, 1924, the following meetings were held:

Tuesday, April 1—Section on Medicine—Some phases of the work of the Council of Pharmacy and Chemistry, by Felix Lengfeld. The rationale of hexamethyleneamine therapy, by P. J. Hanzlik.

Tuesday, April 8—General Meeting—The present status of hoof and mouth disease as it affects San Francisco, by William C. Hassler. The importance of biochemical research to clinical medicine, by Carl L. A. Schmidt.

Tuesday, April 15—Section on Industrial Medicine—The doctor under the compensation law, by Mr. D. W. Burbank. Some problems in compensation practice, by M. R. Gibbons. The doctor in industrial medicine, by E. F. Glaser.

Tuesday, April 22—Section on Eye, Ear, Nose, and Throat—Clinical meeting at the University of California Hospital.

Tuesday, April 29—Section on Urology—Gonorrhea and responsibility, by Melville Silverberg. Experimental hydronephrosis, by Frank Hinman and A. B. Hepler.

Franklin Hospital (reported by Ewald H. Angerman, secretary)—The regular monthly meeting of the Franklin Hospital Clinical Society was held Monday, April 28, at the hospital, J. Wilson Shiels presiding. An interesting and varied program was presented by the following:

Demonstration of an unusual case of septicemia and pyemia, following a slight trauma in an apparently robust adult, by Alfred Roncovieri. An atypical case of syphilis, chiefly involving the mediastinal contents, by J. Wilson Shiels. Two unusual cases of fracture of the femur, by Conrad Weil. A Case of recurrent formation of ureteral calculi, by George W. Hartman. Selected pathological specimens, both

gross and microscopic, of the skin, intestine, and uterus, by Carl Werner.

The numerous discussions that followed this program gave evidence that the evening spent was decidedly educational.

St. Luke's Hospital Clinical Club (reported by H. H. Johnson)—At the meeting held on May 6 Z. E. Bolin spoke on "What We Know of Blood Chemistry," stating that chemistry in medicine does not deal with what was formerly called physiologic chemistry, but takes in with it at the present day every branch of chemistry and with it more or less of physics. It would be hard, if not impossible, to think of an organ or system the diagnoses of the disorders of which are not aided by blood chemistry. It is used in diseases of the lungs, the stomach, the liver, the thyroid, the kidneys; in organic neurological conditions; in tests to determine the operability of patients from the standpoint of kidney function; in acidosis; in the estimation of coagulation time of blood, and determination of the onset of uremia. It is used by internists, obstetricians, and dermatologists. Many and varied tests have been evolved by the laboratory man; however, it is the interpretation that counts. There is absolute need for co-operation between the pathologist and clinician, and in this interpretation and its practical application the greatest progress in the next few years will be made.

Many tests and their practical application were given in detail, and the use of the resources of blood chemistry in its methods of diagnosis and prognosis was strongly urged.

St. Joseph's Hospital Staff Active (reported by Sister M. Sylvia, superior)—Hartley F. Peart, general counsel for the California Medical Association, spoke on "Specific Obligations of Physicians Under the Law" before St. Joseph's Hospital staff, of San Francisco, on May 21. He prophesied an increase of laws and regulations. Under licensure, proper conduct is demanded and derelicts, such as those guilty of criminal abortions, improper return of reportable matters and unethical behavior, are subject to revocation. Federal obligations deal with alcoholic and narcotic prescriptions, the former being limited as a remedy, except under "grave emergency." Orders for either are not refillable. The state poison law restricts the use of narcotics also, except for incurables, if the pharmacy board is notified. The Sheppard-Towner act makes it a duty to report all pregnancies, but the consent of patients should be obtained, so that there will be no liability for divulging confidential information. The general requirement is that a practitioner should use the skill and care exercised by the average of the same school in the locality. No guarantee of cure or prevention of suffering is contemplated by law. Consent for an operation is required.

Captain Duncan Matheson talked on "Local Regulations Affecting Doctors." He also regretted the increasing of legal enactments. An appeal for the co-operation of physicians in all lesions which are self-inflicted or caused by others was made. Dying statements should be made early, as also identification of accused by victim. In poisonings, preserve all evidence. Report lost certificates of practice.

G. W. Pierce illustrated "Plastic Surgery" with lantern slides and patients. Tubular grafts and epithelial inlays are used. Operations for keloids, scars, saddle nose, hare lip, and rhinophyma were shown, as well as transplantation of rib cartilage. Andrew Nagy reported a case of intussusception.

The program for June 11 follows: "Modern Management of Labor Cases," by A. B. Spalding, and "Operations in Obstetrics," by Reginald Knight Smith.

YUBA-SUTTER COUNTIES

Yuba-Sutter Counties Medical Society (reported by A. L. Miller, secretary)—Election of officers of the Yuba-Sutter Counties Medical Society for the coming year resulted as follows: John Duncan, Marysville, president; R. G. Scribner, Hammonton, secretary.

Utah State Medical Association

PROGRAM THIRTIETH ANNUAL MEETING OF THE UTAH STATE MEDICAL ASSOCIATION, LOGAN, JUNE 19-20-21, 1924.

One can ill afford to miss a single paper on this most excellent program, as they are all written by men who come from the largest clinics in the United States and rank among the most eminent men in their fields in America.

In order that we may get their best thoughts and that no time may be wasted, the Program Committee has decided to eliminate discussions, except at the request of the president. However, the free asking of questions, if they come within the time allotted to the paper, is encouraged.

Meetings will be held in the Agricultural Engineering Building at the Agricultural College, where members will register.

The Council will meet at 9:30 a. m., Thursday, and daily thereafter. The House of Delegates at 10 a. m., Thursday, June 19, and at 8 a. m., Friday, June 20, at the Agricultural College.

Cafeteria luncheon will be served daily at the Agricultural College during the session.

Papers and addresses delivered at this meeting shall be the property of the association, and shall be handed to the secretary as soon as read.

The visiting ladies will be entertained by the ladies of Logan, as follows:

Luncheon at the Blue Bird followed by cards at 7:30 p. m., Thursday.

Mrs. Joseph R. Morrell's reception, 3 to 6 p. m., Friday.

Valley drive and basket lunch at Agricultural College campus Saturday noon.

The Committee on Post-graduate Work are now active and are preparing a course in post-graduate work for this fall, and the present plan contemplates courses in both surgery and medicine.

Officers

President, Joseph R. Morrell, Ogden; president-elect, Sol G. Kahn, Salt Lake City; first vice-president, L. B. Laker (deceased), Eureka; second vice-president, Homer E. Rich, Vernal; secretary, William L. Rich, Salt Lake City; treasurer, F. L. Peterson, Salt Lake City; councilors, R. R. Hampton (1924) Second District, Salt Lake City; E. G. Hughes (1925), Third District, Provo; W. L. Smith (1924), First District, Brigham City; delegate to A. M. A., E. M. Neher, Salt Lake City, 1924; alternate delegate to A. M. A., A. C. Behle, Salt Lake City, 1924.

Standing Committees

Scientific Work—Clarence Snow, chairman; M. M. Critchlow, vice-chairman; Ernest Van Cott, William L. Rich (secretary).

Public Policy and Legislation—John Z. Brown, chairman; D. C. Budge, F. A. Goeltz, J. R. Morrell (president); William L. Rich (secretary).

Arrangements—D. C. Budge, chairman; T. B. Budge, P. W. Eliason.

Special Committees

Education and Post-graduate Work—R. O. Porter, chairman; Hyrum L. Marshall, W. R. Calderwood.

Health and Public Instruction—Eugene H. Smith 1924, chairman; Fred Dunn (1925), C. E. McDermid (1926), Willard C. Christopherson (1927), E. M. Neher (1928).

Advisory on Hospitals—Ezra C. Rich (1924), chairman; E. F. Root (1925), J. W. Aird (1926), J. W. Hayward (1927), A. C. Behle (1928).

Industrial Medicine—R. S. Allison, chairman; J. C.

Landenberger, chairman; T. F. H. Morton, L. F. Hummer, C. L. Sandberg.

Necrology—D. L. Barnard, chairman; J. A. Phipps.

Professional Welfare and Ethics—J. C. Landenberger, chairman; H. P. Kirtley, F. K. Bartlett, H. J. Merrill.

Medical Department University of Utah Advisory —R. R. Hampton, chairman; F. A. Goeltz, Clarence Snow, D. C. Budge, E. G. Hughes, J. W. Aird, J. C. Landenberger, E. H. Smith, E. F. Root, H. P. Kirtley, C. E. McDermid, Homer Rich, Joseph R. Morrell, Sol G. Kahn, president-elect; William L. Rich, secretary.

House of Delegates

President, Joseph R. Morrell; president-elect, Sol G. Kahn; secretary, William L. Rich; councilors, R. R. Hampton, E. G. Hughes, W. L. Smith.

Boxelder County—Odeem Luke; alternate, R. A. Pearse.

Cache Valley—D. C. Budge, W. O. Christiansen; alternates, Eugene Worley, H. R. McGee.

Carbon County — William T. Elliott; alternate, Charles Ruggeri.

Salt Lake County—(Holdovers: E. F. Root, chairman; John Z. Brown, T. A. Flood, F. A. Goeltz, F. F. Hatch, E. D. Hammond, J. P. Kerby, W. G. Schulte, J. E. Tyree.) D. L. Barnard, A. C. Behle, W. R. Calderwood, V. J. Clark, M. M. Critchlow, A. A. Kerr, H. P. Kirtley, J. C. Landenberger, E. M. Neher, C. L. Shields, F. B. Steele, W. R. Tyndale, Ernest Van Cott; alternates, T. B. Beatty, William F. Beer, Clifford J. Pearsall, David E. Smith, F. E. Straup.

Utah County—J. R. Anderson, Fred Dunn, G. E. Christensen, J. W. Hagan; alternates, J. W. Aird, J. Karl Beck, O. H. Maybe, Arnold Robinson.

Uinta County—Homer E. Rich.

Weber County—E. R. Dumke, W. J. Wright, E. I. Rich, A. Z. Tanner; alternates, H. W. Nelson, E. P. Mills, W. A. Whitlock, E. M. Conroy.

Program

Thursday, June 19

9:30 a. m.—Meeting of the Council.

10 a. m.—Meeting of the House of Delegates.

12 noon.—Lunch at Agricultural College Cafeteria.

2 p. m. — "Five-Minute Address of Welcome"— President Elmer G. Peterson, Utah Agricultural College.

2:05 p. m.—"General Infections and Their Surgical Significance" — Dean Lewis, Rush Medical College, Chicago.

3 p. m.—"Non-purulent Nephritis" (illustrated)— A. S. Warthin, University of Michigan, Ann Arbor.

4 p. m. — "Studies in Cardio-renal Vascular Diseases"—L. G. Rowntree, Mayo Clinic, Rochester, Minn.

4:45 p. m.—"The Present Status of Our Knowledge of Vitamins"—E. V. McCollum, Johns Hopkins University, Baltimore, Md.

7 p. m.—Annual banquet, Hotel Eccles. Tickets $3, stag. The president's address will be delivered, as well as toasts, and there will be a general relaxation from the more serious aspects of medicine.

Friday, June 20

8 a. m.—Meeting of the House of Delegates.

9 a. m.—"Localization of Spirocheta Pallida in Human Tissues" — A. S. Warthin, University of Michigan, Ann Arbor.

10 a. m.—"Clinical and Functional Diagnosis of Liver Diseases"—L. G. Rowntree, Mayo Clinic, Rochester, Minn.

11 a. m.—"Goiter Survey in Utah"—James Wallace, Rockfeller Foundation, New York.

11:30 a. m.—"Present Status of Our Knowledge of the Etiology of Rickets"—E. V. McCollum, Johns Hopkins University, Baltimore, Md.

12:15 noon—Lunch at Agricultural College Cafeteria.

1 p. m.—Meeting of the House of Delegates.

2 p. m.—"Constitutional Entity of Grave's Disease, Toxic Adenoma and Toxic Goiter"—A. S. Warthin, University of Michigan, Ann Arbor.

3 p. m.—"Clinical Manifestations and Treatment of Encephalitis Epidemica" — John B. Doyle, Mayo Clinic, Rochester, Minn.

4 p. m.—"Reconstructive Surgery" — Dean Lewis, Rush Medical College, Chicago.

5 p. m.—Meeting of the Council.

Basket lunch, Logan Canyon, 5 to 7:30 p. m. Guests of the Cache Valley Medical Society.

8 p. m.—Public meeting at the Tabernacle, under the auspices of the Utah State Medical Association, speakers to be announced during the session.

Saturday, June 21

9 a. m.—"Intestinal Obstruction" — Dean Lewis, Rush Medical College, Chicago.

10 a. m.—"Nutritional Aspect of Preventive Dentistry"—E. V. McCollum, Johns Hopkins University, Baltimore, Md.

10.45 a. m.—"Recognition of the Psychoneuroses" —John B. Doyle, Mayo Clinic, Rochester, Minn.

11:30 a. m.—Subject to be announced—Thomas D. Wood, Columbia University, New York.

"Causes and Treatment of Hay Fever"—George M. Fister, Henry Ford Hospital, Detroit.

Report of the House of Delegates.

Installation of officers.

The Council will meet immediately following adjournment.

Proposed Change in Amendment to the Constitution and By-Laws of the Utah State Medical Association

It is proposed to amend the constitution and by-laws of the Utah State Medical Association, so that the calendar year shall be the fiscal year. As the amendments now read, the fiscal year ends March 31, and it is proposed to have it end December 31. This will mean that all dues for the calendar year must be paid January 1 for that calendar year, and all dues not paid by that time will constitute a suspension of the members on the rolls of the Association. The members may be reinstated by payment of dues at any time during the calendar year.

The present by-laws provide that a member shall not be suspended before March 31, so that members are carried on a three months' period of grace. The American Medical Association has adopted the calendar year for its fiscal year, and has advised the various state associations to do the same. This matter was referred by the last meeting of the House of Delegates to the Council for consideration and recommendation. The Council has considered and now recommend to the association that such action be taken.

If the proposed amendment is adopted, it will change the words in Chapter 9, Section 11, from "March 31" to "January 1," and in the same paragraph, Section 13, the words "on or before March" to "on or before January 1" in two places, namely: line 7 and line 13.

The above has been published in our official journal California and Western Medicine, and is brought to the attention of the members for the last time, and will now be considered by the House of Delegates.

Exhibits

There will be commercial exhibits by the various manufacturers of surgical supplies, including new features in X-ray and Helio-Therapy. These exhibits will be shown in rooms adjoining the lecture room at the Agricultural College.

Announcements will be made at the meeting regarding sight-seeing trips.

Cache County Medical Society (reported by W. H. Budge, secretary)—The regular monthly meeting of the Cache Valley Medical Society was held at Logan at the Chamber of Commerce, May 5, at 7:30 p. m.

M. C. Lindem of Salt Lake City read a paper on "Ethylene Gas." H. R. McGee of Logan read a paper on "Pyelitis in Infants and Children." James Wallace of Salt Lake City, who is representing the State

Board of Health, gave a talk on goiter among school children in Utah.

Minutes of the Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—The regular meeting of the Salt Lake County Medical Society was held at the Commercial Club, Salt Lake City, Utah, Monday, April 28. Sixty-three members and three visitors were present. Meeting was called to order at 8:05 p. m. by President A. A. Kerr. Minutes of the previous meeting were read and accepted without correction.

No clinical cases were presented.

V. J. Clark gave a paper on "Dysmenorrhea," giving the causes and treatment, both medical and surgical. The paper was discussed by W. R. Maddison, A. N. Minear, George W. Middleton, and Sol G. Kahn.

B. E. Bonar presented a paper on "Water Requirements in Infancy." He described the symptoms of water retention, and dehydration with its end-result acidosis, and described the treatment. This paper was discussed by Helmina Jeidell.

James Wallace, state epidemiologist for the State Board of Health, formerly with the Rockefeller Health Foundation, discussed "Goitre as a Public Health Problem," and gave some interesting facts as to the goitre survey now in progress in Utah. This paper was discussed by T. B. Beatty, George W. Middleton, A. N. Minear, and John Z. Brown, who commended Beatty for his untiring efforts in getting the goitre survey started for this state. J. F. Critchlow also discussed the paper, and moved that the society endorse the efforts and the objects of the State Board of Health and stand back of the present plans in regard to the prevention of goitre; that it deny the propaganda that seems to be opposed to it; and that it deplore any obstruction placed in the way of the survey. Seconded and carried.

J. J. Galligan suggested that the president cause to be published articles to combat the false ideas that seem to be prevalent in regard to the survey. F. E. Straup moved that a committee of three, consisting of the president, secretary, and J. F. Critchlow, be appointed to carry out Galligan's suggestion. Seconded and carried. Discussion of the survey was continued by J. R. Llewellyn, S. C. Baldwin, C. J. Albaugh, and T. B. Beatty.

A letter was read from Gaylen S. Young, chairman of the Fourth Annual National Convention of the Disabled American Veterans of the World War, in which he asked for the appointment of a committee of five to attend meetings with the Fraternal Liaison Committee, to assist in providing welcome and entertainment for the disabled veterans in their coming convention next June. W. R. Calderwood moved a committee of five be appointed, as suggested in the letter. Seconded and carried.

A letter from F. M. Whitney, assistant secretary, Heber J. Grant Company, general agents for the Hartford Accident and Indemnity Company, was read in which it was stated that the Hartford Company would issue the identical policy which had been approved at the last meeting, with the special privileges, for $20 per physician. J. F. Critchlow discussed the letter and moved that the secretary be instructed to communicate with Heber J. Grant Company that the society has adopted the policy of the Aetna Company. Motion was seconded. It was discussed by J. C. Landenberger, who suggested that all the companies be given a chance to bid for the policy. J. F. Critchlow stated that he was willing to withdraw his motion if a substitute motion was made to reconsider the action taken by the society at its last meeting, and an invitation was accorded the Aetna Company for a hearing, if it were agreeable to the seconds. Sol G. Kahn also discussed the proposition. Motion was put to a vote. Motion lost. J. C. Landenberger moved that the society reconsider the insurance question. Seconded and carried.

J. F. Critchlow moved that the same Insurance Committee be appointed. Seconded and carried.

W. R. Calderwood reported on the Emergency Hospital for the Committee to Investigate Charity Institutions. The committee recommended that the Committee on Public Health and Legislation cooperate with the city physician to instruct the public as to the purposes of the emergency hospital. J. J. Galligan said he would welcome any suggestion that would make for a greater degree of efficiency in conducting the City Emergency Hospital. J. Z. Brown moved that the report of the committee be adopted. Seconded and carried. M. M. Nielson suggested that physicians individually give their suggestions and recommendations to the committee.

Minutes of Meeting of May 12—The meeting was held at the Commercial Club, Salt Lake City, May 12, 104 members and five visitors being present. Meeting was called to order by President A. A. Kerr. Minutes of the previous meeting were read and accepted without correction.

B. F. Robbins presented a clinical case, seventy-three years old, with cancer of the right orbit, twenty years' duration, on which some excellent surgical work had been done. Discussed by J. F. Critchlow.

George F. Roberts read a paper on the "Use of Sodium Thiosulphate in Metallic Poisoning." The therapeutic effects in cases of arsenic, lead and mercury poisoning were described, with excellent results in the lead and arsenic cases, but not so good in the mercury cases. This most interesting paper was discussed by T. C. Gibbson, J. S. Alley, and H. S. Scott.

Fuller B. Bailey read a paper on "Ulcerative Colitis," giving the etiology symptoms, x-ray and laboratory findings, and the treatment. This very interesting paper was discussed by W. L. Lindsay and G. G. Richards.

Ernest Van Cott reported progress for the Committee on Public Health and Legislation.

Sol G. Kahn reported for the Committee on Liability and Insurance, in which it was requested that the society decide at this meeting whether they would accept the Aetna policy at $25 per physician or the Hartford policy at $20. L. W. Snow moved that the society accept the Hartford policy, if the provisions as suggested by the committee were incorporated in the policy. Seconded. Discussed by H. S. Scott, J. F. Critchlow, Ralph Richards, E. M. McHugh, and Sol G. Kahn. G. G. Richards offered a substitute motion that the society vote at this meeting, and the company being chosen that received the nighest number of votes. Accepted and seconded. Discussed by F. F. Hatch, J. Z. Brown, and Byron Reese. Motion carried. The Aetna company was chosen by the society, forty-nine members wishing the Aetna, and eleven members, the Hartford. S. C. Baldwin moved that the committee be authorized to make a contract with the Aetna company at once. Seconded and carried.

L. J. Paul reported for the committee to act with the Fraternal Liaison Committee of the Disabled American Veterans of the World War. He stated that a promenade would be held at the Hotel Utah, May 22, tickets to be $1.

W. R. Tyndale reported for the Library Committee, stating that the Loan Library shelves were up and the committee was anxious to accept books loaned by the members of the society.

President A. A. Kerr reported for the committee appointed at the last meeting to publish articles to combat the false ideas that seemed to be prevalent in regard to the goitre survey now being conducted by the State Board of Health in Utah. He read the article published in the local press, May 3 and 4, regarding this matter.

There followed a friendly discussion of the goitre survey in Utah, in which the views of the University and the State Board of Health were aired, the discussion being entered into by H. J. Sears, J. F. Critchlow, E. G. Gowans, T. B. Beatty, G. G. Richards, Clarence Snow, Sol G. Kahn, Byron Reese, Joseph R. Morrell, R. W. Fisher, and Ralph Richards, the result of which was that the survey now

being conducted by the Utah State Board of Health was endorsed.

G. G. Richards read a communication to him from Libman of New York, which stated that Aschof, the eminent pathologist, would be in Salt Lake City on June 25 and again on July 5, and if the society desired to have him lecture it could do so. His fee would be $100, and Libman suggested that his talk be either on the "Pathogenisis of Tuberculosis" or "Atherosclerosis."

George F. Roberts moved that Aschof be requested to lecture for the society; that those who heard the lecture pay $2, the balance to be paid by the society. Seconded and carried.

Kahn offered to amend that a committee of two be appointed, one of whom should be G. G. Richards and the other to be appointed by Richards, to handle first, the finance, and second, the meeting. Seconded and carried.

Nevada State Medical Association

HORACE J. BROWN, M. D., Reno.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

NEVADA MEDICAL BULLETIN

For two reasons the Bulletin need not be issued often or regularly. One reason is because the A. M. A. bulletin, which you should all be receiving, covers better and more fully part of the subject matter of the Nevada Medical Bulletin. The other is that of our official organ, California and Western Medicine, contains our state news. Any news you want printed in our organ should be sent to your secretary, so it can be incorporated in time for publication.

It is vitally important that your patients read Hygeia, which is the layman's magazine of health published by the A. M. A. It presents the merits of scientific medicine to the American public.

The secretary of each of our county societies will hereby be notified that he is delegated to help increase the circulation of Hygeia through individuals, institutions, and agencies. It is $3 per year for less than five subscriptions. For group subscriptions there is a sliding scale of prices. Put Hygeia in your city library.

Out of 40,000 samples of liquor seized by the government in all parts of the country, only 2 per cent were genuine. The majority were poisonous. All of the stuff smuggled in by rum runners is raw alcohol, made in Cuba from blackstrap molasses and bottled under counterfeit labels.

Do not forget our state meeting at Bower's Mansion September 12, 13 and 14, and your 1924 receipt.

Tax Reduction and Tax Exemption—The successful physician's daily work teaches him the necessity of securing all available evidence before making up his own mind and pronouncing judgment. As a good citizen, he ought to apply the same principles to any subject before deciding for himself what he will do and what he will advise his friends to do. This applies to the question of taxation, and regardless of what one's opinion may be before or afterward, he certainly will have been entertained and probably instructed by a careful reading of an article under the above title (The April North American Review) by Edwin R. A. Seligman.

A Case of Malta Fever in Man—W. R. Tyndale and L. E. Viko, Salt Lake City, Utah (Journal A. M. A., December 8, 1923), report a case occurring in a man who died three months after handling the placental tissue from an infected animal. Aside from old cardiac findings not significant to the illness, the necropsy showed only chronic passive congestion of the lungs and liver (enlarged, firm "nutmeg" liver) and a firm, fibrous spleen. From the spleen cultures of Micrococcus melitensis were obtained.

Medical Economics and Public Health

Los Angeles County Medical Association's Permanent Quarters—In the spring of 1922, the Board of Trustees of the Los Angeles County Medical Association purchased a lot at the corner of Westlake and Orange for $24,500 upon which to build the permanent home of this association. This purchase was approved almost unanimously by the membership. Subsequent increase in value has demonstrated the wisdom of this purchase. The lot was paid for long since, and an income has been derived from it much of the time of our ownership.

Some months ago some of our officers and many of our members felt that this property gave promise of such an increase in value as to render it too valuable for our purpose and possibly too small in size. After consulting many of the best authorities on real estate values, bankers, lawyers, and the best business authorities not only at home, but abroad, your board decided to safeguard the association's interest by a further purchase not as a speculation, but as an investment of a potential reserve. Accordingly the Forve home at 427 South Westlake on a lot 200 feet by 165 feet was purchased for $80,000. Of course, no decision has been made by the board as to which will be the site of our proposed assembly, library and museum building.

To some of our members this step may seem too ambitious, especially to those who see in the so-called "peak" the end of the marvelous growth of our great Southern California. To these the board can say that when such disinterested journals as The Nation's Business, Washington, D. C., Business Conditions Weekly, and the London Economist place our Southern California business and growth on the permanent and not the boom basis; when the experience of the past shows that so long as there are people east of the Rockies who can acquire a competency and retire, and that our geographic, climatic and social conditions will draw them with an absolute certainty; when the great commercial and manufacturing interests are a unit as they are for employment and market expansion: when every indication shows that the higher class business, artistic and cultural trend is in the direction of our properties, your board feels that time—and a comparatively short time, too—will show the wisdom of this second step as it has shown the soundness of the first.

I think I am safe in saying that two-thirds of our membership has subscribed to the building fund. If every member who has not subscribed or who is objecting to the plan adopted by the trustees could see these values as they are, could see this future as it is, and could realize that no organization as such can function powerfully without hearty co-operation—then we would soon see right here a splendid medical center, the equal of the best in Eastern cities ten times our age.

And remember it is less than a cigar a day, less than a package of Camels, less than the price of a Sunday paper, less than a shoe shine. This is very small individually, but very great in the aggregate. Why not co-operate?—William Duffield, M. D. (Los Angeles County Medical Association Bulletin.

A Compliment to California Physicians — Some months ago, quite a little local excitement was created in Sonoma County over the news that "Doctor" Tilden of the "Tilden Health School" of Denver had taken an option on the Burke's Sanitarium property, with the intention of opening a branch of the Denver plant here. It is now announced that the option has been allowed to lapse for the interesting reason that Tilden was unable to "secure a proper physician to handle the proposed enterprise."

What is a Health Center?—That the definition of a

"health center," or "health unit" as some of them are now called, is whatever the particular group who are operating one cares to include in the definition, has long been known. Charles Wilinsky, in giving a brief and incomplete history of the movement (Boston Medical and Surgical Journal, April 3), adds his own definition to the variety already existing.

One important feature of his definition that ought to be interesting to California physicians says:

"In order to properly promote the principles of preventive medicine, it is important that only such services that are truly prophylactic in their nature and type be a part of the health center, leaving the curative field to the practitioner, hospital and existing dispensaries. Only in that way can we make the health center emphasize prevention of disease, and we should render only such treatment which may be classified as truly preventive."

Something of how extensively medicine may be socialized without holding treatment clinics is further illustrated by what the author considers the legitimate program of a health center when he says:

"We must begin by giving the expectant mother proper prenatal instruction. Upon the birth of a child, infant welfare guidance, and after two years of age the youngster must be carefully carried through the preschool-age period, receiving correct physical supervision through the most important age, so that we may be able to turn over to the school nurse and school physician, for their watchful care, a child physically able to cope with the classroom problems. In adolescence and adult life we must impress upon the individual the value and virtue of routine medical examinations, which may be properly defined as physical stock-taking. Emphasis must then be laid on careful living, proper hygiene, etc. In the creation and rounding-out of the above service, a health center becomes a powerful potent factor in the life of the individual, and become a community house where one will come for health and welfare relief."

In commenting upon this report editorially, the Boston Medical and Surgical Journal says:

"The expense of maintenance (of health centers) is relatively small as compared with that of a well-equipped dispensary so long as the medical work of the unit is kept within the limits of that which is essentially preventive in purpose. Undoubtedly, however, demands will arise from time to time for the inclusion in these units of treatment-clinics of various kinds. It seems to us that to do so, unless with prophylaxis as the aim, would be to depart from sound policy. It is arguable that medical advice for local cases of tuberculosis or of venereal disease might be included among proper functions of a health unit on the ground that a certain amount of such work is now being done at municipal expense as a means of eradicating these diseases, but there would seem to be no reasonable ground for providing accommodation in a health unit for treatment not essentially prophylactic in purpose, even if not conducted at the expense of the health department. Treatment clinics require more space and more apparatus than is needed for preventive work. Inclusion of treatment clinics in a health unit would tend to overshadow the preventive aspects of the work and would require larger buildings than have been planned for the accommodation of future health centers in Boston."

The real working motto of most of the health centers and similar organizations is to get all the "business" you can drum up from all the classes of people you can interest, and charge them less than they can get the service for from some other clinic or from their former physician.

Medical Insurance Examination Fees—The Canadian Medical Association, after due deliberation, resolved that $5 would be the minimum flat fee for a life insurance examination. They took the matter up with the various life insurance companies. Some of the companies did not pay them the courtesy of a hearing. Others told them their profits were so small they could not afford to pay a $5 fee for a medical examination. A few of the better companies in whom more people have confidence are already paying $5 fees. Most of the companies told the doctors in polite language where they could go to. They said they could hire all the doctors they wanted upon their own terms and that, therefore, they were not interested in what the Canadian Medical Association might resolve.

Physiotherapy Making Progress in Canada—Physiotherapy technicians in Canada have placed themselves under the protecting wing of the medical profession somewhat along the same lines, but less definitely, than have those of California.

Sir William Milligan chose "Physiotherapy" as his "founder's lecture" and complimented the physicians, physiotherapists, and the public upon the fine ethical manner in which the technical specialty was being practiced.

"The lecturer laid stress upon the importance of the thorough grounding in anatomy and physiology for its members which the society had instituted," says the Canadian Medical Journal. So long as an excellent training is insisted upon, no extravagant claims made, and no suspicion of charlatanism tolerated, the profession will have the support of the medical profession, and the gratitude of the public. Neither the physiotherapist, the masseur or masseuse was intended to be a mere mechanic or mere manipulator, but one who appreciates with the physician or surgeon under whom he or she may be working the reason and object of the special manipulations to be carried out. This intelligent appreciation will never be secured unless a high educational standard was maintained by the association.

A Professor in a Class A Medical School Thus Characterizes His Colleagues and His Students—"From different parts of the world we hear of friction between the health officer and the practitioner," says Harry T. Marshall (Virginia Medical Monthly). "The doctor may set himself in stiff opposition to 'socialism in medicine.' He may resent the infringements of his freedom due to the activities of the health officer. He may growl because his young patients are examined by the school physician, or in the baby clinic. He may be shocked and demur when advised that he should call up his families every half year or so and arrange to give each one a health examination. At the same time, he will be very savage if someone else steps in and gives periodic health examinations to his patients, and will cry out about unethical conduct, contract practice or state medicine. He may feel that his means of earning a living is itself being snatched from him through the various health clinics and even more through the reduction in the diseases which bring him the bulk of his income."

Chiropractic from the Inside—A physician took the course in "chiropractic" at the Palmer School in Davenport, Iowa, and some of his findings published in the New York Medical Journal are:

"The absurdity of the pretentions of learning of the chiropractic can be appreciated only by one who has taken the course, lived under the same roof with them, breathed the stench of commercialism that reeks the halls of their so-called institutions of learning, and heard the blatant mouthings of their ignorant and egotistical leader, whom they all adore. You think that you know them, but you do not; nor can you know them without being there for four months."

"I was prepared to produce my credentials, but all I had to do was to say that I was a physician, and he fell on my neck and lifted up his voice and wept. I came across with a check, and was dismissed as a full-fledged student of that institution of learning. I never shall forget how fresh and pure the air seemed, even on that sultry day, after getting out of that man's office."

"For, be it known unto you, educational require-

ments for matriculation are conspicuous by their absence. None is needed to get in, and but few to get out. They insist that you must be able to write. If not, it would lead to all kinds of trouble to cash your check. Now, as to getting out after you are in: I asked some of the boys there about how many men failed to pass the examination, and no one had ever heard of a single one being plucked."

"I betook myself to the hall of learning that was set aside for the post-graduate students, and here I found about ten students, some chiropractors, some osteopaths, but no disciple of Hippocrates but myself; and I felt like a lone wolf. We were but a small body compared to the rest of the school, as there were some 1500 students among them, so it was claimed; but we made up in enthusiasm for that which we lacked in numbers. We ran along the trail of knowledge, like half-spent hounds after the wily fox, and we all ultimately received the coveted diploma."

"The faculty was made up of a bunch of good fellows, with no education except an ex-minister of the gospel, who was rather effeminate. He told me once 'I just love Doctor Palmer.' One medical man—and he seemed to be a good one too—and one high school graduate. The rest were just ignorant, ordinary men who seemed to think that they were doing some good, but not much more than the medical men. You know, the chiropractors—the more intelligent of them—know they are fakirs, but they know that we are, too. The only difference, as they see it, is that we have been working the graft longer than they, and so have developed a finer technique."

"There is the clinic where you learn to give the adjustments after you have developed your punch on an inanimate bench. I suppose that there are, each day, several hundred patients in that place. It is pathetic, too. People that anyone knows can receive no benefit come there with faces lit up by hope. The lame, the halt, and the blind, all are there. Hope springs eternal in the human breast, nor quits us when we die. The medical man has told you the truth. You are blind, have a cancer, pernicious anemia, T. B., or anything else, especially epilepsy—I don't want to forget that; and blindness—it seems to me that was the commonest thing that I saw. Oh, yes, infantile paralysis was raging then. Parents brought their little ones there by the cartload. None was cured. I think that I felt the most sorry for the blind and for the little kids' parents. The study of the faces of the blind from the standpoint of contrast was particularly sad. The new ones were uplifted with the faith. The ones that had been there were beginning to show doubt. You heard the priest of the cult come out and say that little Johnnie Jones, who came there three weeks ago suffering from infantile paralysis, after being given up by fourteen of the best doctors in Davenport, is now healed. (Just what there is to that number, fourteen, that appeals to them there, I don't know. But it is always fourteen of the best doctors in Davenport—never any more, never any less.) I investigated four or five of them, and I found not one who was any better than they would have been in the ordinary course of the disease; and one who was nearly dead—an acute case, that needed rest."

Abstracts from County Nurse's Report—Medical inspection, 540; number with enlarged tonsils, 147; number with defective teeth, 162; number with defective vision, 15; number with symptoms of impetigo, 18; ringworm, 28; conjunctivitis, 2; pediculosis, 3; scabies, 3; mumps excluded, 6; T. B. suspect, 1.

Percy T. Phillips, president of the Board of Medical Examiners, informs us that some of these nurses are not only violating the Medical Practice Act by making diagnosis of diseases, but are actually treating patients. The board takes a definite and positive stand on law enforcement and will prosecute persons practicing medicine without a license, even though they may be employees of the government itself.

The Physician of the Future—Under this title, Eugene R. Kelley, State Commissioner of Public Health, Massachusetts, in the "Commonwealth," says many things of great importance to physicians. For the convenience of our readers, a few brief abstracts are given:

"The Training of the Physician of the Future—Without going into any detailed corroborative evidence, it is probably fair to say that for the past twenty-five years medical schools have shaped their curricula more and more in the direction of emphasizing the specialties. More and more the attempt has been made to have the student master the principles of all of the ever-multiplying specialties and to establish at least a bowing acquaintance with each new 'instrument of precision' and each new laboratory procedure developed in connection with each such specialty. This process has reached and gone beyond the saturation point. One of the great schools of medicine has recently come out boldly with the statement that their policy for the immediate future will be a return to the Hippocratic ideal of training the student's native powers of observation of weighing of the facts elicited, and endeavoring to develop his judgment as to whether it is necessary or advisable to seek the advice of the specialist, with no attempt to turn out embryonic specialists in every aspect of medicine. I believe we will witness in a sense a reversion to the ideals of a generation or two ago—less attempt to turn out encyclopedic authorities on all the nooks and corners of medicine's vast domain, more attempt to turn out sympathetic students of humanity."

"The Recovery of the Lost Provinces of Medicine—This seems to be one of the definite jobs of the coming era in medicine if medicine is to maintain its grip upon the respect, regard and affection of the world at large. 'The obligations of the physician to his fellows, what are they? To cure sometimes, to relieve often, to console always!' says a great French physician. The fundamental mistake of the profession today has been its absorption in the pursuit of the first of these three fundamental duties as defined by the old French physician to the neglect or utter exclusion of the other two. This goes right at the bottom of much that is now admittedly out of joint in the relation of the physician to the rest of the community, and it indicates the line of campaign that medicine must wage to recover its 'lost provinces.' I predict that medicine of the future will come back and claim for its own the fields of alleviation and spiritual consolation just as the old family doctor of the past always did. But in his case he did this instinctively, unobtrusively, utilizing all the great potentialities for good in the way of palliative, psychic and spiritual measures that were at hand without dreaming of starting a new healing cult or a new religion in order to call dramatically to the world's attention the possibilities of such procedures."

"The Physician of the Future a Practitioner of Preventive Medicine—One other thing in reference to the medicine of the future that seems more certain to come to pass than any other probable or likely development is the shift of emphasis to preventive in contrast to curative principles not merely in public or community health matters, but in private practice as well."

"Clinical Medicine Already Entering the Preventive Medicine Phase—The medical profession today is giving more treatment for diseases that are in the early stage, and to patients who are predisposed than ever before. There is a strong irresistible, unceasing current in medicine to move from the obviously pathological toward the more physiological conditions of life. This tendency of medicine to find its patient before irreparable damage has been done and to treat disease in its more curable stages has been made possible (1) by a larger appreciation on the part of both physician and patient of the value of early treatment as contrasted with late treatment, this larger appreciation of early treatment having resulted

from the greater emphasis that has been placed upon disease prevention as compared with the treatment of disease during the last thirty or forty years; and (2) by easier means for reaching the patient because of (a) improved communication, telephones and roads, (b) improved transportation, automobile and electric car lines, (c) enlarged hospital facilities with segregation of the sick. Prevention is much newer as a practice than as an ideal in medicine. Medical ideals, the larger objectives of the profession, have always been the prevention of disease. The pride of the profession, the respect in which the public holds it, the distinction which it has over the cults, is that, through its discoveries and their application, smallpox and typhus and yellow fever have been banished and diseases in general have been greatly reduced; the efficiency and happiness of life and longevity have been defined and measurably advanced. The 'Principles of Medical Ethics,' embodying a statement of principles and ideals of the organized medical profession of the United States, in Chapter 3, relating to 'The Duties of the Profession of the Public' specifically and urgently advised the members of the profession to take an active and advanced position in their communities, their states and their nation in proposing legislation for disease prevention, in supporting officers for the enforcement of such legislation, and in every possible way preventing disease in the interest of the public welfare."

To summarize, the field of medicine, in both its practice and its claims, insists and rightly insists on including within its activities both the cure and the prevention of disease, and the unmistakable tendency in medicine is to increase its work in the prevention of disease as compared with its work in the treatment of disease.

Notice of Examination for Entrance into the Regular Corps of the United States Public Health Service—Examinations of candidates for entrance into the Regular Corps of the United States Public Health Service will be held at San Francisco, Calif., July 7, 1924.

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon-General, United States Public Health Service, Washington, D. C.

Mediaeval Medicine—"The profession of medicine, with all the chivalry and much of the despotism of the Middle Ages, has deliberately set itself to the pauperism of two classes of society," says the Boston Medical and Surgical Journal editorially. "The wage-earners with less, and the young physicians with more pride than financial resources. The free or low-priced hospital clinic is not an unmixed blessing as it is at present generally conducted. Designed to give service to the needy poor, and experience to the inexperienced graduate in medicine, it has abandoned its ideals and abused its privileges, misled by the ambition to increase its attendance, and the desire to gather half-dollar fees from many of its patients who should be paying regular fees to the same physicians, in their offices, now treating them free in the clinics."

Interesting Health Development Project for Kings County—The report of Mr. E. C. Bond, health officer, contains this illuminating statement: "On account of the large number of cases of measles, chickenpox and other diseases reported, this has been a very busy month for the health department, and has strongly reminded us of the need of an inspector to relieve the health officer and county nurse of a large amount of driving that could as well be done by an inspector as by the nurse."

The Beginner in Medicine—Every young physician of less than fifty years' experience can find much that is worthwhile thinking over in Henry Jones Mulford's article on the above subject.—New York Medical Journal, April 18, 1924, p. 605.

The Dermatological Research Laboratories Issue New Publication—We are in receipt of the "Progress of Chemotherapy and the Treatment of Syphilis," edited by George W. Raiziss.

With this initial copy of the Dermatological Research Laboratories (Branch of The Abbott Laboratories) establish a "house organ" devoted to the subject of treatment. The publication abstracts and reviews literature, and in the first number this work is creditably done.

Making Private Physicians' Services Unnecessary at Lodi—If newspaper publicity and personal reports from our correspondents are approximately correct, the public health department of San Joaquin County proposes to make the personal services of private physicians unnecessary at Lodi, through the bi-weekly clinic conducted by the department.

They propose to accomplish this, it is said, by keeping such close watch over children under school age that "it may be possible to eliminate all health examination work in the schools."

"The examinations in the five public grammar schools and the two private schools keep the children under the supervision of the health district until they enter high school," says Miss Edna Porter, in charge of the local health office.

All this work is "free," and it is said that the physicians of the community have offered to assist when the work became more than the salaried health staff could handle. This has not happened yet. San Joaquin County has a physician for about each 600 people, and one for each fourteen square miles of territory.

Doctor of Psychological Medicine—Outlines of courses of graduate medical instruction leading to a variety of special medical degrees is developing rapidly abroad and in this country. Some universities in England are now prepared to award diplomas in what is termed psychological medicine. The requirements for the degree are outlined in the curriculum, the important features of which are:

Model Scheme for a Diploma in Psychological Medicine

1. The candidate must be already a registered medical practitioner.

2. The candidate may present himself for examination on the subjects detailed under Part I of the curriculum (see paragraph 4) immediately he has concluded the prescribed course of instruction or can produce such other evidence of diligent study of the subjects to be examined upon as may be demanded. Part I must be passed save by special permission at least three months prior to entering for examination on Part II of the curriculum.

3. The candidate may not present himself for examination on the subjects detailed under Part II of the curriculum (see 4) until he has been a registered medical practitioner for not less than two years. He must, subsequently to qualification, have been in the practice of an approved mental hospital for not less than two years, or have attended for six months at a hospital, mental or general, for clinical instruction in psychological medicine, and subsequently held a resident appointment at an approved mental institution or mental wards of a general hospital for not less than six months. In both cases he must produce a certificate from a recognized source that he can apply his theoretical knowledge and has practical

acquaintance with, and is well and adequately versed in, the current clinical methods of examination and treatment of nervous and mental disorders. In the case of mental deficiency the certificate should include a practical knowledge of the various intelligence tests and other methods of ascertaining the degree of mental defect. He must also produce evidence of having attended, subsequently to qualification, courses of lectures, demonstrations or other evidence of diligent study of the subjects upon which he presents himself for Part II of the examination, as may be demanded.

4. Curriculum—

Part I—(a) Anatomy, histology, and physiology of the nervous system, including the autonomic system. Anatomy and physiology of the endocrine glands. Chemistry and cytology of the cerebro-spinal fluid. (b) Psychology, systematic and experimental.

Part II—(a) Morbid anatomy, histology, and pathology of the systems mentioned under Part I (a). Post-mortem and laboratory technique. (b) Neurology and clinical neurology. (c) Psychiatry (including the psycho-neuroses), clinical psychiatry, and the medico-legal relationships of mental disorders and mental deficiency.

In addition, the candidate for Part II will need to show special knowledge of any one subject, to be selected by him from the subjects comprising Part I or Part II; or may choose to be examined in any one of the following subjects: (d) Mental deficiency and the mental disorders of childhood and adolescence, and the duties of school medical officers in relation thereto. (e) Bacteriology as applied to mental and nervous disease. (f) Psycho-pathology and psychotherapy. (g) The principles of diet, vitamins, and basal metabolism, and their application. (h) Eugenics, and vital statistics. (i) Criminology and the jurisprudence of criminal responsibility.

5. The diploma, by request, may be endorsed that special knowledge has been shown in the subject selected.

6. It is suggested that any compulsory attendance at lectures and demonstrations and clinical courses should be limited to the subjects detailed for Part II, and that the course for Part I or Part II should not exceed eight weeks.—British Medical Journal, April 5, 1924.

Medico-Dental Building — This $1,200,000 doctors' and dentists' office building for San Francisco has reached a stage in its promotion where the Anglo London Paris Company are offering 6 per cent first (closed) Mortgage Sinking Fund Gold Bonds to the public. These bonds are exempt from personal property tax in California, and we are informed by reliable judges of investments that they are a perfectly good bond to buy. Applications have already been approved for over 70 per cent of the occupancy of the building. Excavation will begin June 15, and will be completed by the first of September, by which time the foundation will be all in. Steel work will be completed November 1, and the building itself will be ready for occupancy July 1, 1925.

The announcement of these bonds by the Anglo London Paris Company is found in the advertising pages of this issue of California and Western Medicine, and this company has entered into a contract to use a quarter-page of our advertising space for a year, for various announcements they will have to make that will be of interest to our members.

Offices for Doctors—We are glad to call the attention of our readers to the advertisements of the Butler building, Geary and Stockton streets; the Elkan Gunst building, Powell and Geary streets; the Physicians' building, Sutter at Powell, and the Union Square building, 350 Post street, carried in this and subsequent issues of California and Western Medicine. All of these buildings offer their space exclusively to educated, ethical physicians, dentists and other approved agencies of scientific medicine. All of them are well-known physicians' office buildings, and it may be confidently predicted that available space will not long remain idle in any of them. Certainly physicians who are now occupying space in these buildings will appreciate the spirit of cooperation shown by their owners.

Grinding and Repairing of Surgical Instruments—We feel quite sure that many physicians and hospitals will find exactly what they want in the advertisement in this and subsequent issues of California and Western Medicine of the Exclusive Cutlery Shop, 113-115 Stockton street, San Francisco, whose repair department is comprised of skilled surgical instrument-makers of the old school, trained to do scientific work in repairing, sharpening, and conditioning expensive surgical instruments.

Hospitals in Charge of Sisters of Charity—We welcome the advertisements contained in this and subsequent issues of California and Western Medicine, of the O'Connor Sanitarium, San Jose, and Mary's Help Hospital, San Francisco. Both of these hospitals are rendering high-grade service to the sick along ethical lines, endorsed by our medical organizations. What a pleasure it is to welcome more and more of the hospitals of the state who are constantly improving their service and who intend to continue to improve it, so as to merit the endorsement of physicians today and in the future.

Cloverdale Hospital—We are glad to add to our advertisers the Cloverdale Hospital, located at Cloverdale, Sonoma County, Calif. This hospital is under the medical direction of W. C. Shipley, a member of the California Medical Association. It is unusual for good hospitals located in smaller communities to have the vision and see the advantages of carrying announcements in accredited medical literature. Many hospitals of this kind fail to appreciate the fact that city physicians and city hospitals are constantly giving advice to sick people as to where to go for convalescence, care of chronic diseases, etc., in more rural communities, under more favorable climatic conditions. California and Western Medicine is particularly fortunate in carrying the announcement of several—The Alexander Sanitarium at Belmont; The Anderson Sanitarium, Oakland; Banksia Place Sanitarium, Pasadena; Gottbrath's Sanitarium, Belmont; Grande Vista Sanitarium, Richmond; Las Encinas Sanitarium, Pasadena; Livermore Sanitarium, Livermore; Tamalvista at Mill Valley; The Terrace, Saratoga; and Lomita Vista at Los Gatos. And in San Francisco, the Alice Lampson Thompson Rest Home, and Miss J. Price's Convalescent Home. All of these will be found listed on page 62 of each issue, together with general hospitals, tuberculosis hospitals and other special hospitals, whose advertisements are found in our pages monthly, and about which more will be written in this department from month to month.

Preparation of Manuscripts Made Easier—The advertising of the Corona Typewriter Company, which we have been carrying during the past year, has been very satisfactory, because they are making available an easy and attractive method by which doctors may put their thoughts into good shape for publication or other use. The Corona people are now prepared to offer what is called the "four-bank keyboard," with a special medical keyboard, which doctors have been asking for. Their advertisement in this issue contains a coupon. Why not fill it out and mail it to the Corona people and learn more about this new development? The Corona people will, of course, check up the interest of the physicians of California, Utah, and Nevada, by the extent to which they use this coupon. Or ring up your nearest agency and ask them for information. Los Angeles has an agency at 533 South Spring street; San Francisco, 546 Market street; Fresno, 1209 Broadway; Oakland, 1526 Franklin street; Salt Lake City, Utah, 131 South Main street; and Reno, Nev., 224 North Center street.

BOOKS RECEIVED

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M. D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes, totaling 8000 pages, with 1500 illustrations, and separate Index volume free. Now ready—Volume III, containing 1051 pages, with 223 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth. $10 per volume. Sold by subscription.

The Circulatory Disturbances of the Extremities, Including Gangrene, Vasomotor and Trophic Disorders. By Leo Buerger, M. A., M. D., New York City. Octavo volume of 628 pages, with 188 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $8.50 net.

Differential Diagnosis. Presented through an analysis of 317 cases. By Richard C. Cabot, M. D., Professor of Medicine and Professor of Social Ethics at Harvard University. Volume 2. Third edition, revised. Octavo of 709 pages, 254 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $9 net.

The Operating Room—Instructions for Nurses and Assistants. By the Staff of St. Mary's Hospital, Rochester, Minn. (The Mayo Clinic.) 12mo of 165 pages, with 144 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $1.75 net.

National Health Series. Edited by the National Health Council, written by leading health authorities of the country, and published by the Funk & Wagnalls Co. Price per volume, 30 cents. Complete set of twenty volumes, $6. The second five volumes have been received, and are as follows:

The Quest of Health—Where It is and Who Can Help Secure It. By James A. Tobey, Administrative Secretary, National Health Council.

The Human Machine—How Your Body Functions. By William H. Howell, M. D., School of Hygiene and Public Health, Johns Hopkins University.

Food for Health's Sake—What to Eat. By Lucy H. Gillett, A. M., Superintendent of Nutrition, Bureau of the New York Association for Improving the Condition of the Poor.

The Young Child's Health. By Henry L. K. Shaw, M. D., Clinical Professor of Diseases of Children, Albany Medical College, New York.

Taking Care of Your Heart. By Stuart Hart, M.D., President of the Association for Prevention and Relief of Heart Disease.

Modern Urology: In original contributions by American authors. Edited by Hugh Cabot, M. D., Dean and Professor of Surgery in the Medical School of the University of Michigan. Volume I, general considerations—discases of penis and urethra; diseases of scrotum and testicle; diseases of prostate and seminal vesicles. Volume II, diseases of the bladder; diseases of the ureter; diseases of the kidney. Second edition, thoroughly revised. 288 engravings and 8 plates. Lea & Febiger, Philadelphia and New York, 1924.

Medical and Sanitary Inspection of Schools: For the health officer, the physician, the nurse, and the teacher. By S. W. Newmayer, M. D., formerly Chief of Division of Child Hygiene; Supervisor of School Medical Inspection, Philadelphia. Illustrated with 79 engravings and 6 full-color plates. Lea & Febiger, Philadelphia and New York, 1924.

Local Anesthesia: Its Scientific Basis and Practical Use. By Prof. Dr. Heinrich Braun, Director of the KGL. Hospital at Zwickau, Germany. Translated and edited by Malcolm L. Harris, M. D., Professor of Surgery, Chicago Polyclinic; Chief Surgeon Alexian Brothers Hospital, Chicago, etc. Second American from the sixth revised German Edition. With 231 illustrations in black and colors. Lea & Febiger, Philadelphia and New York, 1924.

A Woman's Quest, The Life of Marie E. Zakrzewska, M. D. Edited by Agnes C. Vietor, M. D., Formerly Instructor in Physical Diagnosis and Surgery, Woman's Medical College of the New York Infirmary; later Assistant Surgeon, New England Hospital for Women and Children, Boston. D. Appleton & Company, New York: London, 1924.

A Manual of Gynecology and Pelvic Surgery: For Students and Practitioners. By Roland E. Skeel, M. D., formerly Associate Clinical Professor of Gynecology, Medical School of Western Reserve University. Second Edition, with 281 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street.

Fifty Years of Medical Progress, 1873-1922. By H. Drinkwater, M. D. With 37 illustrations. The Macmillan Company, New York, 1924.

Maternity Nursing in a Nutshell. By Elizabeth H. Wickham, R. N., Former Supervisor of the Maternity Department, Lebanon Hospital, New York City. With 28 illustrations. Philadelphia: F. A. Davis Company, Publishers, 1924.

A Study of Masturbation and Its Reputed Sequelae. By John F. W. Meagher, M. D., Neurologist of St. Mary's Hospital, Brooklyn; Consulting Neurologist to the Kings Park State Hospital, etc. New York: William Wood & Company, 1924.

The Relative Position of Rest of the Eyes and the Prolonged Occlusion Test. By F. W. Marlow, M. D., Professor of Ophthalmology in the College of Medicine, Syracuse University. Illustrated with original diagrams and charts. Philadelphia: F. A. Davis Company, Publishers, 1924.

The Treatment of the Common Disorders of Digestion: A Handbook for Physicians and Students. By John L. Kantor, M. D., Chief in Gastro-intestinal Diseases, Vanderbilt Clinic, Columbia University. Illustrated. St. Louis: The C. V. Mosby Company, 1924.

The Science and Art of Anesthesia. By Colonel William Webster, M. D., Professor of Anesthesiology, University of Manitoba Medical School; Chief Anesthetist, Winnipeg General Hospital, etc. Illustrated. St. Louis: The C. V. Mosby Company, 1924.

A Textbook of Pharmacology and Therapeutics, or the Action of Drugs in Health and Disease. By Arthur R. Cushny, M. D., Professor of Materia Medica and Pharmacology in the University of Edinburgh; formerly Professor of Materia Medica and Therapeutics in the University of Michigan, and later in the University of London. Eighth Edition, thoroughly revised. Illustrated with 73 engravings. Lea & Febiger, Philadelphia and New York, 1924.

Diseases of Middle Life: The Prevention, Recognition and Treatment of the Morbid Processes of Special Significance in this Critical Life Period. Comprising twenty-two original articles by various eminent authorities. Edited by Frank A. Craig, M. D., Associate Director of the Clinical and Sociological Department of the Henry Phipps Institute of the University of Pennsylvania. In two columns. Illus-

trated. Philadelphia: F. A. Davis Company, Publishers, 1924.

Management of Diabetes: Treatment by Dietary Regulation and the Use of Insulin. A manual for physicians and nurses based on the course of instruction given at the Presbyterian Hospital, New York. By George A. Harrop, Jr., M. D., Associate in Medicine College of Physicians and Surgeons, Columbia University. Introduction by Walter W. Palmer, M. D., Bard Professor of Medicine College of Physicians and Surgeons, Columbia University; Medical Director Presbyterian Hospital, N. Y. Paul B. Hoeber, Inc., New York, 1924.

Cosmetic Surgery: The Correction of Featural Imperfections. By Charles Conrad Miller, M. D. With 140 illustrations. Philadelphia: F. A. Davis Company, Publishers, 1924.

Cancer of the Breast, with study of 250 cases in private practice. By L. Duncan Bulkley, M. D., Senior Physician to the New York Skin and Cancer Hospital, etc. With 40 illustrations. Philadelphia: F. A. Davis Company, Publishers, 1924.

Handbook of Modern Treatment and Medical Formulary. A condensed and comprehensive manual of practical formulas and general remedial measures. Compiled by W. B. Campbell, M. D., formerly Resident Physician at Methodist Episcopal Hospital of Philadelhpia. Seventh Edition revised and enlarged, by John C. Rommel, M. D., and C. E. Hoffman, Ph. D. Philadelphia: F. A. Davis Company, 1924.

BOOK REVIEWS

Practice of Preventive Medicine. By J. C. Fitzgerald. St. Louis: C. V. Mosby Company. 1922.

The author states in his preface that the object of the volume is to outline some of the work of the physician who is to function on the preventive, as well as the curative side of medicine, and that the volume may be found useful by medical practitioners, students of medicine or public health nurses.

The volume will probably find a wider use. It should find a place in the libraries of those interested in construction problems, where matters of public health are likely to be considered.

The first chapter, "Aims and Problems of Preventive Medicine," is of interest to physicians whether for or against state medicine. Following the introduction, each communicable disease or group of related diseases are taken up under a separate chapter. At the end of each chapter there are references to standard texts or the principle articles on the subject. The chapters are clearly subdivided under a number of headings such as Etiology, Incidence, Modes of Transmission and Control. The book covers the subject in about 800 pages, including charts and illustrations, and the character of the language and comparative brevity make the subject readable to those not specially trained in medicine.

E. V. K.

Rhus Dermatitis. From rhus toxicodendron, radicans and diversiloba: its pathology and chemotherapy. By James B. McNair. 298 pp. Chicago: University of Chicago Press. 1923.

The author in his preface states that his object is to try to "isolate the principal skin irritant" of the rhus plant in the hope that a knowledge of its characteristic properties might serve as a basis for such treatment. He gives an interesting account from an historical, botanical and chemical standpoint which is well worth reviewing. He describes his researches which resulted in the isolation of what he considers the principal skin irritant principle of rhus diversiloba. This he calls lobinol. On the basis of studies of the pathological reactions of the skin and the chemical properties of lobinol, the author has suggested rational external treatment of rhus dermatitis. Natural and acquired immunity to poison oak and the pioneer work of Strickler and Schamberg, in attempts to artificially stimulate this process, are discussed briefly. The work represents a valuable contribution to the subject, and should find a place in the library of every progressive specialist in cutaneous medicine.

ALDERSON.

Text-book of Human Physiology. By Albert P. Brubaker. 7th ed. 835 pp. Philadelphia: P. Blakiston's Son & Co. 1922.

A book which has gone through seven editions must have many points in its favor, and must have reached a certain degree of excellence, if only through the process of attrition or of trial and error. About the only chapter in the book which the reviewer feels like criticizing is the one on physiologic apparatus which, on account of the retention of many old drawings, is far from up to date. In order to be of real use, it should picture the type of apparatus which is being used now.

W. C. A.

Manual of Diseases of the Nose and Throat. By Cornelius G. Coakley. 664 pages. Illustrated. 6th edition. New York and Philadelphia: Lea & Febiger. 1922.

In this book, the author has compiled an excellent, compact manual dealing with the diseases and treatment of nose and throat conditions.

It is particularly adapted to the needs of the student because it treats the subject in simple, readable language and is not crammed full of superfluous anatomy, physiology and theory.

Great stress is laid on the proper method of examination, technic being given in every detail.

Each disease is described and treatment given in a very brief and concise manner, thus making the work valuable to the rhinolaryngologist as well as to the medical student and general practitioner.

R. E. A.

Hygiene and Public Health. By Louis C. Parkes and Henry R. Kenwood. 7th edition. 783 pages. Illustrated. Philadelphia: P. Blakiston's Son & Co. 1923.

This book on hygiene and public health presents the subjects in a most full and comprehensive manner. It is a most valuable book and should occupy a place in every medical man's library, especially health officers' and others interested in this subject.

It would be an excellent book for the library of every high school, for it contains a world of sound information especially on sanitation and communicable diseases, their epidemiology, causes and prevention, and many other kindred subjects.

H. R. O.

What Re-write Editors Sometimes Produce — We wonder if the New York Medical Association members would recognize their reports about underwear after they have been man-handled a number of times and have traveled some 3000 miles. They are quoted here as saying:

"The doctors do not suggest long, angle-length undies, nor do they necessarily mean "heavies"; they insist that the way to acquire and keep slender ankles is to give the body itself plenty of protection so that the blood that goes through the legs will be warm and flow freely. They declare that thick ankles are due to swelling caused by pumping thick, congested blood through veins that have been contracted by cold."

Medical School News

University of California Medical School (reported by L. S. Schmitt, acting dean)—The Surgeon-General of the army has authorized the organization of a general hospital and a surgical hospital as University of California Medical School units. The General Hospital will be known as General Hospital No. 30, and the Surgical Hospital as Surgical Hospital No. 65. The General Hospital has been given the same number as the Base Hospital, which was organized by the University of California Medical School and sent overseas during the World War. Howard C. Naffziger has been designated as commanding officer of the General Hospital, and J. Homer Woolsey as commanding officer of the Surgical Hospital.

In order to meet a widespread demand, plans are now being made to offer post-graduate instruction in medicine during the summer of 1925. It is contemplated that the course will cover a period of six weeks, probably from May 19 to June 28, inclusive. As now outlined, the courses will include General Medicine, Laboratory Diagnosis, Borderline Medicine and Surgery, Gastro-Intestinal Diseases, Metabolic Diseases, Neuro-Psychiatry and Neurological Surgery, Dermatology, Syphilology and Radium Therapy, Technique of Intestinal Surgery, Surgical Pathology, Otorhinolaryngology, Ophthalmology, Pediatrics, Roentgenology, and Pathology. Further details concerning these courses will be announced next autumn.

Edible Gelatine—Edible gelatine is a pure protein readily assimilated. It is not only of distinct value in breaking up excessive casein curds into small particles, but also of potency in infantilism, infantile diarrhea and gastric hemorrhage, as well as stubborn intestinal infections. The action of edible gelatine as a protective colloid is also interesting because of the small amount required to produce results. The percentage of gelatine used in the infant food, as indicated by the various authorities, would average one-half of 1 per cent or even less.

California in Bad Company — The annual state board number of the Journal of the American Medical Association contains much important data. Editorially, the Journal says:

> "Special attention is called to Table J, which shows the classification of the medical colleges from which the physicians graduated who were licensed in each state during the last six years. In each of eight states, over 100 Class C graduates were licensed; the largest number, 324, in California, followed by 199 in Massachusetts; 171 in Connecticut; 162 in Illinois; 160 in Arkansas; 150 in Colorado; 125 in Texas, and 118 in Missouri."

It will take a lot of expensive advertising to overcome such a handicap.

Martha Berry started her school for the neglected children of the Georgia mountains in a wrecked log cabin, with two scared children. Lillian Wald began her Henry Street Settlement in a tiny flat in the tenement-house district, scrubbing the floors and tending the sick with her own hands. Dr. Grenfell went to the suffering people in Labrador without money or influence—just his wonderful ministering hands and an idea. They commenced.

"Good-will is developed by service, but the knowledge of good service must be continually advertised and the memory of service must be regularly stimulated,' says the "house organ" of the American Laundry Co.

CORRESPONDENCE

San Francisco, May 22, 1924.

Editor California and Western Medicine:

Will you please publish the following communication?

To the Medical Profession of California:

Newspaper publicity of some actions on Industrial Accident matters, at the recent convention of the California Medical Association, make necessary an explanation to the medical profession.

Some newspapers reported that certain actions of the Industrial Accident Section, and the House of Delegates, were acts hostile to the state administration and to the Industrial Accident Commission.

The acts and purposes of the acts were in no way hostile. The State Medical Association must depend for success in ridding the profession of the abuse which now exists, in large measure upon the co-operation of the Industrial Accident Commission. It will have co-operation if misguided antagonism does not make co-operation impossible.

The minutes of the sessions of the House of Delegates show that authority has been given the Council to provide panels of physicians to do industrial accident work. This was the result of co-operation and agreement between the Industrial Accident Section of the San Francisco County Medical Society, the San Francisco County Medical Society, the Alameda County Medical Society, and the Industrial Accident Section of the Los Angeles County Medical Association.

These organizations have also provided the council with material for guidance in formulating standards and rules of conduct for industrial accident practice.

Every action was designed to correct abuses within and without the medical profession.

MORTON R. GIBBONS.

Charles E. Stolz, Los Angeles—In reply to a few of your editorials in the May, 1924, issue.

Pay Clinics: The medical profession ought to withdraw their support and turn them over to the chiropractors and osteopaths so that the medical profession would be adequately paid for their services and leave sufficient worldly wealth to their families upon their death. The medical examiner tax of $2 should have been abolished a long time ago; likewise the narcotic tax we are also paying for the enforcement of the law and enabling a bunch of friends and relatives to get nice fat jobs at our expense.

Feeblemindedness — Millions of dollars are being yearly expended for the care of the feebleminded in this broad and wealthy country of ours, says the Texas Journal of Medicine editorially, most of which is merely for their care and keeping, there being practically no concerted effort to better their mental condition or to separate those who are mentally deficient by virtue of their surroundings, from those who are in like condition because of heredity or illness, in order that cure might be attempted. The courts, venereal clinics, almshouses, jails, penitentiaries and even insane asylums, are handling these people continuously and, for the most part, on a hopeless basis. Many of these unfortunates being arrested, tried, convicted, released and arrested, tried and convicted again, over and over, with no intervening effort whatsoever at reclamation. The laws of our land recognize the fact that a child may not be held to strict accountability for moral misdeeds or criminal acts, and yet we are daily sending to our penitentiaries, and even to the gallows or the electric chair, adults with childish minds. We fail to see the ridiculousness (to say nothing of the tragedy!) of this procedure. We are turning into the busy marts of the fastest living country in the world both children and adults who are totally unfit for contact with their fellows, because of their poor mental development.

COMMENTS FROM OUR MEMBERS

H. A. Todd of Visalia, commenting on the editorial about the $2 tax, says:

> "To use my own editor's words rearranged, it is a cheap, unfair, unjust nuisance and a flagrant example of class legislation. Class legislation is strictly prohibited by the constitution of our great nation. 'Why was such a law ever passed, anyway?' I once asked my attorney. He answered, 'Nearly all laws are made by lawyers; our legislators are nearly all lawyers; they are not passing laws taxing themselves.' Not a bad answer, eh, Dear Editor? Please count me as objecting very strongly against that law, not because of the $2, but I would like to see fair play."

Another member, who asks us not to publish his name, says:

> "The editorial in the May number of California and Western Medicine, with reference to the Board of Medical Examiners' tax, should have the endorsement of every active practitioner who wishes fair play and resents class legislation.
>
> "It would seem as though consistency, however, demanded activity, in protest of what seems to the writer a very much more unjust tax on the medical profession in San Francisco, viz.: the Municipal License Tax, iniquitous, in that it is a tax on gross income; discriminatory, in that two types of professional men have been singled out by the previous Board of Supervisors and held up every three months.
>
> "Would it not be well if our medical societies, in addition to their academic functions, would operate, to the end that practical relief could be brought about in this matter of unjust taxation?"

Comment upon the excessive cost of filling prescriptions as one of the reasons why patients often buy their own medicine:

> "R. Forrest of Occidental is right when he says, as is being said by many other people in various places in the medical world, that physicians ought always to consider the patient's economic situation when writing prescriptions. Many physicians will find good pharmacies willing to co-operate with them in making special rates to patients whom the physicians themselves have charged minimum fees or none at all for their services."

Gangrene in the Nose Complicating Diabetes—Chester H. Bowers, Los Angeles (Journal A. M. A., April 26, 1924), calls attention to a condition of gangrene in the nose in young children complicating diabetes. Three cases are reported. The patients were young children, the oldest being only ten years of age. The blood Wassermann reaction was negative in two cases of the group, and in the case in which no Wassermann test was made there was a negative family history; the child was the eldest of four children, and it is reasonably certain that this child was not syphilitic. This was in the case of gangrene of the cheek, which is less suggestive of syphilis than the other two. In these cases, the gangrene developed in children with young vessels, and obviously cannot be explained on an arteriosclerotic basis. Bowers believes that they should be considered a thrombosis of the type described as thrombo-angiitis obliterans; that in the presence of an infection an inflammatory condition resulted in the artery, which was followed by thrombosis and gangrene of the tissue distal to the thrombosed artery. The discovery of insulin before the last case was treated is responsible for its favorable outcome, as contrasted with that of the two earlier fatal cases.

Obituary

Memorial Tribute to the Memory of S. F. Smith, Charter Member of the Kern County Medical Society

(By the Kern County Medical Society)

Samuel Franklin Smith, a pioneer physician of this county, after an illness of some few months, passed unto the Great Beyond at Bakersfield, April 3, 1924. He was born in Fairfield, Ill., May 15, 1865, where he spent his boyhood days and received his early education. He received the Degree of Bachelor of Science from his literary Alma Mater, after which he took up the honored calling of teaching until he entered the study of medicine, his greatest ambition, entering the medical department of the University of Southern California, from which he graduated in 1895. He immediately moved to Bakersfield, which community he faithfully served as a country practitioner for nearly thirty years.

In the early days he was closely associated with A. F. Schafer, and was one of the prime movers in the organization of the Kern County Medical Society, becoming a charter member, and always taking an active interest, serving as president and also as secretary at various times.

Doctor Smith was a man of firm and decided convictions. He took a keen interest in the politics of the county, state, and of the nation. He was a member of the Board of Freeholders which framed the present city charter, and many of its excellent provisions are due to his efforts and wise counsel. Upon the adoption of the charter he served his ward as a member of the city council.

He was a close friend of the late George J. Planz, by whom he was held in the highest esteem. Upon the meeting of the men who formed the Bakersfield Security Co., forerunner of the Bakersfield Security Trust Co., it was found hard to agree upon a plan of formation. After much discussion, it was agreed that each formulate a plan to present at a future meeting, At the next meeting, when Mr. Planz read Doctor Smith's plan, he reached into his desk and got his own plan, which he immediately threw into the wastebasket, remarking, "This is the plan under which we will work." When the Security Trust Co. became a bank, Mr. Planz tried to induce Doctor Smith to become one of the bank's responsible officials, but Doctor Smith could not be persuaded to leave the profession he loved.

In the passing of Doctor Smith, Kern County loses one of its leading physicians and a citizen of high ideals and integrity, who commanded the esteem of his fellowmen.

DEATHS

Stratton, Robert Thompson. Died at Oakland, May 5, 1924, age 62. Graduate of the Jefferson Medical College of Philadelphia, 1886. He was formerly a member of the Alameda County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Whisman, Henry Stafford. Died at San Jose, May 15, 1924, age 34. Graduate of Johns Hopkins University Medical Department, Baltimore, 1915. Licensed in California, 1919. He was a member of the Santa Clara County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Psychology of Fear and Hope—In discussing this subject, W. S. Rankin (Southern Medical Journal) says: "Fear and hope live on the physical and mental frontiers of life. They inhabit the region between the known and the unknown. They have the same food supply. They subsist on uncertainty. When man or social groups leave the beaten track for new territories of space and thought and encounter new problems, there fear haunts and hope lures on. Fear always gets into action before hope begins to move. Fear is quick on the trigger. Fear acts on impulse. Hope waits to reason. Impulse was in the world a long time before reason was born, so it was that 'fear in the world first created the gods.' But hope took the god of fear, an avenging Jehovah, and out of it made God the Father. Fear agitates, fear begins movements. Hope organizes and directs."

The Value of Diagnostic Excisions and Diagnostic Curettage in Gynecology — Five cases are cited by Robert T. Frank, Denver (Journal A. M. A.), in substantiation of the thesis, not only that exploratory excisions and curettages are justified in gynecology, but also that these small interventions are indispensable. No amount of clinical experience, sagacity and knowledge can take the place of accurate microscopic diagnosis. Those practitioners who fear to use the scissors or scalpel in making their excision can use the cautery knife, which seals the lymphatics and tissue spaces, and thus more surely obviates the possibility of spreading cancer cells. Exploratory curettage never causes dissemination of adenocarcinoma of the corpus. Curettage may, however, produce an attack of pelviperitonitis, if practiced in the presence of acute or subacute cervical or tubal infection. In Frank's experience, practitioners, including especially those "who do their own surgery," and also the "occasional operator," omit diagnostic excisions and exploratory curettages more often from a feeling of cocksureness and from ignorance of the many possibilities than from dread of disseminating cancer cells. Another serious danger to the community, in addition to the overzealous wielder of the scalpel, is the untrained "pathologist," and the lay technician. The rush of hospitals to become "standardized" has strained the output of competent pathologists to the utmost, and many half-trained and incompetent individuals at present fill positions of trust and responsibility.

The Home Hospital—On March 18, 1912, the A. I. C. P. had opened, in New York City, the first Home Hospital for treatment of tuberculosis. Hitherto, the breaking up of a home had been the recognized procedure which relief agencies followed when the father or mother of a family was found to have this disease. The home hospital was based on the assumption that such action is not always advisable or necessary.

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HOW shall we in medicine oppose this destructive social trend? By making ourselves, in the first place, a part of the enlightened minority that is the salvation of democratic government; by being alert to the socialized dangers to medicine and by aggressively opposing them; by opposing, as vigorously as can be done, the various governmental projects for practicing medicine, and the efforts of organizations, public and private, including medical schools and hospitals, to go into the practice of medicine as a business.—*From the address of President William Allen Pusey, American Medical Association.*

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(Continuing the California State Journal of Medicine)

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ORIGINAL ARTICLES

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THE CLINICAL DIAGNOSIS OF SYPHILIS *

By ERNEST DWIGHT CHIPMAN, M. D., San Francisco

Twenty years ago the dermatologist was often consulted for aid in the diagnosis of syphilis. Today he is called upon with relative infrequency for such service. The reason, of course, lies in the aid afforded by the laboratory in demonstrating the treponema and in the performance of complement fixation tests.

It is by no means the purpose of this paper to belittle the invaluable assistance which the laboratories offer; it is rather to urge that the clinical recognition of syphilitic lesions shall not be allowed to become a lost art.

It will be granted that routine resort to the Wassermann test in all dermatologic cases may bring to light occasional unsuspected positive reactions. It will, likewise, be granted that the occurrence of a positive reaction does not necessarily proclaim a given lesion to be luetic. Still further, it will be generally conceded that, in a certain percentage of undeniably specific cases, a negative report will be returned.

These facts alone should serve to free us from what Lisser has so aptly termed the tyranny of the Wassermann test.

Without discussing the virtues or the defects of laboratory reports, I believe we may accept two statements:

1. The blood reaction may be conclusive, or it may be of value simply as confirmatory evidence.
2. Clinical signs may be conclusive, or they may be of value simply as confirmatory evidence.

When thus stated, the clinical side of the case seems to balance evenly with that of the laboratory. In the minds of the physicians at large, the tendency has been to exaggerate the importance of laboratory, and to minimize the value of clinical findings.

Now, while we urge that the laboratory be called upon in every case either for original diagnosis or for confirmation, we must urge an equal fidelity to the available clinical signs. And I believe it is especially incumbent upon us as dermatologists to strive to maintain that skill in clinical diagnosis which was the glory of the older school in which many of us were trained and which the easy path to the laboratory may tempt us to neglect.

A few brief case histories will illustrate certain definite points:

Case 1—Mr. S. complained of lesions involving the scalp, forehead, and the flush area of the face. It seemed, obviously enough, a seborrheic dermatitis. With the use of sulphur and salicylic acid the eruption improved, but did not disappear. For several weeks the lesions seemed upon the verge of resolution. At length, there developed a polycyclic arrangement upon the forehead which showed a suspicious degree of infiltration. For the first time, a complete history was taken, and the fact of an initial lesion some twenty years previously was elicited. A blood test was then made with negative result. Nevertheless, all local treatment was suspended, and the lesions promptly vanished under the internal administration of mercury and iodide.

This case illustrates a faulty taking of the history. It illustrates also the neglect of laboratory aid as promptly as might have been useful. Finally, it illustrates the diagnosis through clinical signs after the failure of the laboratory.

Case 2—Mr. B., 57 years of age, had a small patch of leucoplakia on the inner aspect of the lower lip. He gave a history of chancre twenty-five years ago, but had had two years of intensive mercurial medication. Both blood and spinal fluid were reported negative. In spite of these findings, a tentative clinical diagnosis of syphilis was made, and a further

*Read before the Section on Dermatology and Syphilology of the California Medical Association, Fifty-second Annual Session, San Francisco.

blood Wassermann was ordered. The return from this test was strongly positive, and under arsphenamin therapy the lesions disappeared.

This case illustrates the fact that a negative Wassermann report is not to cause us to give ground when we are reasonably certain of our clinical signs.

Case 3 is an extreme one—Mrs. P. and her two small daughters all complained of a generalized eruption which was attended with such distressing nocturnal itching that sleep was impossible. The family physician promptly had a blood test performed, and, upon receipt of a negative report, advised the distracted lady that she had nothing to worry about. This illustrates sublime reverence for the laboratory and profound contempt for the acarus.

Case 4—Mrs. N., age 43, divorced, had had a gangrenous condition of the toes for one year. Repeated blood Wassermann tests were uniformly negative. Finally, spinal fluid examination brought a strongly positive report.

Not only this case, but many of the cases we see illustrate the fact that, if we are basing our diagnosis upon laboratory findings, we must often have multiple tests; likewise, if we are basing our diagnosis upon the clinical side, we must study not only the appearance of the lesions, but note their behavior under treatment.

Thompson has described three classes of patients who present themselves for diagnosis: (1) Those with symptoms or lesions which they themselves consider syphilitic; (2) those with symptoms or lesions of which they themselves are doubtful; and (3) those with absolutely no thought of syphilis in their minds.

As in arriving at any diagnosis in general, the time used in the taking of the history is usually well spent. For various reasons, syphilitic patients are prone to lie. Not infrequently they seem bent on testing our skill, and appear satisfied only after the diagnosis is established, in spite of all manner of reticences and evasions. For this reason, the more we can cross-examine without seeming to do so, the quicker the real facts of the case are elicited.

It would be presumptious to attempt before this section any text-book discussion of the clinical diagnosis of syphilis. But I feel sure that no one will misconstrue a general survey of those clinical signs which have been most helpful in my own practice, particularly as it is certain that in the discussion other useful points will be brought out.

The clinical diagnosis of genital chancre is usually easy, but it is assumed, of course, that the treponema will be demonstrated. Extra-genital chancres are not so easily recognized, because of their unusual and unexpected situations. Occurring upon the tongue or lip, an epithelioma may be suggested. The duration of the lesion and the age of the patient are possible aids. While both may exhibit induration, the epithelioma is capable of a much greater degree of hard border besides which its surface is not so smooth and glistening. It also bleeds much more easily. Occurring upon the cheek, there sometimes develops such extensive edema that the characteristic border of the lesion cannot be recognized. About the finger-nails, the tendency to suppuration may be an obstacle to the diagnosis.

In the secondary stage of syphilis, there are certain general characteristics the recollection of which may be of service.

Of course, the earlier the eruption the more general the distribution. But while the early lesions are more generalized, there are special sites of preference, as the edge of the forehead (corona veneris), the angles of the mouth, the nape of the neck, the abdomen, the palms of the hands and, in general, the flexor surfaces.

COLOR

Syphilitic lesions usually present a raw-ham or copper color. This is explained histologically by the infiltration of plasma cells into the corium around the capillaries. If the skin is drawn tensely over the lesions, or pressure applied by a diascope, there remains, after the blood is pressed out, a brownish-yellow stain due to this cellular infiltration. This is quite characteristic.

INDURATION

The same tendency to plasma cell infiltration gives to most syphilides a higher degree of induration than is present in the non-specific lesions with which they might be confused.

CONFIGURATION

Syphilides have certain characteristics of grouping and configuration. They favor serpiginous and gyrate figures, circles and segments of circles, an interrupted circle being most suggestive.

EVOLUTION AND RESOLUTION

There is a wide range in the duration and intensity of the secondary eruption. As a rule, the earlier rashes are more transient and disappear without treatment in a few weeks. The later papular and nodular lesions are more stable, and unless treated may persist over long periods. In resolving, most syphilides leave some degree of stain. This varies somewhat with the complexion, brunettes exhibiting much greater pigmentary changes than blondes. The occurrence of scarring, even though no ulceration has taken place on the surface, is a characteristic of some of the later lesions on resolving. This process of producing scar-tissue in the corium without destroying the overlying epidermis is, according to Wilfrid Fox, practically confined to syphilis and leprosy.

The great general characteristic of the secondary syphilitic rash is polymorphism. The eruption of syphilis may imitate almost any other dermatosis. It may even imitate itself as, for example, a gumma that assumes the appearance of an initial lesion. But the tendency to polymorphism is of service in diagnosis. In conditions such as lichen planus, acne, and psoriasis, a single type of lesion is usually present, while in syphilis one may see at the same time the scaly lesion resembling psoriasis, the shiny papule that suggests lichen and the acne-like pustule.

In a general sense, the character of the cutaneous lesions depends upon the type of skin on which they are found. For example, upon a dry, scaly skin, the eruption will tend to assume a psoriasiform character, while upon an oily skin the syphilides are much more suggestive of seborrheic dermatitis.

Certain cutaneous manifestations are suggestive and some pathognomonic. For example, a fissure at the angle of the mouth is suggestive of lues, although it may be a result of streptococcus invasion; seen in connection with the well-known syph-

ilitic facies, diagnosis is easy. Some of the pigmentary changes are absolutely pathognomonic. One, for example, occurs on the neck, more often in females, and appears as a group of circular depigmented areas. These areas may indicate the spots which were previously faintly discernible macules, but by many they are thought to arise without any antecedent eruption. They are not to be confused with vitiligo, which has a much more map-like contour.

Certain groupings of papules are practically pathognomonic; for example, the corymbose type which indicates a large central papule surrounded by a collection of small satellites. Moist papules, or condylomata, are of exceptional diagnostic interest, as such lesions are seen in no other disease.

MUCOUS MEMBRANES

In the absence of a specific history, especially if concomitant signs are failing, the diagnosis of the lesions of the mucous membranes may offer perplexities. These lesions afford material for comprehensive study all by themselves. At this time, it is well to enumerate some of the possible sources of error. The occurrence of mercurial stomatitis is usually detected because of the knowledge that the drug has been taken, together with the fact that it occurs less frequently on the tongue than the syphilitic erosions. It is seen most often on the gums or cheeks, is more sensitive, and is usually accompanied by signs of salivation and characteristic odor of breath. Aphthous stomatitis is more inflammatory than syphilitic patches, and shows a fine, reddish halo about the lesion.

Erythema multiforme may occur in the buccal cavity without lesions upon the skin. This, too, is painful and inclined to develop vesicles which rupture, and leave superficial ulcerations. Psoriasis, lichen planus and lupus erythematosus, leucoplakia, Vincent's angina, epithelioma, and tuberculosis are all to be considered in the list of possibilities.

Perforation of the hard palate is usually regarded as definitely syphilitic, and indurative atrophy of the tongue is always to be considered in searching for late signs.

SYPHILIS OF THE APPENDAGES OF THE SKIN

Syphilitic alopecia occurs in the secondary stage, and may take the form of diffuse thinning such as occurs after many constitutional infections, or more characteristically, in patches which give the so-called moth-eaten aspect. Loss of hair may occur after destructive lesions have involved the scalp and healed with scar formation. Certain forms of alopecia areata, particularly in young subjects, are possibly the result of congenital syphilis.

NAILS

The diagnosis of syphilitic lesions of the nails is spoken of lightly in text-books as being easy because of the presence of concomitant signs, etc. My personal experience has been the contrary. The diagnosis of indeterminate nail lesions in the absence of specific history has always presented difficulties not encompassed by most writers. Aside from streptococcic infections, the most usual diagnosis is, perhaps, psoriasis. Characteristic evidence of syphilitic infection is the pronounced thickening of the nail at the distal extremity, the hypertrophic tissue being unduly soft. Varney has described as pathognomonic a concavity of the surface which he calls saucer-shaped nails.

Inasmuch as the complement fixation test is less dependable in the later stages of syphilis, the clinical recognition of the tertiary lesions is of the greatest importance.

The nodular syphiloderm is to be differentiated from epithelioma and tuberculosis. Upon either the skin or the mucous membrane, cases will be found which are difficult for the most astute clinician, however nicely the differentiation may appear in parallel columns on paper.

The evolution of an epithelioma is slower, as a rule; its borders are more everted, and there are glandular enlargements. The age of the patient may also help in a corroborative manner.

In the breaking down of the syphilitic nodule, the tendency to form contiguous arcs of circles is one of the most dependable helps in diagnosis. In contra-distinction to this definite tendency toward regular circular lines in syphilis, the tubercular lesion often manifests a corresponding leaning toward irregular lines and angles. The tubercular lesion is also more painful.

Upon the leg the broken-down nodule may be confused with varicose ulcer and erythema induratum. The grouping of circular ulcers on the upper third of the leg is characteristic of syphilis, while varicose ulcers most often involve the lower portions, are irregular in outline, and are surrounded by pigmented and often eczematous skin. Erythema induratum usually occurs in young women, and the lesions are accompanied by a degree of pain which is disproportionate to their indolent aspect. The diagnosis is sometimes made obscure by the tendency to describe "punched-out" ulcers as characteristic of syphilis. I emphatically repudiate any such sentiment. Erythema induration may present a typical punched-out appearance; so may epithelioma and, sometimes, varicose ulcers.

The scarring which results from the healing of syphilitic nodules is often so characteristic that the diagnosis may be suggested by it. A white center with relatively narrow border of sepia-brown color is strongly indicative of syphilis.

350 Post Street.

DISCUSSION

Thomas J. Clark (Oakland Bank Building, Oakland)—The title of the author's paper, "The Clinical Diagnosis of Syphilis," should arouse all the enthusiasm of the dermatologist in helping to restore to medicine in general the most careful examinations for all skin cases.

The very efficient work of the laboratories today gives a short cut in the syphilitic field that is deadening to the more substantial and enlightening clinical examination.

Dr. Chipman states the case as one of offset or balance as between the laboratory findings and the clinician. That may be very well for keen observers, but where does the laboratory lead us as we get more remote in time from the initial infection? I think he will agree there is much too great reliance given to negative reports in judging the true status of the patient. It would appear that medical men, in examining patients, are confronted with so many situations that may be interpreted variously—they gladly look for a "yes" or "no" answer from the laboratory.

We have to realize that medicine is still an art, employing a very few scientific aids.

The clinical recognition of syphilis involves its differentiation from so many other skin processes, it is the part of wisdom that this protean disease should be classified as a part of dermatology. No one can be better able to recognize syphilitic lesions, all their variations in distribution, configuration, color, and permanent changes after resolution, than the skin man.

It is well to keep one's perspective in looking for syphilis—the start from the initial lesion of slow development, building up of infiltration of closely crowded cells, the gradual diffusion through the lymphatics, to the general system with its widely distributed and symmetrically located lesions, to the gradual recession of the infection, to comparatively narrow localization in the late stages. Then, too, in its inflammatory characteristics syphilis is sluggish, subacute or chronic, and does not easily suppurate. The infiltration with cellular deposit goes on from a central point and progresses outward, leaving a gradually clearing central depression. Syphilis, for a time, builds up tissue on tissue, and this is eventually absorbed and leaves connective fibers to replace the essential parenchyma. This feature of gradual resolution with scarring, and then invading new situations, it is very well to recognize as a cardinal point in diagnosis.

The lack of subjective symptoms is a striking one in most syphilitic lesions. It is often surprising to see extensive lesions in the mouth and throat, and the patient offering very little complaint. The bone pains and headaches of the secondaries are exceptions. At this stage, the patient is often very miserable.

Of course, the experience of the dermatologist precludes his mistaking such diseases as seborrhoeic dermatitis, pityriasis rosea, psoriasis, alopecia areata, acne vulgaris, lupus vulgaris, erythematous lupus, epitheliomata, and leprosy, but about all of these it is less easy for the physician of limited skin observations to feel content in his mind.

The distortions of development and the bone lesions of hereditary syphilis may be mistaken for tuberculosis.

Howard Morrow (380 Post Street, San Francisco)—Our experiences with clinical laboratories in the matter of dark field examinations have been unsatisfactory. This applies particularly to dark field examinations for treponema pallidum. The mode of procuring the serum for examination is very important, and careful and prolonged examinations are frequently necessary; consequently, it is essential for physicians who are handling this type of disease to be equipped and trained for dark field examinations.

The Wassermann reactions are so standardized that the reports from most laboratories are satisfactory. In early lues it is seldom difficult to make a positive clinical diagnosis, so the Wassermann reaction is rarely essential. The one exception to this statement is when spirochetes cannot be demonstrated and the Wassermann reaction becomes positive before the appearance of secondary clinical signs. In such cases, the blood should be examined every few days, as it is important to start abortive treatment as early as possible.

Hiram E. Miller (380 Post Street, San Francisco)—Syphilitic patients that are referred to the dermatologist or syphilologist for aid in diagnosis generally fall into one of the two following groups:

1. Patients with a syphilitic lesion, but with a negative complement fixation test.

2. Patients with a positive complement fixation and a non-syphilitic skin lesion that has not responded to anti-luetic therapy.

Dr. Chipman has very ably brought out the many causes for this. The medical profession, however, is not solely responsible for this state of affairs. A patient is often unwilling to accept a diagnosis of syphilis when he knows that his blood report is negative.

Unfortunately, most of these syphilitic patients that we see have late syphilis. The early ones, in whom the chances of cure are most ideal, are referred to the laboratory man for consultation. He often is less experienced in dark field examination than the dermatologist, and knows little or nothing of the clinical aspects of the disease. I cannot agree with Dr. Chipman when he states that the clinical diagnosis of genital chancre is easy. The primary lesions that have been cauterized, that have a superimposed dermatitis from medication, or that are associated with a Ducrey or gonorrheal infection, are very frequently met with. The correct diagnosis of such lesions is often most difficult, while an incorrect one may deprive the patient of the early and abortive treatment to which he is entitled.

In the differential diagnosis of syphilis of the nail, Dr. Chipman does not mention ringworm of the nail. I think it is one of the most common and most difficult diseases to differentiate clinically from syphilis of the nail.

Dr. Chipman states that "syphilitic patients are prone to lie." When one considers the intimate nature of the information that we ask them to divulge, I think they are remarkably frank and honest.

J. W. James (Sacramento)—Dr. Chipman's paper brings aptly to the front the oft-discussed question of too much reliance on laboratory methods, and not enough skill in observation. Naturally, in this age of mechanics and applied engineering, our training is along paths of exactness with scientific proofs of theories before they are accepted as facts. We seem entirely surrounded by gauges and measures and all kinds of meters. We would take, with great misgiving, an engineer who gave his opinion of some contemplated engineering work without making computations and giving figures.

In an age when no such methods as we now have existed, medical men depended entirely on close observation, and we are forced to admire the acuteness of some of their keen intellects. Their observations on the eruptions and other manifestations of syphilis have not been greatly improved in our time. They lacked what we lack without the laboratory—a more nearly exact diagnosis. I firmly believe the most beneficial results will result from using the laboratory last as an additional evidence until such a time as laboratory proof is final and always sure. A given case that has a negative Wassermann and yields to mercury and iodides is very presumably syphilis, but we are not sure. How are we to prove that some other disease or some well-known and self-limited disease has been cured or coincidently relieved under treatment? Chills and fever may dissipate under the administration of quinine, but would we presume to declare that this fact alone is a proof of malaria?

The primary and secondary symptoms are most puzzling, although the hidden gummata of the tertiary are far from simple. Tabes, for example, would still be a dark subject except for exact methods, although keen observation was quite right concerning the cause of this malady before the use of the Wassermann test.

I believe a good method to follow is, after all clinical evidence possible has been sifted, a presumptive diagnosis. Then add the laboratory findings in parallel columns for or against the presumed diagnosis.

As Dr. Chipman has well pointed out, laboratory diagnosis alone is fatal and would, in the long run, prove less valuable than clinical methods alone. In the perfection of both methods, we are slowly traveling toward a more nearly exact science.

Robert B. Hill (Merchants' National Bank Building, Los Angeles)—In the attempt to diagnose syphilis, all possible aid should be employed; the early

lesions, contrary to the views of many, are sometimes quite difficult to classify. As Dr. Miller has said, the demonstration of spirochaetes is many times rendered impossible by cauterization and applications of mercurials. The only safe plan to follow is to avoid using any kind of medication on a genital sore until the presence or absence of spirochaetes can unquestionably be determined; it may mean one dark field examination or it may mean many.

I do not believe that anyone can become so proficient in the diagnosis of skin lesions by clinical observations alone, that he can always be sure whether or not a particular lesion is syphilitic. As evidence, a case recently presented with a rather atypical eruption scattered diffusely over the entire body, the patient had been under the observation of a very prominent dermatologist for six months, and at one time during the period had been quarantined for smallpox for seventeen days. A Wassermann test showed a strongly positive reaction, and the skin lesions promptly disappeared under anti-luetic treatment.

William L. Rich (Boston Building, Salt Lake City, Utah)—Dr. Chipman has very well stressed the important points in the skin manifestation of syphilis. I quite agree with Dr. Miller that the clinical diagnosis of genital chancre is often most difficult, and I also agree with Dr. Chipman that it is now made easy by the dark field examination.

It may be well to add that in cases of treated primary lesion or where a secondary infection prevents one in obtaining suitable material for a dark field examination, puncturing the adjacent lymphatic gland will usually clear up the diagnosis.

As an example, the following case is cited: G. T., age 21, was seen in consultation in August, 1922; had a marked induration and oedema of glans penis, with painful micturition. No primary lesion was visible. The history was suggestive, as well as the induration. The right inguinal gland was punctured, and ½ cc. of normal saline injected. The needle was then rotated at various angles until one was able to draw up a small quantity of slightly blood-stained gland juices which, under dark field examination, revealed many treponema pallidum. Treatment was instituted immediately. At the same time blood was taken for a Wassermann test, which later proved negative. Without the use of further local treatment, the lesion rapidly melted away, and this individual has since had several negative Wassermann tests as well as negative physical signs and symptoms.

I also agree with Dr. Chipman in his discussion of serological diagnosis versus careful history and an examination by a trained eye of clinical manifestations. The latter, of course, being vastly the most important, and the former a valuable aid in many doubtful cases.

Doctor Chipman (closing) — It is gratifying that the simple outline presented should have evoked such valuable discussion. Dr. Miller would seem to dissent in two or three details, but I believe that, in reality, we are in accord.

Dr. Miller thinks the clinical diagnosis of complicated chancres is difficult; so do I. My contention was that the clinical diagnosis is usually easy, an opinion I am bound to retain, since there is nothing much easier in dermatology than the clinical diagnosis of the usual or typical chancre. Dr. Miller is correct in stressing the difficulty of differentiating ringworm and syphilis of the nails by their clinical appearances. I tried to emphasize the difficulty of finger-nail diagnosis in general. Tricophyton infection assuredly belongs in the group concerned.

The essence of the paper is a plea for progress in the clinical recognition of syphilis. It is obvious that both clinical and laboratory aids are needed. Sometimes one suffices, and sometimes the other; oftentimes the two combined are not enough.

ACUTE EPIDEMIC ENCEPHALITIS

By JOHN W. SHUMAN, M. D.

The object of this article is to discuss some points referable to the diagnosis of acute epidemic encephalitis, to briefly report my experience with the disease in Syria (ten cases) during the winter of 1922-1923, and a word concerning its treatment with anti-encephalitic serum.

Acute epidemic encephalitis is one of the three important non-suppurative inflammatory diseases of the central nervous system. The other two are poliomyelitis and syphilis. Poliomyelitis and encephalitis are both really poli-encephalomyelitis, the one chiefly affecting the cord and the other the brain. Little difficulty is experienced in differentiating between the two if the disease is a clear-cut brain or cord lesion, but if it is the medulla oblongata that is involved the diagnosis is then most difficult. If the patient lives—and most do—the flacid paralysis and muscular atrophy will be in favor of poliomyelitis. Poliomyelitis usually occurs in summer, and encephalitis in the winter; but it must be remembered that both may attack in the fall of the year.

Syphilis does not often produce a clinical picture of encephalitis. A connecting point, between the two diseases, however, is the apparent existence in encephalitis of a progressive cerebral disease coming on long after the acute illness and separated from it by a long period of seemingly good health. Especially is this true of the Parkinsonian syndrome. In these late or tertiary cases there is no reason to believe that a new infection from without has taken place. The view now is that the virus, like that of syphilis, may lie dormant for years and then give rise to a more chronic and degenerative process than the one encountered in the primary disease. Another resemblance to syphilis is the Argyle-Robertson or "frozen" pupil.

TEN CASES

From the accompanying chart it can be seen that the greatest number occurred in the winter and early spring months, and that all were young. Seven were lethargic, five had twitchings, six had paralysis of the motor oculi nerve, and small pupils which reacted sluggishly to light. On all that eye ground readings could be secured by Charles Webster, M. D., he found an optic neuritis. A leucocytosis was common, with an increase of the polymorphonuclear cells. Gingivitis was pronounced so early in two of the number that it was thought to be the focus of infection. One had marked herpes labialis. On only one was a spinal puncture made, and that just prior to death. In this disease I feel that the spinal fluid analysis is of such little value, and the puncture sometimes harmful, that it is contraindicated. Eighty per cent of our ten cases recovered, and in them no spinal paracentesis was performed. It is hardly fair to include patient number seven in the mortality list, for his precipitate birth quite likely would have been caused by any febrile disease, and his chances for dying 100 per cent.

Only the two last cases received the anti-encephalitic serum, for we did not receive it until the latter part of March, 1923. It will be interesting to learn if the post-encephalitis effects in these cases will be young, are found frequently as sequelae of the dis-

No.		Age	Sex	Onset	Remarks	Subsequent Data
1.	J. N. of Sidon	17	M.	Dec. 8 chill and fever	Lethargy, twitchings, all reflexes, leucocytosis, herpes lab., gingivitis, paralysis of the 3rd, pupils small and action sluggish, partial ptsosis O. D.	Recovered, December 20. On January, reported as "being stupid and childish."
2.	S. N. of Sidon	16	M.	Dec. 8 chill and fever	Lethargy, twitchings, Kernig, intense headache, pupils small, reaction sluggish, partial ptosis both eyes, paralysis of 3rd.	February, reported as "being childish and stupid."
3.	J. A. of Tyre	20	M.	Dec. 11 fever and vomit.	Lethargy, gingivitis, spleen, leucocytosis, Wassermann, paralysis of 3rd, involving the internal rectus; mild optic neuritis, bilateral pupils small and action sluggish. Treatment—Sera from recovered Case No. 1; no change. Quinine for four days; no change. Anti-luetic had little, if any, effect.	Recovered so that he could leave the hospital. No further word obtained.
4.	R. H. of Sidon	15	F.	Dec. 21 fever.	Lethargy, twitchings, paralysis of 3rd, involving the internal rectus, and action of pupils sluggish.	January 17, recovered, but "stupid and childish."
5.	T. K. of Sidon	13	M.	Dec. 26 chill and fever.	Lethargy, irregular and slow pulse, defective accommodation, partial ptosis O. S.	February, "not bright mentally."
6.	Mrs. —— of Beirut	28	F.	Jan. 1 convulsions.	Lethargy, leucocytosis, paralysis of the 3rd, involving sphincter pupillae, delivered full-term male (see Case 7) the 10th. Spinal fluid 10 cells per cm., slight alkaline, globulin, colloid gold and Wassermann were negative.	Died January, and no autopsy.
7.	Son of Case 6				Child showed no twitchings, but had the alert expression of a baby six months old. Its extremities were cold, respiration shallow, and it died thirty-six hours after birth.	
8.	of Beirut	12	M.	Jan. 22	Lethargy, paralysis of the 3rd, partial ptosis, severe headache.	Recovered.
9.	H. A. of Homs.	20	M.	Mar. 27 fever.	Twitchings, delirium, hallucinations. Treatment—Anti-serum.	Recovery, twitchings slight.
10.	S. N.	21	M.	Apr. 25 fever.	Lethargy, diplopia, paralysis of the 3rd, retention of urine. Treatment—Anti-serum.	Recovery, May 14.

ease is not so fatal is well known. It is also recognized that certain mental states, especially in the young, are found frequently as sequelae to the disease; note the "stupid and childish" in this small group. If Rosenow's serum will lessen this phase, it will have accomplished much. The two cases treated with it "responded" promptly, in that there was an amelioration of all their symptoms within twelve hours after the administration of the serum.

SERUM TREATMENT

The serum used was secured through the courtesy of its discoverer, E. C. Rosenow. "It is an immunized horse serum for the treatment of encephalitis. It is prepared with immunologically identical strains, isolated from the various forms of the acute and chronic cases of the disease. It has proven nontoxic, to contain antibodies, and to have protective powers in animals against homologous and several heterologous strains." A full report of his recent work on the subject can be found in the J. A. M. A., 1922, lxxix, 2068-2071. He states that "the best results are to be expected when the serum is used in the early stages of the disease. It is worthy of a trial in the case which has not become too chronic, because the causative micro-organism has been isolated, and the experimental studies indicate that it is operative long after the onset of the disease. Curative effects of the serum should not be expected in all cases because, while the strains are usually immunologically identical, they are not always so, and anatomic changes may have become such as to make curative effects impossible."

Before giving the serum, the usual precaution in administering horse serum should be taken! The warmed serum should be given intravenously at a slow rate, or intramuscularly. The first dose for adults should not exceed 10 cc.; the subsequent injection should be given within twelve to twenty-four hours, and may be larger according to indications.

A personal communication received January 15, 1924, states: "No cases diagnosed this term in the hospital so far." Signed, Chas. Webster, M. D.

Cerebral Edema and Headache Following Carbon Monoxid Asphyxia—Henry S. Forbes, Stanley Cobb, and Frank Fremont-Smith conducted an investigation to learn something of the physiologic mechanism causing the headache suffered by persons exposed to carbon monoxid gas, and conclude their paper (Archives of Neurology and Psychiatry) by saying:

"Carbon monoxid asphyxia causes a rise in intracranial pressure.

"This rise shows two distinct elevations; the first occurs during asphyxia and is caused by congestion due to a rise in arterial pressure; the second occurs after asphyxia and is caused probably by edema.

"In animals, postasphyxial sypmptoms of cerebral compression are relieved by the administration of hypertonic saline solution, which reduces brain bulk.

"In one clinical case a high spinal fluid pressure was present, accompanied by stupor and severe headache. Immediate relief from symptoms followed an intravenous injection of hypertonic saline solution in this case.

"Finally, it may be said that the carbon monoxid headache is closely associated with, if not directly caused by, an increased intracranial pressure due to congestion and possibly also to edema."

CYSTOSCOPY IN CHILDREN

By BURNETT W. WRIGHT, M. D., Los Angeles

It has not been many years since cystoscopy in adults was considered a difficult procedure, to be undertaken only when other diagnostic means had failed. This was due, in part, to the scarcity of experienced operators and largely to the imperfections of the instruments with which they had to work. The revolutionary changes that have resulted from the intelligent co-operation of ingenious workers and skillful instrument-makers, both here and abroad, are so well known that, today, but few adult patients are denied the advantages of modern urologic methods when they are needed. It yet remains to popularize (if we may use the term) the application of these same principles, with certain necessary modifications, to infants and children. The combined use of the x-ray, the cystoscope, and the examination of catheterized specimens of urine, with pyelography, estimation of kidney function, ureterography, cystography, and blood chemistry, has placed adult urology on a basis so firm that the diagnostic error is smaller perhaps than in any other branch of surgery. These measures are alike applicable to infants and children, with the addition usually of a general anesthetic and the occasional necessity of a meatotomy in both boys and girls, and sometimes an external or internal urethrotomy in male infants. We have not yet found it necessary to do an external urethrotomy to gain access to an infant male bladder.

Disorders of the urinary tract, both congenital and acquired, are being found in children more and more frequently as we develop our technic and suitable instruments become available. But few textbooks include this subject, and until recently but little literature had been published. Nitze, in 1907, described cystoscopy and catheterization of male children as young as eight years; employing external urethrotomy in younger cases requiring an examination. Portner, in 1908, reported successfully cystoscoping boys of two years of age with a No. 12 French observation instrument. At the same time he developed a catheterizing cystoscope of No. 17 Fr. caliber, with which he was able to catheterize the ureters in a boy of eight years. These instruments had unnecessarily long shafts and were too flexible to be satisfactory. On account of the mobility of a child's bladder, making an excursion with each respiration, it is difficult to keep the landmarks in view with a long instrument, and flexibility tends to misalignment of the lenses. The two instruments made, at the direction of Edwin Beer and described by him in 1911, had neither of these faults and were thoroughly practical and useful. The smaller, which he found better for use in small boys, was 15 millimeters in circumference, with a shaft of 9½ centimeters, while the larger was 18 millimeters in circumference, with a shaft of 12 centimeters. By attaching a catheter tunnel, each of these could be converted into a single catheterizing instrument carrying a No. 4 or 5 catheter. Hyman, in 1918, reported cystoscoping more than thirty children under nine years of age, the youngest being a boy of seventeen months. He also emphasized the fact that young children bear genito-urinary surgery well, and mentioned a nephrectomy performed by Kakels on an infant six weeks old who had an uneventful recovery. Stevens has catheterized both ureters in a girl of twelve months, using a Wolff 16 Fr. instrument, and he calls attention to the fact that Kretschmer and Helmholz did the same for a female child of seven months, with an 18 Fr. cystoscope, stating that the urethra in this case was unusually large. In Hinman's series of twenty-six children reported in 1919, the youngest boy was three years and the youngest girl eleven months old.

Every disease or surgical lesion found in the kidneys or ureters of adults, and most of those seen in the remainder of the urinary tract, may occur in children, and it is essential that the physician and the pediatrician, who see these little sufferers first, should attach sufficient importance to urinary symptoms in children. Instead of being a "bad habit," enuresis may be due to the presence of a calculus or be the first symptom of a renal tuberculosis. Conditions that appear trivial may be the basis for serious urinary disease in later life, and while one should first employ other diagnostic aids, as urinalysis of catheterized bladder urine, palpation of kidneys and bladder, x-ray of entire genito-urinary tract and cystography, before subjecting a small child to cystoscopy, if either anesthesia or urethrotomy, or both, must be utilized, these should not be considered contra-indications to its use and should not stand in the way of the information to be derived from the use of the cystoscope. Practically the only element of danger is the renal suppression that may follow pelvic lavage in badly diseased kidneys and this can be avoided by a total 'phthalein functional test, which should always be done before lavage, and refraining in cases that show a very low output of the dye. The various functional tests and blood chemistry findings conform closely to those made in adults.

In little girls, except for an occasional meatotomy, one can usually succeed in introducing a 16 Fr. or 18 Fr. single catheterizing instrument. The new Brown-Buerger 16 Fr. cystoscope has all the advantages of the larger instrument, in that it is now both catheterizing and irrigating. For observation work alone, the instrument made by a German firm, with Zeiss lenses and size 14 Fr., and now being used as a naso-pharyngoscope, is very satisfactory. Where the single catheterizing instrument is used, and it is desirable to catheterize both ureters, the instrument may be withdrawn, leaving a catheter in one ureter, reintroduced, and a second catheter passed in the other side. We have catheterized both ureters in a girl of five years with local anesthesia and have found that a strip of small umbilical tape, soaked in novocaine solution and introduced as far as the bladder-neck with a probe, is a better means for securing the anesthesia than injecting the solution or using cotton swabs. The bladder should be emptied of urine beforehand, else the child may void and wash the novocaine away. As Edwin Beer has remarked, the lower bowel should be emptied with an enema before beginning the cystoscopy "for obvious reasons." Care must be taken not to overdistend these little bladders, and it is better to in-

ject the irrigating fluid with a syringe, rather than from a wall irrigator, as is ordinarily done in adults. This is especially true when there is a cystitis present. We do not distend the bladder with air.

It is sometimes possible, when the lesion is in the kidney, to dispense with catheterizing the ureters by employing chromo-ureteroscopy with Indigo-Carmine and comparing, not only the time of the appearance of the dye from the two orifices, but the intensity of the blue color and the expulsive power as well. An injection, deep into the muscle of 5 cc. of a 0.4 per cent sterile solution of the dye is given fifteen minutes before the cystoscope is introduced.

Our most gratifying results have been in the chronic, recurring pyelitis of little girls, usually found on the right side and most often caused by the colon bacillus, we have employed pelvic lavage with silver nitrate, from 0.5 to 3 per cent, not oftener than five days apart, and the improvement, both clinically and from the urinary findings, has been at times spectacular. One little girl of four years, with a history of pus in the urine for a year and all other symptoms of chronic pyelitis, who had been treated repeatedly with alkalies, had a colon bacillus infection in the right kidney, with the urine from that side filled with pus and bacteria. One lavage with 0.5 per cent silver nitrate rendered the urine pus-free and negative to culture, and caused her to gain two pounds the first week thereafter.

Cystoscopy in children is safe, rational and feasible, regardless of the age or sex, and at times is absolutely essential for an accurate diagnosis and proper treatment. It is not a thing to be done thoughtlessly, but it should not be neglected when indicated. The important thing is to recognize the necessity for it and then to do it.

527 West Seventh Street.

DISCUSSION

Anders Peterson (Medical Office Building, Los Angeles)—I am convinced that cystoscopic examinations should be done in children more often than is our practice at the present time. The main reason in the past for the failure in carrying out this work was the lack of suitable cystoscopes. With the development of the newer cystoscopes this can no longer be an excuse. Another reason is the fact that the examination is more difficult to perform both from the standpoint of the actual manipulations in the smaller subject, and also that a general anesthesia is required in nearly all children. Under general anesthesia the child's bladder makes rapid excursions of considerable degree during each respiratory movement, rendering both satisfactory vision and catheterization of the ureters difficult.

The indications for cystoscopic examinations in children are the same as in adults: Pyuria, hematuria, pain, obscure abdominal masses and suspicious x-ray shadows, either alone or in combination, are the general indications for such examinations.

Wright has emphasized the importance of a careful preliminary study, including catheterized specimen of the bladder urine, combined kidney function tests, and x-ray plates. When these measures are taken, the actual cystoscopic examination can be performed with the minimum amount of manipulation and time.

Robert V. Day (Detwiler Building, Los Angeles)—If these little patients are given adequate urologic consideration, oftentimes we find the same pathologic processes that exist in the upper urinary tract of the adult. I have found the following kidney conditions in children: Sarcoma, tuberculosis, complete duplication of one ureter, stone, pyelitis, and hydronephrosis. Moreover, congenital stricture of the anterior urethra or meatus in both male and female infants, as well as congenital valve in the male posterior urethra, have been observed, the stenosis of the urethra being not uncommon. One does not mean to say that we should subject every child with pyelitis to cystoscopy and ureteral catheterization. However, if infections or urinary symptoms of any kind persist, urologic study should be made and there are scarcely any more contra-indications than in the adult. Cystoscopy in infants is quite as simple as the same procedure in the adult with two exceptions, namely, necessity for anesthesia and the small calibre of many urethras. These difficulties may be overcome by the methods suggested by Wright. I have even used caudal anesthesia in a female child of eight. This, however, was possible only because she was highly intelligent and we had her confidence. Small-sized instruments have been so wonderfully constructed and perfected (the best in the world, by American manufacturers) and there have been trained such an abundance of capable urologists, available in every sizable city, that hardly any excuse exists for the continued neglect seen in the past. Wright has made a real contribution, and it is to be hoped that general practitioners and pediatrists will take advantage of opportunities for the accurate diagnosis and treatment of these cases.

It is amazing to observe how, in certain cases, one or two treatments will clear up infections in children, especially when due to some mechanical obstruction. Obstruction in the urethra may cause at times dilatation and hydronephrosis and at others true nephrosis. In a Japanese girl of eleven, with urine of light color, low specific gravity, clear, with a large amount of albumin and a few hyaline casts—in other words, the so-called parenchymatous nephritis of the older authors—we found an urethra through which only a No. 6 ureteral catheter could be passed. By dilatation the urine became almost albumin-free and the patient showed marvelous improvement as long as she was under observation. Another child, who had been treated for pyelitis for three months in the Children's Clinic, cleared up in a few days following dilatation of a stenosed urethra and catheterization with the cystoscope and drainage of both ureters of a double kidney on the left side. Other equally startling results are sometimes obtained.

William W. Happ (Pacific Mutual Building, Los Angeles)—Until recently the urologic disorders occuring in infancy and early childhood have been much neglected, owing chiefly to the technical difficulties encountered. With the improvement in technic there has been opened up a large field for study, and with the co-operation of the pediatrician and the urologist much can be accomplished.

Of great interest is the question of pyelitis in infants and children, occurring chiefly in girls, and very resistant to medical treatment, owing to its tendency to recurrence. It is important that these patients be studied to determine, first, the type of the lesion; second, whether it is unilateral or bilateral; and third, what the end-result of these repeated renal insults are. Do these kidney infections in childhood clear up entirely or are they responsible for definite symptoms later in life? It is only by careful cystoscopy that these points can be determined and careful local treatment instituted.

While it is true that a general anesthetic is usually necessary, nevertheless the results accomplished justify the procedure, provided that it be not attempted at too frequent intervals.

A PLEA FOR AN IMPROVEMENT IN THE POST-OPERATIVE CARE OF LAPAROTOMIES *

By CARL G. WILSON, M. D., Palo Alto, Calif.

When a captain of a ship is on a voyage, in order that he may know just what the position of his ship is, he frequently studies his compass and his charts, and if necessary takes soundings that he may know the depths of the water in which his ship is. It would seem fitting and proper that we of the medical profession should take advantage of the caution of the mariner, and consider the impressions we are making collectively and individually on the public and on our patients. The object of this paper is to consider this question from one angle, namely, post-operative treatment of laparotomies. If we should ask our patients on whom we have operated their impressions of the operation, I believe their answers would be quite uniform in stating that the operation had helped or cured them, but that the gas pains and suffering following the operation were so severe that they hoped they never would have to be operated upon again. It is this same thought they would convey to the public at large. I consider this one of the greatest hazards in preventing us from persuading a patient to consent to a needed operation. As a result, these people go for months or years before consenting to an operation, resulting in a devitalizing of their system and marked lowering of their nervous tone which greatly increases their convalescent period. Our problem, then, resolves itself into so improving our method, both of surgery and treatment, that our patients will not have gas pains and that the suffering be minimized. It is along this line that I have been working for some time, gathering statistics from over three hundred cases, and the keynote of my work has been simplicity and efficiency. The treatment which I am using is one which any nurse can carry out. Moreover, it is a treatment which has been thoroughly tried out in other conditions, and with which you all are thoroughly familiar.

In considering the post-operative treatments of laparotomies, it is necessary to consider the pre-operative state, as well as the operative state.

PRE-OPERATIVE STATE

Here we are too prone to rush into an operation without a more careful study of our patients from a medical as well as a surgical standpoint.

SURGICALLY

We have at the present time a very efficient aid to confirm our diagnosis, in the x-ray as well as examinations of the stomach contents, feces, pathological examinations of tissue, blood, and urine. The aspirating needle is also a very important factor in some cases. Cystocopic examinations at times are also of benefit. Repeated examinations of our patients aid materially in arriving at a correct diagnosis.

MEDICAL EXAMINATION

Here, I cannot too strongly urge that a thorough medical examination of the patient be made, as it is the keynote of the resistance and vitality and recuperative power of the patient. A careful examination of the circulatory system, the alimentary tract, the urinary tract, the blood, and possibly a Wassermann test. The careful examination of the respiratory system with a test of the lung vital capacity and a very careful study of the nervous system. If we find the patient not in good physical condition, the operation not imperative, it is advisable to put the patient under medical treatment for some time before operating.

PREPARATION OF THE PATIENT

It is my custom to give the patient a dose of castor oil two nights before the operation. The day before the operation, light liquid food. Plenty of water up to three hours before the operation. Enema, an hour before the operation. A hypodermic of 1/12 of heroin and 1/150 of atropin one-half hour before the operation.

PREPARATION OF THE ABDOMEN

Shaving the parts, thorough cleansing, four hours afterward painting with 8 per cent tincture iodine and placing of sterile dressing over the abdomen the night before. At the time of the operation, painting of the abdomen with 8 per cent tincture iodine.

ANESTHETIC

I have found gas oxygen a very excellent and safe anesthetic, particularly so in cases where ether is contra-indicated. The use of gas oxygen or ethel chloride first, then swinging into ether, quickly puts the patient under and prevents the excitement and worry incident to the anesthetic.

George Crile promoted "the art of gentle surgery." You probably recall his simple experiment with two rabbits of the same litter and hutch. One was immediately killed, and slides made from its brain. The other was exposed to the bark of a bulldog for fifteen minutes, then killed, and slides made from its brain. The result was that the brain of the first was in normal condition and that of the other showed every indication of extreme nervous fatigue, cloudy swelling, pigmentation. A similar condition exists with patients who unduly worry or suffer as a result of pain. The result is, that Nature's recuperative power must be divided, part going to re-establish the normal nervous system, the other to the healing of the injured tissues. From this simple experiment, it is obvious why the patient whose mental poise remains normal, and who does not suffer undue amount of pain, makes a prompt uneventful recovery. Whereas, with the other type, the recovery is prolonged, with possible complications and infection.

Fifteen years ago prominent surgeons were priding themselves on the rapidity with which they could perform an operation. The result was that shock, during and after a surgical procedure, was a very frequent thing. Today, however, gentleness is the keynote with careful dexterity. I know no better way to express my views on the subject than the Golden Rule, "Do unto others as you would have them do unto you." When in the abdomen, manipulate the viscera and organs as if they were your own. The result of careful manipulation is so vital to uneventful recovery, whereas the rough handling complicates the operation and the post-operative condi-

* Presented at the Annual Session of the Nevada Medical Association, September, 1923.

tion, and traumatizes the tissues so as to increase the dangers of complications and infections.

CLOSING THE WOUND

My method of closing the wound is to sew the peritoneum with No. 2 plain catgut. The sheath, fat, and skin are closed with figure-of-eight, large dermol sutures an inch apart. The skin is also closed with a continuous lock suture of small dermol. The figure-of-eight sutures are then tied over these, on which a 10 per cent solution of argyrol is placed. This is then covered by about fifteen layers of gauze three inches wide by five inches long, over which a piece of oiled silk, a little larger than the gauze, is placed. This dressing is then fastened to the abdomen by strips of adhesive, three inches wide, one on each side, and one top and bottom, half attached to the oiled silk and half attached to the skin; this completely seals the wound.

POST-OPERATIVE TREATMENT

In approaching the post-operative care, it is advisable for us to consider the conditions which usually arise following a laparotomy, and to establish treatment which will prevent these conditions arising, rather than wait until they are well established. The principal conditions which are liable to arise are pain, shock, temporary paralysis of the bowel and secretions of the bowel, nausea and vomiting, acidosis, thirst, hemorrhage, infection, spasm of the muscles, impairment of the function of the liver, kidney, and pancreas. For some time I have felt that a patient who had undergone a laparotomy should, in thirty-six hours, be in a normal condition instead of taking three or four days as the general average. It, therefore, behooves us to work out a post-operative treatment which will not only relieve these conditions, but which will re-establish more promptly the normal functions of the abdominal cavity in a more efficient manner than has been done in the past. It is for this reason that I have been working for some time, that I might perfect a practical, efficient and safe treatment to establish these results. From time immemorial the use of hot applications for the relief of pain and cure of disease has stood the test of time, and is today one of the most popular treatments we have for these conditions. When we consider that a hot saline solution is a natural stimulant to cell activity and relief of pain, we can readily see how apropos 10 per cent hot magnesium sulphate stupes applied over the abdomen would promptly prevent and relieve the conditions following a laparotomy. In over three hundred cases, I have consistently followed out this treatment by applying a 10 per cent magnesium sulphate stupe, using four to six layers of flannel at a temperature of 105 to 110 degrees over the entire abdomen and sealed wound, changing the stupes every hour, keeping them hot with either hot water bag or electric pad.

POSITION OF PATIENT

I have found that Fowler's position is a great benefit, as it relaxes the abdominal muscles, and, being a partial erect posture, stimulates the heart. I change the position of the patients frequently, and have them in a wheel-chair at the end of the third or fourth day for a short time, increasing the time every day.

PAIN

This is one of the most important factors we have to deal with. Some form of opium has been extensively used to relieve this condition—and does relieve pain—but if we recall other physiological actions of opium, it stops peristalsis, stops secretions, produces nausea. These are three factors which are already aggravating our condition. However, if we consider the physiological action of heat, it not only relieves pain, but it stimulates the functions of the cells and increases their metabolism. You can readily see that gas pains would be prevented or relieved by the hot stupes, by re-establishing peristalsis and normal secretions of the bowels. At the end of twelve hours after the operation, I give a tablespoon of milk of magnesia. At the end of twenty-four hours, repeat the dose, and if at the end of thirty hours the bowels have not moved an enema is given.

SHOCK

As in shock the general vitality is lowered, we can also prevent or lessen this condition by the application of hot stupes which act as a stimulant to the viscera and organs, and assist in re-establishing their normal conditions.

NAUSEA AND VOMITING

Washing the stomach out with a 5 per cent sodium bicarbonate solution immediately after the operation, leaving some of the solution in the stomach, helps to lessen this condition. Also three drops of adrenalin solution by mouth every two hours I have found to be of considerable aid. Again, our hot stupes lessen the spastic condition of the muscles, and danger of infection is lessened by the use of hot applications.

ACIDOSIS

This is a very important condition, and we must again thank Crile for his extensive work along this line. It is vital to our patient that we endeavor to prevent this condition. Here, again, our magnesium sulphate stupes are of great importance, as there is extensive absorption of this alkaline solution. We also can administer alkaline solutions by the following methods: hyperdermaclyasis, intervenously, by mouth, proctoclysis; also by leaving the saline solution in the peritoneal cavity at the end of the operation.

PROCTOCLYSIS

This has been used for some time, especially the Murphy drip method, or some modification of it. It has been my experience, however, that the rectum soon becomes irritated and expels the solution. This solution is absorbed only by the rectum, on account of the sacrolumbar curvature of the spine. This, however, can be easily overcome by gravity by a Trinulumberg position. I have devised a simple apparatus which is similar to steep stair-steps, which can be placed at the foot of the bed, elevating the foot several feet which practically gives a Trinulumberg position. This allows the solution to gravitate into the colon without pain or discomfort. In this way I give a pint of the solution every four hours. This may be increased if necessary.

FOOD

Hot water and pellets of ice are given six hours after the operation, and the patient is given liquid

food for forty-eight hours, followed by liquid and semi-solid food.

FINAL CONCLUSIONS

Having carefully observed the results of the use of hot magnesium sulphate stupes in laparotomies, I have compared this treatment to the one I formerly used, which is similar to the one used at the present time. The results of my observation are that the patient at no time suffers intense pain.

The gas pains have been minimized down to slight tenderness.

The intestinal secretions are promptly re-established, and at the end of twenty-four hours the patient is desirous of food. The peristalsis can be elicited with a stethescope in six hours. Gas passes by rectum freely in from eight to ten hours. Excretions of the kidneys remain practically normal. The patient does not complain of thirst, as a result of the absorption of water from the abdominal wall and from the colon. The patients at the expiration of six hours do not appear to have undergone an operation. Their color remains normal, and they are in a cheerful attitude. The small amount of nausea and vomiting has been very apparent.

It is because of these very satisfactory results in a large number of cases that I am presenting this paper to you, with the hope that it may be of as marked benefits to your patients as it has been to mine.

Bank of Palo Alto Building.

The Active Agent in Milk Injections—Believing that the variations in reaction following an injection of milk might be accounted for by the varying bacterial content of the various samples of milk employed, Otto Barkan and R. F. Nelson, San Francisco (Journal A. M. A., January 19, 1924), conducted experiments with various samples of milk. Parenteral injection of milk of low bacterial count (certified milk, 10,000 germs per cubic centimeter) caused fever of 0.5 degree F. for one hour only. Milk of high bacterial count (whole milk, 300,000 germs per cubic centimeter) caused fever of 2.3 degrees F. This fever remained over 1 degree F. for four and one-half hours, and took nine hours to subside. That this difference in febrile reaction is due to bacterial action is suggested by the fever following an injection of a bacterial culture obtained from the whole milk, and is proved by the fact that certified milk when inoculated with bacteria from whole milk and allowed to stand for twenty-four hours gives the same febrile reaction as the whole milk. That, however, the constitutional reaction, for which the rise of temperature has been taken as an indicator, is not due to the injection of bacterial bodies alone is shown by the less intense fever that follows on injection of: (1) the bacteria-free filtrate from whole milk (No. 3), and (2) the sterile filtrate from the bacterial culture obtained from whole milk (No. 5, washings). The active agent in the washings must consist either of bacterial proteins or protein products which are the result of disintegration of bacterial bodies, or of an excretion (exotoxin) of the bacteria. The action of the whole milk filtrate must also be due to these elements, with the addition perhaps of albumoses, proteoses and peptones—the products of bacterial action on the native milk proteins themselves. In other words, the febrile reaction is due to: 1. Dead bacterial bodies (bacterial proteins). 2. Soluble substances: (a) Bacterial proteins from disintegrated bacteria. (b) Perhaps also milk proteins or decomposition products from these albumoses, proteoses and peptones, the result of bacterial action on the native milk proteins. In the author's opinion, the native milk proteins in themselves (and in the amounts used clinically) are inactive.

HAY-FEVER IN THE SONORAN BELT OF THE INTERMOUNTAIN DISTRICT

By H. J. TEMPLETON, M. D., Hiawatha, Utah

In choosing the above title, I have taken into consideration the fact that the Intermountain District consists of countries varying greatly in altitude, temperature, amount of precipitation and, hence, in botanical flora. The flora of the lower, irrigated agricultural valleys differs somewhat from that found in the drier mountainous districts, although I have observed the occurrence of the plants mentioned below in my studies in nearly all parts of the Intermountain country. But for the sake of scientific accuracy, I will limit my statements to that belt in which I reside and in which my studies have been pursued. To define, then, this district, the Sonoran belt of the Intermountain District—it is a sub-mountainous country varying in altitude from about 5000 to 7500 feet, a dry semi-arid, non-agricultural district covered with scrub-cedars and pine. With any Westerner, I believe this definition will suffice.

I first became interested in the hay-fever problem of this part of the West because of my observation of the fact that pollen antigens supplied by the large Eastern drug houses had been sad failures when used in this district in the prophylaxis, treatment, and etiologic investigation of hay-fever. This was undoubtedly due to their being made of the pollens of plants and weeds found in abundance in the Eastern states where they were made, but either entirely absent or nearly so out here. For instance, the commonly called spring type of antigens, composed of extracts of the Eastern grasses, trees, clover, etc., and the fall type containing ragweed, etc., could be of no value in a country where their antecedents did not exist. Therefore, it was necessary that a study be made of the intermountain flora to determine the exact plants responsible for hay-fever, and then to induce some of the large laboratories to collect and make extracts of these pollens for our use. Happily, they have now done this and can furnish extracts of value to us. Another reason for my interest in this subject is the very great prevalence of this pestiferous disease. Contrary to the opinion of even the various authorities on hay-fever, it is even more prevalent in the Western states than in the East. Whereas, Scheppegrill gives the incidence throughout the United States at large as 1 per cent, and states that "It is not as common as in the Eastern and Southern states," I have found it to be far more common. In my particular community, I know of 3 per cent of the population who are sufferers, and there are undoubtedly more that I do not know of.

The thesis of individual hypersusceptibility to foreign proteins, chiefly the pollen proteins of various plants, being the cause of hay-fever has been so definitely proved and so generally accepted that I am not going to dwell upon it at any length, but am simply going to consider it briefly from our local standpoint. The fundamental points of this accepted theory are:

1. Hay-fever is due to a sensitization of the pa-

tient against one or more foreign proteins which are nearly always those of the pollens of plants.

2. These pollens, to be important as the cause of hay-fever, must be wind-borne; i. e., they must be present in the atmosphere, capable of gaining entry to the patient's sensitized mucosa. Plants which are fertilized by insect-borne pollens are practically incapable of causing hay-fever, because their pollens are not found in the atmosphere. This fact clears the reputation of nearly all the garden flowers, such as roses, sweet peas, primroses, daisies, dandelions, clover, sunflowers, and golden rod, which were formerly falsely accused of being major offenders.

3. The suspected plant must be pollenating in the patient's neighborhood at the time of his attack, and must throw off its pollen in appreciable amounts.

With the above facts as a working basis, I have attempted a study of the etiology of hay-fever, by determining what plants with wind-borne pollens existed in large quantities in our locality and were pollenating during our hay-fever season.

The first step in this investigation was a botanical survey of our district to list all the plants and weeds which occur here. Of these plants, we determined which ones were not wind-pollenated and immediately eliminated them from our consideration.

Next, by means of questionnaires, I ascertained the date that marked the onset of each hay-fever victim's annual attack. Then a study was made to determine the date of pollenation of the plants under suspicion. This was done by watching them directly to see when they began flowering, and also by daily examination of the atmosphere for pollen grains. I did this by exposing to the outside air microscopic slides coated with glycerine, leaving them for twenty-four hours and then examining them with the low and high power objectives. By this method the pollen grains showed up plainly, and with a little practice one could easily tell them from the dust and debris, and could generally identify them specifically. Some pollens are round, others ovoid, some rectangular, some oblong. Some are spiculated, while others are smooth. But in general all the pollens of a large botanical group have a common characteristic.

Thus, the grass pollens (the graminae) are round and take a dark blue or blackish stain with Lugol's Solution, on account of the large amount of starch they contain. This distinguishes them as a group.

The compositae family, of which the ragweed (the arch-fiend of the Eastern states) is characteristic, are all spiculated, while the other groups are smooth.

The artemesias (represented by our sagebrush) are all three-lobed pollens and, so, easy to distinguish.

The chenopods and amaranths, in which class comes our Western friend, the Russian thistle, are round, non-spiculated, yellowish in appearance.

When I began my microscopic studies of the pollens found in the air, I could find very few illustrations or microphotographs of the pollens of our Western plants with which to compare my unknown specimens. The best book on the subject is Scheppegrill's "Hay-fever and Asthma," but even it does not give sufficient illustration of our Western weeds. So the only thing I could do was to get a flowering specimen of a known plant, shake some of its pollen onto a glycerine slide, familiarize myself with this known specimen and compare it with the unknown pollens in the air. By so doing, one can become fairly apt at "diagnosing" the unknowns.

After having determined the date of onset of each patient's attack and having found which plants were pollenating at that time, I went further and tested each patient's reaction to extracts of known pollens. I did this by making abrasions on the skin of the flexor surface of each forearm, rubbing in the pollen extracts and noting the presence or absence of wheals in from thirty to sixty minutes. Three abrasions were made on each forearm, with an extra one for a control. These abrasions should be about one-half inch long, two inches apart, and should not be deep enough to draw blood. The known pollen extracts which I used were extracted with glycerine. They gave much better results than dry powdered pollens or saline extracts.

A positive reaction, indicating a state of allergy against the pollen used, was shown by a wheal at the site of abrasion surrounded by a zone of redness. I arbitrarily classed the reactions according to size as negative, one plus (3 to 5 mm.), two plus (5 to 10 mm.), three plus (10 to 15 mm.), four plus over 15 mm. Although some very large wheals were found in a few subjects, there were no local or general reactions of sufficient severity as to greatly inconvenience the patient.

Having found the date of onset of the patient's attack, the nature of the pollens in the air at that time and the particular pollen or pollens to which his skin reacted positively, it was then possible to correlate these findings and to state which one or ones were the offenders.

The town where I am located has a population of approximately one thousand. Out of this number, thirty-two are under my observation or treatment, and there are undoubtedly a few more cases which have not come to my attention. This easily makes the 3 per cent morbidity mentioned above, and this community is fairly representative, I believe, of the Intermountain District in general. Therefore, I conclude that hay-fever is far more prevalent here than throughout other parts of the United States.

The results of our botanical survey showed the presence of the following trees or plants which are known definitely to cause hay-fever:

Mountain cedars (*juniperus utahensis*).
Cottonwoods (*populus macdougali*).
Sagebrush (*artemesia tridentata*).
Shad scale (*atriplex canescens*).
Lambs quarter (*chenopodium album*).
Redroot pigweed (*amaranthus retroflexus*).
Rabbit bush (*franseria deltoidea*).
Russian thistle (*salsola pestifer*).

All of these grow in great profusion, with the exception of the redroot pigweed and cottonwoods. No species of the ragweeds (*ambrosias*) were found. On account of the scarcity of the grasses, I have not been able to study them thoroughly yet, but on ac-

count of this same scarcity, and the fact that practically no hay-fever occurs at their pollenating season, I am inclined to think that they are of little importance except possibly in the irrigated, cultivated districts.

The pollenation time of the above plants was determined by direct observation and by noting the time of appearance of their pollens on the exposed glycerine plates. Both the mountain cedars and the cottonwoods were found to pollenate early in the spring, long before any of our hay-fever began, and so were dismissed as etiologic factors in this locality. About May 20, the shad scale was seen to be blooming, and its round, clear, yellow pollen grains were soon afterward found in the atmosphere. Therefore, it has to be considered as a possible cause of the spring type of hay-fever. All through May and June a great profusion of the winged pine pollen grains were found, but they have been proved to be inocuous by other investigators. About June 15, rabbit bush (*franseria deltoidea*), a composita, begins to pollenate. Early in July, the pine pollens begin to disappear, and round, yellowish pollens belonging to the chenopodiaceae group take their place in increasing numbers up to July 20-25, when they are found in extremely large quantities. Some of these are of a dark yellow color, with their surface somewhat studded like a golf ball. These are the pollens of lambs quarter (*chenopodium album*), others are lighter yellow in color and are identical with known specimens of redroot pigweed (*amaranthus retroflexus*). Still others, and these in greatest profusion, are a light yellow and show an indistinct darker nucleus. These are the pollens of Russian thistle (*salsola pestifer*). Direct observation of these plants gave the blossoming time of lambs quarter as July 19; redroot pigweed, July 19; and Russian thistle, July 18. It is at about this date that nearly all of our hay-fever begins. These same pollens appeared in abundance up to the latter part of August, when they began to disappear. Coincident with their disappearance, the three-lobed artemesia pollens (sagebrush) showed up, and direct observation of the sage showed that it began flowering about August 28. Only two of our cases began to have their symptoms at this time.

Now, as to the time of onset of our patients' attacks—only twenty-four could give me definite dates of onset, so I will consider them only. Two began in May, twenty about the middle of July, and two in August. In brief, then, 83 per cent of our cases started about the middle of July. As this coincides with the date of pollenation of the chenopod group, we should look on it with the greatest suspicion. The one case in May suggests shad scale as the cause of its trouble. The two in August fit in nicely with the pollenating date of sagebrush.

From the above, then, I would conclude that we have three periods of hay-fever to deal with.

First period — Spring hay-fever, beginning in April, May, or June. This could possibly be caused by the trees, grasses, shad scale, or rabbit bush. No cases began, however, at the date of pollenation of any of these except shad scale. Therefore, by the simple process of elimination, it remains as the main cause of the spring type. This was confirmed by strongly positive cutaneous reactions to shad scale on the two patients in this group.

Second period — Summer hay-fever. This type, which composes 83 per cent of our cases, begins about the middle of July, coincident with the pollenation of the chenopods and amaranths represented by lambs quarter, redroot pigweed, and Russian thistle. Of the twenty patients in this group, nineteen reacted strongly positive to Russian thistle. Five of these nineteen gave weaker reactions to redroot pigweed, but I believe this was due to a group reaction, as they are closely related botanically. One case reacted strongly to redroot pigweed and weakly to Russian thistle. However, in spite of this, on account of the scarcity of redroot pigweed here, I am inclined to believe Russian thistle was the offender, and to consider this also as an anomalous group reaction.

All of the nineteen patients reacting positively to Russian thistle gave minor positive reactions to lambs quarter; but in every case these lambs quarter reactions were very mild compared to those from thistle. As lambs quarter is closely related to Russian thistle botanically, both being chenopods, I believe that most of the positive lambs quarter reactions were group reactions due to Russian thistle sensitization. This belief is further strengthened by the fact that Russian thistle is far more prevalent than lambs quarter, and that its pollen is the one found in greatest profusion on the atmospheric plates.

This leaves Russian thistle standing out prominently as the cause of nineteen out of twenty of our summer cases. It fulfills in every respect the requirements which a plant must meet in order to be considered as a major cause of hay-fever. That is, it pollenates locally at the exact time of onset of 83 per cent of our patients' attacks; its pollen is windborne, and is present in large quantities on the exposed glycerine plates; lastly, it covers large areas of ground to the exclusion of almost all other weeds except sagebrush. It is very prolific, and is spreading throughout the country like wildfire.

Third period—Fall or late summer hay-fever—Two of our cases began late in August at the time of the pollenation of sagebrush, and reacted strongly to sagebrush and to sagebrush alone. Therefore, fall or late summer hay-fever in our vicinity is due to sagebrush, our main variety being *artemesia tridentata*. This, like Russian thistle, fills all requirements as a hay-fever plant, and exists over miles of territory. However, it ranks second to Russian thistle in hay-fever etiology.

A few of our cases were of the mixed summer and fall type, reacting to both Russian thistle and sagebrush. One case was a combined spring-summer-fall type, reacting to shad scale, thistle, and sage.

While I have used cutaneous tests for allergy in all my cases to finally clinch my diagnosis, I would express a word of caution against placing too implicit reliance on their results. For the skins of a given number of patients with an identical degree and cause of hay-fever will react widely different to pollen extracts applied to abrasions. Some will react weakly to all pollen extracts; others will have

strong reactions. However, in most cases the offending pollen will react the strongest of all the pollens applied. For example: I have one patient who reacts weakly to all extracts, except a 2 plus reaction to Russian thistle. And yet she has just as definite a Russian thistle hay-fever as some of my other patients who give an enormous 4 plus reaction to thistle, with 1 plus and 2 plus reactions to many other pollens. Like other fields of medicine, the correlating of date of onset, date of pollenation, positive cutaneous reaction, to determine hay-fever etiology is an art, not an exact science, where each patient's peculiarities must be studied.

TREATMENT

My treatment has consisted of gradually ascending doses of the glycerine extract of the pollens to which the patient has been found susceptible, as shown above. Some authorities treat on the basis of group protection, stating that treatment with the pollen of one member of a botanical group will afford protection against the pollens of other plants of the same group. This principle is, doubtless, of value when two plants of the same group are pollenating at the same time and the exact determination is difficult, as in the lambs quarter-Russian thistle problem mentioned above.

However, it is my belief that treatment with the pollen of the exact offender is far preferable to group treatment. For the most part, treatment has consisted of Russian thistle extracts, with a few cases treated with sagebrush or shad scale. Treatment was begun about six weeks prior to the usual date of onset. The initial dose was 2½ pollen units, given subcutaneously, a pollen unit being equivalent to one one-millionth of a gram of pollen. This was gradually increased at tri-weekly intervals until 1000 pollen units were being given at each dose about a week before the patient's anticipated attack. The whole theory of this treatment in plain language is to get the patient gradually accustomed to the large amount of pollen extract which will be in the air and gain access to his system during the hay-fever season. On account of the fact that the pollen of Russian thistle exists in such abundance in this country, it has occurred to me that 1000 units given as above might not be enough to accustom one to large amounts (say 2000 units) inhaled from the air during the summer. So this year I am not going to stop with 1000 units, but am going to give up to 1500, or even 2000 units.

Now, as to my actual results from this treatment. Thirteen patients received complete series of treatments. Four of them obtained practically a complete seasonal cure (90 to 100 per cent relief). The other nine stated that they had secured between 50 and 75 per cent relief from their symptoms. Every patient was greatly pleased, and stated that the treatment was exceedingly worth while. This year I expect to get even better results, by increasing the final dose of pollen, as stated above, to 1500 or 2000 pollen units.

To summarize briefly my views on hay-fever:

1. It is far more prevalent here than in other parts of the United States.

2. It must be investigated and treated here on the basis of a knowledge of our local botany.

3. The main cause of our hay-fever is Russian thistle (83 per cent), followed by sagebrush, and then the chenopods, like shad scale and lambs quarter.

4. Glycerine extracts of pollens are the best for diagnosis and treatment.

5. The final injections of pollen used for treatment should be larger than the present 1000 units. Better work up gradually to 1500 or 2000 units.

DISCUSSION

Albert H. Rowe (242 Moss Avenue, Oakland)—Dr. Templeton deserves commendation on his paper. He has made a careful survey of botanical flora in his vicinity. He is fortunate that the flora is as limited as it is in his locality. In the lowlands counties of California the botanical survey includes from 150 to 250 hay-fever-producing shrubs, weeds and grasses, though, of course, the very important members are usually between 50 to 100. It has been my experience that hay-fever is very common here in California, which is contrary to the usual opinion. We have found that pollen has a very important part in asthma and hay-fever of children, and if careful protein test is not done in a thorough way, the manifestations may be frequently overlooked. The superiority of glycerine extracts are brought out by Dr. Templeton. We are heartily in accord with him in this. They are superior to other extracts, more stable, more active, and can be depended upon for desensitization purposes, and by the use of these extracts a higher percentage of positive tests are uniformly obtained than by the clinical tests.

Tropical Sprue—Walter A. Bastedo and L. W. Famulener, New York (Journal A. M. A.), report on thirteen cases of sprue seen in New York among immigrants. In five of the seven patients who lived, the blood was that of a secondary anemia. In one it was normal. In the other one who lived and still suffers from sprue, the hemoglobin index in July, 1920, was 1.15, with hemoglobin, 46, moderate poikilocytosis and marked anisocytosis. Now, three years later, the hemoglobin is 88 and the red cells, 3,900,000, the index being 1.13, with practically no poikilocytosis or anisocytosis. In the two patients who died, the index was high, and the blood showed characteristics of the blood in pernicious anemia. One severe case began with hemoglobin of 45 and an index of 0.75, but with improvement to hemoglobin, 65, and an index of almost 1. Leukopenia was present in two cases, one a fatal case; the other patient is now improving. In five cases tested, the Wassermann reaction was negative. The blood pressure was regularly low, the systolic ranging between 80 and 110, and the diastolic between 52 and 80. The most noteworthy finding in the urine was indican, which was present in all cases, whether the patients were having diarrhea or constipation. Bile pigment in the stool was regularly present. The duodenal contents showed ample bile in three cases, one shortly before the patient died. The reaction of the stools was highly acid during the periods of highly fermentative diarrhea, but at other times, in some cases, was alkaline. This had no relation to the presence or absence of indican in the urine. In six cases, the sigmoidoscope revealed nothing abnormal except a greater or less degree of hemorrhoids, with, in two cases, excoriation and fissuring at the anus. Five patients showed diseased and pus-exuding tonsils. In two necropsy cases the pancreas was histologically normal and the intestines showed some thinning and chronic inflammation, but not of the marked degree spoken of in the text-books. In three cases a Roentgen-ray study of the alimentary tract showed dilatation and sluggishness of the lower end of the ileum and the cecum and proximal one-third or one-half of the colon.

THE PRESENT STATUS OF THE TREATMENT OF DIABETES WITH INSULIN *

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Progress in the treatment of diabetes mellitus is moving so rapidly that new experimental evidence to be of particular value must be published promptly. Because of this fact, and the care with which the work was done, the editor has acceded to the request of the Section on General Medicine and is publishing the article by Doctor Sansum and his co-workers in an earlier issue than it could be published under the usual conditions governing priority of publication.—*Editor.*

The work of Banting and Best and their associates in the isolation and clinical use of the sugar-metabolizing hormone, insulin, and its specificity in the treatment of diabetes is now well known and accepted. For a detailed account of the methods used and the results obtained by us in the first one hundred cases, the reader is referred to an article which recently appeared in the Journal of Metabolic Research. It is the purpose of this paper to present some of the newer developments of this problem.

I. A SMALL INSULIN FRACTION WHICH IS ACTIVE WHEN GIVEN TO RABBTS ORALLY IN WATER SOLUTION

Murlin, Clough, Gibbs, and Stokes have shown that the respiratory quotient could be raised when extracts of the pancreas dissolved in N/20 Na OH, together with glucose, were given by stomach tube. The alkali was given for the purpose of inactivating pepsin.

Winter used a dilute alcohol solution because alcohol is known to be absorbed from the stomach. He used a crude insulin and reported both significant drops in blood sugar and collapse of the animals. He failed to note drops in blood sugar in other types of solutions. Using the insulin prepared in the routine way, we have failed as yet to confirm Winter's findings.

For over a year, we have been using a large portion of our experimental product in attempts at effectual oral administration. In our first efforts, we endeavored to circumvent the action of the digestive enzymes, assuming that failure by the oral route was due to the destruction of the insulin by the digestive enzymes. We worked with insulin in various solvents and in different types of coated capsules, using as high as 1000 units per dose, but all of this work was frankly negative. It, therefore, seemed to us that some other hypothesis should be followed.

We are now assuming that the present insulin is impure and that protein substances containing it, or to which it is attached, are too large to pass through the intestinal wall without radical digestive changes, in which process the insulin is incidentally destroyed.

Macleod reported that from fish glands he was able to obtain an insulin which was biuret-free. There was considerable discussion at the meeting of the American Society of Biological Chemists, held in St. Louis, December 27-29, 1923, as to whether insulin was actually biuret-free. None of our purest insulin has been biuret-free, and the purest Lilly iletin gives a biuret reaction. Murlin believes that pure insulin will probably be biuret-free. We have spent considerable time in attempting to prepare a biuret-free insulin. We have hydrolized routine insulin with various strengths of acid and produced a biuret-free final product, but as yet this final product has had no insulin activity.

Following this line of thought, we have searched for a fraction of probably smaller molecular weight than the routine, insulin-containing material. The major portion of insulin is precipitated out in an alcohol percentage below 93 per cent. One of us, Maxwell, has isolated a small fraction that is soluble in 98.5 per cent alcohol and perhaps at a still higher percentage. We have found that this fraction of insulin is active when given to rabbits, orally, in water solution. It produces typical falls in blood sugar and convulsions. The dose necessary is comparatively large, but it may be that even this product contains considerable of the orally inactive insulin.

Exp. No. 1

Wt. 1.46 kg. Dose: 112 units given in 45 cc. of 10 per cent alcohol.

When taken	Blood sugar per cent
Initial	.105
End of first hour	.057
End of second hour	.069
End of third hour	.114

Exp. No. 2

Wt. 3.46 kg. Dose: 66 units given in 45 cc. water.

When taken	Blood sugar per cent
Initial	.108
End of first hour	.055
End of second hour	.055
End of third hour	.095

Exp. No. 3

Wt. 1.13 kg. 900 units in 45 cc. water.

When taken	Blood sugar per cent
Initial	.087
End of first hour	.091
End of second hour	.033
End of third hour	.085

Exp. No. 4

Wt. 1.58 kg. 800 units of material used in Exp. 3 in 40 cc. water.

When taken	Blood sugar per cent
Initial	.121
End of first hour	.055
End of second hour	.045

Typical convulsion 10 minutes later.

* Presented to the General Medicine Section at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May, 1924.

Exp. No. 5. Control

Wt. 1.64 kg. 830 units of crude insulin.

When taken	Blood sugar per cent
Initial	.137
End of first hour	.143
End of second hour	.144
End of third hour	.137

We are now attempting, by various chemical means, to ascertain how much of the insulin made in the routine way can be changed into the orally active type. It may be that the drastic methods now used in the preparation of the present insulin will need to be changed to less drastic ones, lest in the process of preparation we are building up too large aggregations of molecules.

II. THE VALUE OF INSULIN ON DIFFERENT DIETS

There has been and still is considerable discussion as to whether the insulin unit has a constant sugar-burning power. Allen believes that the unit has a different value in each patient, and even in the same patient when different diets are used. We have believed from the beginning—and clinical usage has confirmed this belief—that when a patient is kept continuously "sugar-free" the unit has a constant value in patients of widely varying degrees of severity, and on widely different diets when such diets are reduced to the common denominator, sugar-former. The following experiment was planned to ascertain the value of the insulin on different diets. For a long time, this patient had been maintained continuously sugar-free on a diet containing carbohydrate, 91 grams; protein, 79 grams; fat, 193 grams; calories, 2417, with a diet "G" of 156 grams. One of us, Blatherwick, suggested that we vary the elements of this diet as widely as possible, keeping the calories and the "G" constant. For over three years, and in the pre-insulin days determined by diet alone, this patient has had a constant tolerance sufficient to metabolize 52 grams of sugar formers. He has had insulin continuously for nearly two years. He has now gained in weight from 95 pounds to his normal weight of 154 pounds, and his diet was reduced October 30, 1923, to 2417 calories, which is his maintenance level, since he is now neither losing nor gaining weight. The following tables show that we have varied the carbohydrate in his diet from 54 to 113 grams, the protein from 40 to 145 grams, and the fat from 180 to 200 grams, and that throughout the period of the experiment, twenty-three days, he continued to pass subnormal amounts of sugar in the urine. At no time during the course of the experiment was he too sugar-free.

Period I

C.	P.	Diet F.	Cal.	"G"	Tolerance "G"	Insulin "G"	Insulin Kilo Units
54	145	180	2416	156	52	104	80

Day	Vol.	Qual.	Per ct.	Grams	O. A.	N.
1	2050	— +	0.044	0.910	902	14.76
2	1551	— +	0.034	0.550	806	15.66
3	1500	— —	0.045	0.670	924	20.85
4	1850	— +	0.060	1.110	829	18.87
5	1700	— —	0.044	0.750	734	20.74
6	2150	— —	0.039	0.830	757	19.56
7	1400	— —	0.048	0.670	761	20.40
8	1750	— —	0.037	0.650	798	20.87

Av. .767

Insulin No. 246. About 20 units per day recovered in urine.

Period II

C.	P.	Diet F.	Cal.	"G"	Tolerance "G"	Insulin "G"	Insulin Kilo Units
113	40	200	2412	156	52	104	80

Day	Vol.	Qual.	Per ct.	Grams	O. A.	N.
1	1900	— +	0.033	0.620	623	12.16
2	1700	— +	0.033	0.560	653	7.90
3	1365	— —	0.036	0.490	842	5.24
4	1050	— +	0.043	0.450	630	5.05
5	2200	— —	0.029	0.630	756	5.97
6	1860	— —	0.030	0.560	669	4.94
7	1850	— —	0.031	0.570	666	4.97
8	1450	— —	0.041	0.600	765	4.71

Av. .560

Insulin No. 246. None recovered.

Period III

C.	P.	Diet F.	Cal.	"G"	Tolerance "G"	Insulin "G"	Insulin Kilo Units
91	79	193	2417	156	52	104	80

Day	Vol.	Qual.	Per ct.	Grams	O. A.	N.
1	2900	— —	0.022	0.650	626	6.26
2	1350	— —	0.040	0.540	616	6.91
3	1900	— —	0.032	0.600	790	9.84
4	2275	— —	0.023	0.520	736	10.12
5	1980	— —	0.029	0.570	649	9.00
6	1500	— —	0.042	0.630	708	9.03
7	1650	— —	0.030	0.500	554	7.75

Av. .573

Insulin No. 255. None recovered.

We have raised and lowered the caloric value of diets in a long series of cases, adjusting the insulin dosage to correspond to the change in the diet "G," with practically no errors in the estimation of the proper dosage; however, quantitative metabolic work like the above has not as yet been done in such cases. In the series now in progress, we are keeping the diet "G" constant, and varying the caloric value of the diet chiefly by the omission of fat, since Allen claims that the proper insulin dosage is more dependent upon the caloric content than upon the elements of the diet.

III. A PROBABLE CAUSE OF THE IRRITATING EFFECTS OF ILETIN

From the beginning, iletin has been more or less irritating. We formerly worked on the assumption that this irritation was due to the acidity of the iletin, since many lots had a pH of 4.4 to 4.0 or less. For a long time, we attempted to keep the reaction of our product at as close to the neutral point as possible. Insulin is soluble in water solution at a pH of 6.8, but is slowly destroyed at a pH of above 7.0, and insoluble at a pH of 6.6, making the margin of stability very narrow. We have lost many lots of insulin, either from decreases in potency or from precipitation. Some of these losses, we theoretically explained on the basis of minute solution of the soft glass container, thereby increasing the alkalinity of the solution, and others we felt were due to the introduction of slight traces of carbonic acid, which were introduced into the bottle with repeated fillings of the syringe. We, therefore, found it practically impossible to prepare a stable insulin at a pH of 6.8. In the beginning, our then very impure insulin was made up in normal salt solution, and we found such solutions hypertonic. We, therefore, dissolved the insulin in distilled water. After our insulin became less impure, we found that we had a hypotonic solution, and, on examining the iletin, we found it also a hypotonic solution. We, therefore, made up a lot of insulin in physiological salt soluton at a pH of 3.8 to 4, and found it not only stable, but non-irritating. We believe that the irritating effects of the iletin are due,

in part at least, to the fact that the solution is hypotonic.

IV. THE PRESENT VALUE OF THE ILETIN UNIT WITH A DISCUSSION FAVORING THE INTRAVENOUS INSTEAD OF THE SUBCUTANEOUS METHOD OF RABBIT EVALUATION

The variation in the clinical strength of the iletin has and is causing considerable trouble. The following quotation from a letter of Dr. Clowes of Eli Lilly & Company, dated April 2, will convince you that Eli Lilly & Company are fully in accord with our findings of variations in the clinical strength.

"As regards lots 746,255, which you approve as being fully up to strength, we are inclined to believe that this lot is somewhat stronger than the indicated unitage based on animal tests. As regards lot 741,138, of which you complained in a previous letter, we believe that the lot in question was somewhat below the indicated unitage. (We found that lot 746,255 had a clinical value of 1 gram per unit or 40 grams per cc. of the U-40 product, and that lot 741,138 had a clinical value of .75 grams per unit or 30 grams per cc. of the U-40 product.) Both these lots were carefully tested in Indianapolis and Toronto, and were approved at both points as being within 10 per cent of the desired unitage. But, as I have repeatedly stated to you in our correspondence, the difficulties in the way of making these tests are so great that it is almost impossible, in the light of our present knowledge, to guarantee the unitage to as close a point as 10 per cent variation above or below the desired figure."

In our experience in routine lots of iletin, the clinical sugar-burning power has varied, during the past six months, from 0.6 to 1 gram per unit on the same patient taking the same diet. However, the iletin which we have received during the past two months has been worth fully 1 gram per unit or 20 grams per cc. of the U-20 and 40 grams per cc. of the U-40 product.

We had the same difficulty in the evaluation of our insulin in the beginning. Because it is well known that wide variations occur in other types hypodermic of medication, we abandoned, July, 1922, the subcutaneous route as a method of evaluation of insulin.

Our rabbits are kept on an alfalfa diet. Page has shown that the convulsion dose is increased by acid dietaries, and we have been able to confirm these results. The alfalfa diet is a basic diet. The rabbits are used only once per week. If a convulsion does not follow the experimental dose, additional insulin is given that day sufficient to produce a convulsion. This convulsion is antidoted by glucose given subcutaneously, and for a day the rabbit is fed crushed barley. Unless fed with a concentrated carbohydrate food following a convulsion, the animals do not thrive. Our unit is the smallest amount of insulin per kilogram, which, when given intravenously, will cause a convulsion. We find the approximate convulsion dose roughly, and then use a number of rabbits, not more than ten, very close to this range. Our routine yield is so constant that we can often predict the potency of the insulin with a fair degree of accuracy. Such an intravenous rabbit unit has a very constant clinical value in the neighborhood of 1.3 grams. The minimum value is 1.2 grams, and the maximum 1.4 grams. More insulin is lost in the urine by this intravenous method than by the subcutaneous route; hence, this unit is higher in value than the subcutaneous unit.

SUMMARY

1. Evidence has been submitted showing that we have isolated a small fraction of insulin that is active by mouth.

2. Insulin has a constant sugar-metabolizing value on widely different diets.

3. We believe that the present irritating effect of the iletin may be due to the hypotonicity of the solution.

4. In our experience, the value of the iletin unit has varied during the past six months from .6 to 1 gram or from 12 to 20 grams per cc. of the U-20, and 24 to 40 grams per cc. for the U-40 product. Intravenous rabbit units show a more constant value.

The Value of Milk Acidified With Lemon Juice—Alfred F. Hess and Milton J. Matzner, New York (Journal A. M. A.), add fruit juices directly to the milk formulas, instead of giving them to the infants separately and between feedings. Their object in diverging from this practice was twofold—to simplify the technic of feeding, and to render the milk more acid. Lemon juice or orange juice can be added directly to cow's milk without bringing about curdling. By mixing approximately 21 cc. of lemon juice with a quart of milk, its buffer action is markedly reduced and the hydrogen-ion concentration increased from pH 6.64 to about 5.54. In this way, cow's milk is rendered more digestible, and its true acidity in the stomach is made to resemble more nearly that of human milk. Infants who received milk prepared with lemon juice thrived well for long periods. Lactic acid or hydrochloric acid have been added to cow's milk, with the same object in view. One advantage of using lemon juice for this purpose is that it also supplies antiscorbutic vitamin, thus compensating for the deficiency of this essential factor in milk. Egg yolk can be combined with the mixture of milk and lemon juice with but slight alteration of the hydrogen-ion content. This combination is well borne by infants. By this means, a food is prepared which compensates for the nutritional deficiencies of cow's milk, furnishing both the antiscorbutic and the antirachitic factors, as well as additional fat-soluble vitamin and iron.

Duodenal Ulcer—Victor Knapp, New York (Journal A. M. A.), asserts a niche and incisura visualized in the first portion of the duodenum is absolute proof of the presence of duodenal ulcer. The significance of this roentgen-ray sign of ulcer of the duodenum has received ample recognition abroad, while here in America it has been studied but little, with perhaps insufficient emphasis on its importance. Knapp cites one case in support of this contention.

Medical Honesty—Sir Thomas Browne reminds us in eloquent words that there is only one kind of honesty. "Live by old ethicks," he says, "and the classical rules of honesty. Put no new names or notions upon authentic virtues and vices. Think not that morality is ambulatory; that vices in one age are not vices in another; or that virtues which are under the everlasting seal of right reason may be stamped by opinion."

EXTERNAL CANCERS: THEIR TREATMENT AT THE LOS ANGELES CANCER CLINIC*

CHAIRMAN'S ADDRESS, SECTION ON DERMATOLOGY AND SYPHILOLOGY

By A. DAVIDSON, M. D., Los Angeles

Of external malignant affections, the most commonly met with here are the familiar basal-celled epitheliomas. This affection is practically limited to the dorsum of the hands and the skin of the face, and is most common in the latter region on the less mobile parts. This I have drawn attention to before. The frequency of epithelioma in these locations is due to the action of the sun's rays. It is common in the later decades of life, and it seems that at that time some subtile change occurs in the tissues whereby they become sensitized to the chronic irritation of the actinic rays of the sun. That some such change manifests itself in the resistance of the skin is evidenced by the occasional sudden development of many keratotic and epitheliomatous spots in individuals who are not unduly exposed to the sun's rays. These basal-celled growths do not metastisize, and are usually easily cured by any method that destroys the growth. Of this group, however, there are from 10 to 15 per cent that neither x-ray nor radium will cure. These have been classed by Sabouraud as spino-cellular, and are further characterized by their tendency to metastisize in their later stages. It is impossible to recognize this type clinically.

The squamous-celled type, such as we see on the lips and mucous membranes, metastasize early and are, as you all know, difficult to eradicate. In the treatment, the destruction of the growth to wholly prevent recurrence is the ideal aimed at. In the basal-celled type, the agencies in most common use are the curette, followed by acid nitrate of mercury, the chemical pastes, the cautery x-ray and radium. All are in most cases effective if properly applied. Of the chemical agencies, zinc chloride is the most effective, as I believe it exercises a selective action on the diseased tissues. It is, however, more painful than arsenic, so that the latter has in a great measure supplanted it in general use. The application of arsenical paste, if followed by a single suberythema dose of x-ray when the slough separates, is a most effective method of treatment. It is generally supposed that x-rays caused direct destruction of the morbid cells. This is, however, doubtful. The x-ray stops all cell division and thus limits the extension of the growth; but the impression is gaining ground that the treatment stimulates the formation of fibrous tissue so that the cancer cells are strangled, as it were, in their growth. It is this formation of a limiting zone of fibrous tissue that explains the success that follows the use of chemicals and cautery. The action of both are alike in the ultimate, in that they set up a zone of inflammation with subsequent fibrosis at some distance from the lesion; thereby walling off the cancer growth.

In the advanced cases, such as we see too frequently in the clinic, the patient's face is partially destroyed, the eye lost, or the nasal bones, and even the brain exposed. X-ray and radium have utterly failed to stop the destruction, and in the less severe where it has succeeded it has left the bones with a dry necrosis that never can be covered over. With cautery or chemicals, no matter how much bone is destroyed, it rapidly sloughs off and granulates over.

As the best of radiologists admit about 15 per cent failures in the treatment of the basal-celled epitheliomas, why use it at all when we have simpler, more economical and more certain remedies that are everywhere available. The employment of the costly radiation in these cases is too much like buying a forehammer to kill a mosquito. It is claimed—and rightly, too—that radiation leaves a less noticeable scar, but that observation applies only to the very small lesions; the scar remaining in the larger lesions is frequently quite unsightly. In large institutions like our hospital here, the cost of radiation is a serious economic factor.

In the treatment of the squamous-celled affections radiation will occasionally succeed; but the results are too uncertain, so that it is better to have recourse to surgery. We do not favor the use of the knife in these cases, but always use the cautery. How to deal with the enlarged glands in these cases is a debatable question. General metastasis never follows facial cancer, as the lymphatic glands are too numerous to allow general dissemination. The question then arises, are we, in removing the glands, depriving the patient of those barriers that are nature's defense against the spread of the disease. Slight enlargement of the glands is found in all those cases from irritation alone. Not more than 50 per cent of the palpable glands removed and examined show carcinoma, so that, personally, I think that, unless those glands are markedly enlarged, it is preferable to leave them alone and excise them as they become affected.

In the ordinary surgical operation on the lip and breast, our preference is for the cautery rather than the knife, not only because the knife tends to the diffusion of the cancer cells, but because the inflammatory zone produced by the cautery tends to increased fibrosis and consequent destruction of the diseased cells in the margin of the wound. I might recall to your recollection how in pre-antiseptic days it was noted that the cases that freely suppurated were less liable to recurrence. This was probably due to the accompanying inflammation producing widespread fibrosis such as we attain with the cautery.

In cancer of the tongue and mucous membranes, x-ray and radium have been largely employed. Some operators have reported cures by this method, but we have not seen any; but granted cures by radiation are possible, the failures are so numerous that I think the use of radium in these cases is more than a mistake—it is a crime. Our preference is surgical removal with the Percy cautery. Of the other external cancers, those of the breast are the most common. Statistics inform us that cancer in general is on the increase, but whether that applies to those of the breast I have no statistics available; but this we know, that, in spite of careful and radical surgery, our death rate from cancer has not diminished;

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and in surgery of the breast it is somewhat doubtful if the extensive removal of the glandular structures as now practiced has shown any better ultimate results than the old-fashioned method of simply removing the breast.

We have tried x-ray pre-operative and post-operative. The former has been found undesirable, as the x-ray produces a temporary paralysis of the vasomotor nerves which leads to a greatly increased loss of blood during operation. Perhaps if time were no object and the operation was postponed for three or four weeks, this complication would not intrude. Post-operative radiation is undoubtedly of value.

When one sees, as we do, about 1000 cases pass through our clinic annually, we naturally acquire a broad view of the cancer problem. Cancer of the breast is twice as frequent in the unmarried as in the married, while the reverse holds in cancer of the uterus in those women who have borne children. The mammae of a woman who has never nursed is generally characterized by its hard, rather lobular, consistency, while those who have nursed have a soft uniform feel.

One cannot fail to be struck by the disproportional number of cases of fibroid of the uterus that is found associated with non-malignant tumors of the breast. At every menstruation, there is a sympathetic activity manifest in the secretory structures of the breast, as evidenced by the swelling and feeling of fullness. The monthly recurrence of this activity without the natural relief afforded by nursing explains the lobular condition of the breast in women who have not borne children. In the presence of a fibroid, this monthly turgescence is accentuated by the continued contraction of the uterus in its efforts to expel the growth, and this, I believe, explains the greater frequency of non-malignant tumors of the breast in those cases. These growths are all primarily due to oversecretion of the ducts exciting inflammation, which results in occlusion and fusion of the secreting structures. Some of those cases of chronic mastitis ultimately develop cancer, which is not surprising when you consider that many carcinomas seem to develop from slight and continuous irritation such as the pipe produces on the lip, etc., etc. From this point of view, it is not surprising that cancer of the breast is more common in the unmarried. It illustrates again the truth that nature's laws cannot be violated with impunity.

There is a certain type of individual that seems to be almost immune to cancer of the breast and skin. These individuals are hypopituitary, smooth of skin, comparatively hairless, and inclined to obesity. In them the glands of the skin are comparatively inactive; they seem to be immune to seborrhoeal affections that are frequent precursors of basal-celled epithelioma. The breast, which is but a multilocular sebaceous gland, seems in this type to share this immunity. The seborrhoeic and hairy individual supplies practically all our cases of cancer of the skin and breast.

This is not a solitary example of endocrinal influence forming the basis of an immunity. We have all known families that seem to be almost immune to diphtheria, and Marie has shown that the adrenals render innocuous the diphtheria toxins.

I may here direct your attention to another interesting observation in connection with the hair. We rarely see internal carcinomas of any kind in individuals whose hair has become quite white. Nearly all the victims of carcinoma of the uterus are either dark-haired or the graying hair is streaked with broad bands of darker hair above the temples.

With the use of x-rays, sarcomatous tumors of the glands rapidly disappear, but whether subsequent metastasis is less common than after surgical removal, we have not statistics to show. In connection with the use of x-rays on these tumors, it seems to me that I have seen more instances of widely diffused cutaneous metastases after successful radiation of the original growth than used to be seen after surgical removal. As these growths spread by the circulation, it is reasonable to suppose that the vasomotor paralysis that follows on radiation will increase the liability to dissemination, and this may be the explanation of the wide diffusion observed in some of these cases. If this view is correct, better terminal results might be obtained by limiting the radiation to the growth itself and carefully protecting the adjacent surfaces.

RESUME

In basal-celled epitheliomas radiation fails to cure in 10 to 15 per cent of the cases. Other methods are more effectual.

In cancer of mucous membranes radiation is useless.

A certain type of individual seems nearly immune to carcinoma.

In radiation of sarcomas, treatment should be strictly limited to the growth.

Non-malignant tumors of the breast are frequently associated with fibroid growths in the uterus.

419 South Alvarado Street.

The Danish Treatment of Scabies—The ointment which Arthur M. Greenwood, Boston (Journal A. M. A.), describes is made as follows: (1) One kilogram of sublimed sulphur is mixed with 2 kg. of 50 per cent solution of potassium hydroxid (as free from water as can be obtained). Gentle heat is applied until reaction ceases and the solution becomes clear. When the process is complete, one should be sure that the sulphur is in excess to a slight degree. (2) Petrolatum, 225 gm., is mixed with wool fat, 225 gm., without heat. (3) To this mixture is added 375 gm. of the solution of sulphur and potash mentioned above. (4) to 40 gm. of 20 per cent sodium hydroxid solution is added 28 gm. of zinc sulphate. The mixture is agitated thoroughly until reaction ceases, poured on filter paper, and washed thoroughly; then the washed precipitate is added to the foregoing. (5) Liquid petrolatum is added to obtain a total weight of 1000 gm. (6) Five grams of oil of bitter almond is added to check the somewhat disagreeable odor of hydrogen sulphid. The important elements in the ointment are the sulphids of potassium, on which its activity depends, a production of hydrogen sulphid taking place when the ointment is placed on the skin. The patient receives an ordinary cleansing bath, dries himself thoroughly, and afterward rubs the whole of his body, except his head, carefully with the ointment.

UNUSUAL PROBLEMS OF THE SURGICAL PROSTATE *

CHAIRMAN'S ADDRESS: SECTION ON UROLOGY

By LOUIS CLIVE JACOBS, M. D., San Francisco
(From the Urological Department of Mt. Zion Hospital, San Francisco.)

During the last decade, there has been great progress in all urological problems. This has stimulated more than ordinary interest in the study of the surgical prostate. By the surgical prostate, I refer to that prostate which acts as a mechanical barrier and interferes with the act of micturition.

The prostate gland has a tendency to increase in size in a large proportion of men after the age of fifty-five. Statistics show that 33 per cent of men beyond fifty-five years of age are subject to enlargement of the prostate. Again, there are inflammatory diseases of the prostate gland which are of more frequent occurrence than was heretofore supposed. Ohmori of Berlin, in autopsies of thirty-three persons succumbing to a variety of diseases, found the prostate normal in only 21.22 per cent in males over forty years of age.

Though the first mention in history of the presence of urinary obstruction by an enlarged prostate was by Riolanus during the sixteenth century, it remained of no particular practical importance until about one-quarter of a century ago, when the first hypertrophied prostate was totally removed. The surgery of the prostate has improved to such an extent that today, in the hands of the urologist, the mortality is less than 3 per cent. The decrease in mortality is due to a great extent to the preliminary investigations of the patient. This has resulted in more accurate diagnosis concerning the character and extent of the obstruction, as well as improved technic in its removal.

Where there is interference with emptying the bladder, it is imperative to eradicate such interference. The time to operate and the method of procedure are the problems which require solution. In order to illustrate some of these problems, which are frequently encountered, I beg to submit three case histories from my service at the Mount Zion Hospital, San Francisco. These are of unusual interest to the urologist on account of depicting rather extraordinary pathological changes.

No. 1—Mr. E. G., Case No. 31,313, age 48, married, tailor. September, 1922. Present complaint: Frequency of urination, both diuria and nocturia; difficulty in voiding; backache; pains in both legs.

Five years ago, after a long tiresome automobile ride, during which time he had held his urine and had not voided for seven hours, experienced severe pain on urination.

Two years ago, had an attack of "cold in the bladder," with frequency and burning, which lasted for one week.

Six months previously, had a paroxysm of pain, associated with the act of micturition, in the right inguinal region, radiating toward the groin. The pain was so severe that the patient felt nauseated and fainted. On recovery, the nausea and pain had disappeared.

The family history was negative. During childhood, patient had measles and smallpox, and fourteen years previously was operated upon for gallstones. Nineteen years ago had a Neisser infection. Lues denied. Habits good.

Physical examination — Well nourished, hair is graying, and skin slightly icteric. Pupils react and are regular. Glands: Few small pea-size glands in posterior cervical region; slight enlargement of the inguinal glands. Thorax: Lungs moderate emphysema, but no other pathology. Heart: Faint systolic murmur. Blood pressure: 145/100. Abdomen: Negative. Reflexes: Normal. Genitalia: Normal. Prosper rectum: Only moderately enlarged, smooth, and hard.

Urine—Voided urine showed 15 pus cells to the H. D. F.; also an occasional red cell. Residual urine: Over 500 cc. at first examination. At a later date, 1500 cc. was present.

Cystoscopic examination: Prostate intravesically enlarged; bulging of both lateral and median lobes of the nodular variety. Bladder wall trabeculated with sacculations, and a small opening into a diverticulum, which, when explored with a ureteral catheter, proved to be shallow.

Diagnosis—Intravesical enlargement of the prostate gland of the nodular type.

Tentative treatment—Urotropin, acid sodium phosphate internally; and daily silver nitrate irrigations of the bladder, with intermittent catheterizations to empty the bladder. Close attention was also given to the proper dietetic and hygienic care.

Hospitalization—On November 3, 1922, patient was admitted to the Mount Zion Hospital in apparent excellent physical condition. Additional data gained from further investigation showed: Phenolsulphophthalein in two hours was 70 per cent, urea excretion and blood pressure well within normal limits. Catheterized specimen of urine from bladder showed: Specific gravity, 1010; acid reaction; pus cells present; no casts. Wassermann blood test was negative.

Routine blood examination—Hb. 70 per cent. Leucocytosis of 46,800: polys, 4 per cent; small lymphs, 84 per cent; eosinophiles, 3 per cent; bone-marrow cells, 9 per cent. Numerous blood examinations were made, with corroboration of the findings.

Roentgenological examination — Chest negative. Cystogram of the bladder showed multiple small diverticuli. Pelvis: Some increase in the density of the pelvic bones.

Remarks—A diagnosis of leukemia being made on the blood findings, it was deemed inadvisable to remove the prostate at this time on account of the operative risk.

On November 23, 1922, the patient was exposed to deep x-ray therapy, applied over the prostate gland. This followed by a severe reaction; a rise in temperature, general malaise, pain across the bladder and penis, which last from twenty-four to forty-eight hours. A considerable amount of detritus was expelled with the urine. Patient was discharged from the hospital, and tentative treatment was again resumed.

On December 1, 1922, the differential count was as follows: White blood cells, 26,000; polys, 37 per cent; eosinophiles, 1 per cent; small lymphs, 62 per cent.

On December 20, 1922, another x-ray exposure was made. Following this, the blood picture showed a further slight diminution in the leucocyte count, with a concomitant reduction in the number of lymphocytes.

February 7, 1923, a third x-ray treatment was given. There being considerable reaction after each deep voltage therapy, the exposures were timed so that several weeks elapsed between them. There was a progressive improvement in the blood complex after each treatment.

On July 26, 1923, the cell count showed 15,600 whites, of which 64 per cent were polys, 31 per cent small lymphs, and 3 per cent large monos. and 2 per cent transitionals. The coagulation time of the blood was four minutes.

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August 1, 1923, under gas and oxygen anesthesia, a suprapubic prostatectomy was performed. The gland was easily enucleated from its capsule. There was no excessive operative bleeding, and no shock or post-operative hemorrhage was present. On the twelfth day following the operation, patient was voiding through the urethra, and his physical condition was excellent, the temperature and pulse being normal.

August 15, 1923, developed pneumonia, which delayed his recovery.

September 23, 1923, was discharged from the hospital. The blood count was as follows: Leucocytes, 19,000; polys, 48 per cent; lymphocytes, 52 per cent.

May 1, 1923, nine months following the operation, the patient's urological and physical conditions are normal, and the blood picture is as follows: Hb, 68; R. B. C., 4,750,000; W. B. C., 21,000; polys., 33; lymphs., 55; tra, 12.

Pathological examination of the prostate gland—"Sections showed cystic glandular hypertrophy of the prostate with some mild infiltration of round cells. Diagnosis: Cystic glandular adenoma of the prostate. Oliver, pathologist."

If a complete preliminary examination had not been made of this patient, the condition of lymphatic leukemia would have escaped detection; and just what the consequences to the patient would have been are difficult to determine. The diagnosis of leukemia can only be determined by microscopical examination of the blood. Though a rare disease, it is occasionally found associated with infectious diseases such as influenza and typhoid. However, I find no report in the literature of its association with hypertrophy of the prostate. The fatality of the disease is due to a tendency toward hemorrhage. Owing to this tendency and the dangers of shock with lowered bodily resistance, a surgical operation is a grave risk.

The most potent therapeutic agent in the treatment of leukemia is the roentgen ray, which likewise has been highly commended for its efficiency in the reduction in size of a hypertrophied prostate. In the above patient, it was of particular value in improving the blood disease; but its effect on the prostate gland itself was of no value.

A perusal of the literature of the value of x-ray treatment in "surgical prostate," gives one the impression that it is a remedy of great therapeutic value; but my experience in this case leads me to the conclusion that it had no effect upon the prostate in any way. My reasons for so believing are the following.

1. The rectal and cystoscopic examinations preliminary to and following the x-ray exposures showed no change in size or contour of the prostate.

2. There was not the slightest abatement or decrease in the symptomatology.

3. There was no fibrosis of the prostatic capsule interfering with its enucleation.

4. The pathological specimen showed no structural changes of the glandular tissue attributable to the x-ray.

No. 2—Mr. G. D., Case No. 6263, age 58, married, special policeman. July, 1923. Present complaint: Difficulty in urination, associated with frequency and burning. This began six months previously, but about two months ago the burning increased, and difficulty was experienced in passing urine. His physician resorted to the catheter, followed by bladder irrigations, which gave some relief. However, during the past few weeks, at every attempt to urinate, had a sensation of burning, and had difficulty in emptying the bladder.

Was catheterized at the clinic the day before admission into the hospital, and 500 cc. of residual urine was removed.

Family history—Negative.

Past history—Smallpox as a child; three months ago, neuritis involving the shoulder. Venereal denied.

Physical examination—Well-developed man with a good frame and musculature; pupils react to light and accommodation; lungs normal; heart, soft systolic murmur heard at the apex, A^2 equals P^2, both somewhat accentuated. Pulse, 80 per minute; good quality and regular rhythm. Blood pressure, 138/70. Abdomen: No abnormality. External genitalia: Negative. Reflexes: Knee-jerks hyperactive, all other reflexes present and active. Rectal examination: Few small hemorrhoids; prostate hard and enlarged.

July 20, 1923 — Urine analysis: Specific gravity, 1018; alkaline; few pus cells; no casts. Blood urea, 26 milligrams. Phenolsulphophthalein first hour, 30 per cent; second hour, 30 per cent. Blood count normal. Wassermann blood test negative. Spinal puncture negative.

July 23, 1923 — Cystoscopy showed the following findings: Diverticula of the bladder, some intravesical enlargement of the prostate, with marked intraurethral enlargement. X-ray pictures and cystograms of the bladder were taken, showing diverticula of the bladder and an enlarged prostate.

July 27, 1923 — Patient re-examined with a catheterizing cystoscope and previous findings were confirmed. X-ray catheters were introduced into the diverticula, taking almost the entire length of the catheters. Indigo-carmin was injected intravenously, and both ureteral orifices were located and found to be entirely separated from the openings of the diverticula. The indigo-carmin was recovered in normal time. A sphincteric action of the orifice of the left diverticulum was noted. This orifice would open and close around the ureteral catheter.

August 7, 1923—A suprapubic prostatectomy was performed. A hard, nodular, hypertrophied prostate was removed.

September 7, 1923—Patient was discharged from the hospital in an improved condition.

Patient was kept under observation for the following three months, was catheterized at repeated intervals and the absence of residual urine was noted.

The above case is of particular interest on account of the co-existing pathological changes in the bladder and the complete recovery of the patient without further surgery other than the removal of the prostate gland.

It is of frequent occurrence to have diverticula of the bladder co-existing with hypertrophy of the prostate. Proper preliminary routine investigation of patients prior to operation would reveal a great many cases similar to the above, which, due to incomplete investigation, are frequently overlooked.

True diverticula should be differentiated from the small saccules, which are nothing more than shallow depressions located between the trabeculations of the bladder wall. A close cystoscopic study of the bladder mucosa, and the insertion of a soft ureteral catheter into the window of the cavity, proper cystograms taken with sodium bromid solution, followed with a cystogram with the bladder injected with air, will give reliable data as to their presence, size, and location.

The cystogram in the above patient not only corroborated the cystoscopic findings, but also revealed a large prostate, which was of incalculable value in determining the operative procedure. This close-up study with a cystoscope proved that there was no

anatomical connection between the ureteral orifices and the diverticula. One was also enabled to note the sphincteric action of the diverticula, by the opening and closing of their orifices. This sphincteric action was unquestionably due to the muscle tissue present. The diverticula were of the congenital variety and had evidently existed without symptomatology until the prostate gland hypertrophied and produced obstruction at the bladder outlet. Following the operation for the removal of the prostate, the residual urine disappeared, and today, ten months later, there are no symptoms present and no residual urine.

The unusual problem in this case was to decide whether to operate upon the diverticula or to pursue a course such as I took.

No. 3—Mr. M. S., Case No. 27,670, age 60, entered Mount Zion Hospital June 15, 1922, complaining of difficulty in urinating, associated with frequency. He had been using a catheter previous to entrance into the hospital. There was a large amount of residual urine present. The physical and central nervous examinations were essentially negative.

June 16, 1922—Cystoscopy was performed; bladder wall was neither congested nor trabeculated, the prostatic ring showed no bulgings or enlargements of the prostate except a slight "V" picture in the upper angle, but not sufficient to cause obstruction. The prostatic ring at the floor was flat, with no glandular enlargement at this point. The posterior urethra revealed a large glandular bulging at its right lateral wall, which was unquestionably prostatic gland tissue. A large verumontanum was likewise present. Rectal palpation: Prostate not enlarged.

June 19, 1922—Recystoscopy showed similar findings. At this time, the enlarged gland in the posterior urethra, together with the verumontanum, were thoroughly fulgurated.

June 27, 1922—Patient was again fulgurated, and on the following day was discharged from the hospital. After the latter fulguration, the symptomatology completely disappeared, and the patient could empty his bladder.

It is now approximately two years since patient obtained relief, and there is no evidence of the return of either the pathology or the symptomatology.

In the above case, the problem was to relieve Mr. S. of his urinary obstruction, without subjecting him, if possible, to the hazards of major surgical procedure. The results in fulguration of median glandular obstructions have been excellent, and with this in mind, I fulgurated this intra-urethral growth of the prostate. The results in this patient were phenomenal, showing the applicability of fulguration, not only to median glandular bars, but also to intra-urethral obstructions as well. The technic of fulguration I employed has been fully detailed in a previous paper.

With this patient, the treatment was not followed by tenesmus, pain or marked bleeding, or any superimposed infection. But this was probably due to the employment of a retention catheter following the therapeutic procedure. The advantages of this treatment are the shortening of the period of disability and the avoidance of major surgical interference with its consequent dangers.

Fulguration or thermo-cauterization has simplified the procedure in a large number of patients suffering from mechanical obstruction on the floor at the neck of the bladder. It has also been of great value in its applicability to those patients who have had a supposedly complete operative enucleation of their hypertrophied prostate and who have not been able to completely empty the bladder because of either tags of prostatic capsule or small portions of adenomatous tissue still lying in the posterior urethra.

In a perusal of my office records, I find that I have used this method of fulguration in over one hundred patients with, on the whole, very favorable therapeutic results, and it is my intention in the near future to detail the individual cases and the results.

Growth as a Factor in Prognosis—The importance of the effect of growth on organic conditions has not, in the opinion of L. Emmet Holt, New York (Journal A. M. A., April 26, 1924), been generally appreciated. The extent to which the lesions resulting from serious organic disease in early life may disappear because of the changes that take place in the different organs and structures of the body, as a consequence of time and growth, has not been sufficiently taken into account in prognosis. Growth really constitutes a reserve capacity for repair in the different organs, which is of great value in effacing the effects of disease. The body possesses a wonderful capacity for growth, the stimulus to which even yet is very imperfectly understood. In adult life the effects of disease or injury are by the ordinary processes of repair removed only to a degree. This is often imperfect, and it becomes less and less complete as age advances and a general tendency to degenerative changes begins to manifest itself in all the organs of the body. The popular belief that the entire body (excepting possibly the skeleton) changes once in seven years may not be strictly true, but it is known that the renewal and repair of body cells is going on continually during life, most actively while the body is increasing most rapidly in size. Not only is the repair of ordinary wear and tear more perfect during early life, but additions are constantly being made to the cells and fibers that make up the organs and various tissues of the body. Holt has been impressed with the important practical bearing of these facts, but does not believe that they are generally taken into account sufficiently in the prognosis and treatment of disease and deformities of early life.

Value of the Full-time Health Officer—"The value of the full-time health officer is in direct ratio to, first, his knowledge and ability to early recognize all infectious diseases; second, his executive ability in enforcing all laws of sanitation and hygiene; and third, his freedom as much as possible from political entanglements," says E. W. Weis, in the Illinois Medical Journal. "The third condition, or freedom from political entanglements," continues the author, "is to my mind the most important one, and one that is rarely found anywhere. It is unfortunate that the health departments are made a part of a political body." John Dill Robertson took issue with Weis. "What we need in public health is not less politics, but more politics of a better brand," says Robertson. "We hear a great deal today about the training of the man who is to be the health officer. Little is said about his personality, heredity and ability to lead. The training of the health officer, like men trained for other great service, should start at least with his grandfather. Given the right personality and leadership plus a good medical education, such a one will become a successful health officer. Any other training or knowledge that he may have received, will, of course, be that much more to the good. But unless he does have the right personality and experience, no difference as to how much he knows about the science of health work, he will never be able to sell it to the people. Therefore, he will fail."

HISTORY AND PROGRESS OF ANESTHESIA IN CALIFORNIA *

CHAIRMAN'S ADDRESS: SECTION ON ANESTHESIOLOGY

By R. F. HASTREITER, M. D., Los Angeles
(From the Methodist Hospital, Los Angeles.)

Five short years ago, a group of enthusiastic medical anesthetists, recognizing the deplorable condition of anesthesiology, as then practiced by physicians and laymen alike, and realizing the necessity of proper development of this important branch of medicine, met and organized the Southern California Society of Anesthetists, which, together with the active society of Northern California, was destined to play an exceedingly important part in the advancement of the science of anesthesia within the next few years.

To restore order out of the chaotic condition in which anesthesiology found itself and to overcome the stubborn opposition against proper development of the subject as a medical specialty evinced on every hand by surgeons, seemed a herculean task, but the "Fates" were propitious, and history repeated itself by alloting to us a leader in the person of Doctor Eleanor Seymour, through whose untiring efforts and devotion to this great cause, revolutionary changes were enacted, and anesthesiology, after years of dormancy, began to receive the attention it so richly deserved.

The latter part of 1919 found the campaign for improvement, of what was to become the specialty of anesthesia, well under way, and a resolution was unanimously passed by the Los Angeles County Medical Association favoring the limitation of the practice of anesthesiology to regularly licensed physicians and surgeons holding the degree of doctor of medicine from a good medical school.

San Francisco County had pioneered this work as early as 1916, but apparently no attempt was made by them at that time to elicit the assistance of other county units.

During the first half of 1920, all of the county societies were approached on the subject, at the same time being apprised of an interpretation of the Medical Practice Act, rendered by the chief counsel of the State Board of Medical Examiners, which forbade the administration of an anesthetic by a layman, with the result that the House of Delegates of the California Medical Association, on May 12, unanimously adopted a resolution embodying the following provisions:

1. That the administration of an anesthetic is always the function of a legally and educationally qualified medical practitioner.

2. That such administration is best performed by physicians specially trained, or who have made a specialty of the subject.

3. That, wherever available, hospitals and public institutions where anesthetics are administered should employ a physician as an anesthetist.

4. That the society condemns under all circumstances the training and qualifications of lay-persons as anesthetists.

5. That no hospital shall be deemed to have acceptable standards which charges a fee for an anesthetic unless such an anesthetic has been administered by a legally qualified physician.

Coincident with this, on June 30 the Southern California Dental Association went on record as favoring the limitation of the practice of anesthesia to regularly licensed physicians and dentists.

In April, 1921, through the support of the League for the Conservation of Public Health, an amendment to the Medical Practice Act, adding anesthesiology, hours thirty-two, as a requirement for a physicians and surgeons' certificate, was passed by the state legislature, and became a law by the signature of the governor of the state of California.

Heartly Peart, counsel, and Doctor W. E. Musgrave, then secretary of the society, were largely instrumental in bringing this about, and to them all anesthetists owe a debt of greatest gratitude.

The year 1921 witnessed most remarkable progress, among the more important being the granting to anesthetists of a section on anesthesiology by the California Medical Association; a branch to the Southern California Society of Anesthetists by the Los Angeles County Medical Association; the organization of the Pacific Coast Association of Anesthetists, embracing the states of Washington, Oregon, Utah, Arizona, Nevada, and California, and the adoption of proper anesthetic record charts by most of the Class A hospitals of the state, in line with their efforts toward the proper advancement of medicine and surgery.

The achievements in California have been of such a high order, and their effect of such national importance, that the necessary inspiration and enthusiasm have been transmitted broadcast for the formation of such important regional societies as the Canadian, the Mid-Western, and the Southern Society of Anesthetists, whose work has ably supplemented that inaugurated by the anesthetists of the Pacific Coast.

During the formative period of our specialty, California was exceptionally fortunate in having added to her productive citizenry a chemical engineer of international reputation, Doctor Donald Baxter, who, recognizing the absolute necessity of a chemically pure nitrous oxid and oxygen, began its manufacture in a modest way in 1921, and since that time has produced a gas of such high standard and purity, that today it has been practically universally accepted by all the anesthetists of the Pacific Coast.

Many of the excellent results in hazardous risks have been directly attributable to this finished product, and the gratitude of the profession to the man who has made such excellent work possible is deeper than any words of praise can express.

That the humble efforts of the trained medical anesthetist are appreciated, and anesthesia, as practiced by him, has become a true and important specialty is best evidenced by the fact that all accredited hospitals now have him as an official member of the staff, and the surgeon, recognizing his ability, is more and more coming to look upon him (the anesthetist) as a consultant before and after operation.

That the anesthetists of California have brought

* Presented at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May 12, 1924.

to full fruition the high standards set by them a few years ago is now no longer a matter of conjecture, and to see that the advancement so auspiciously begun should be continued unsullied in the future should not only be the desire, but also the duty of all anesthetists who have the best interest of our beloved specialty at heart.

718 Brockman Building.

Mercury Poisoning as an Industrial Medicine Problem — "Daily exposure to an atmosphere containing as small a quantity as 0.02 milligram of mercury per cubic foot of air results in signs and symptoms of poisoning," says J. A. Turner (Public Health Reports). "The histories indicate that daily exposure must continue for two to three months, or more, before symtoms appear.

"It is estimated that in exposure to the above quantities of mercury for three to five hours daily there is a total daily absorption of mercury ranging from 0.771 to 1.285 milligrams, according to the duration of exposure.

"Mercury is volatilized from both the 10 to 20 kilowatt induction furnaces during their operation. This mercury vapor is disseminated throughout the room and recondensed to the metallic form. This is evidenced by analysis of dust samples obtained at various distances from the furnaces, which showed the presence of from 1 to 3 per cent of mercury.

"The objective symptoms of chronic mercurialism are manifested by a copper-colored discoloration of the mucous membrane of the pharynx, the pillars of the fauces, and the gums. This discoloration was constant in all cases and should not be confused with infective inflammatory processes, which it somewhat resembles. The gums are swollen, and there is enlargement of the capillaries. Superficial erosions appear upon the mucous membrane of the gums, and upon the buccal mucous membrane in the vicinity of the upper molar teeth. Perialveolar abscesses frequently occur and cause considerable discomfort. Occasionally there is an appreciable increase in the flow of saliva. Urine analysis and differential blood counts show the urine and the blood to be unaffected by the mercury absorbed. Subjective symptoms are characterized by tenderness of the gums and hypersensitiveness of the teeth, particularly those containing amalgam fillings. Activity of intestinal peristalsis is slightly increased, occasionally developing into mild attacks of diarrhea. Obstinate constipation is developed during absence from the laboratory for one to two weeks. Gastro-intestinal disturbance is manifested by pain due to accumulation of gas; there is often distention and feeling of weight in the hypogastric and iliac regions. As mentioned, there are occasional attacks of diarrhea. Shifting neuralgic pains are occasionally felt in the various joints and in the chest.

"The problem of the prevention of mercurial poisoning in laboratories and industrial establishments can best be solved by inclosing all apparatus in which mercury is used and by conveying the fumes away from the worker's face so that it will be impossible for him to inhale them."

State Homeopathic Medical Society Holds Annual Meeting and Elects New Officers — The California State Homeopathic Medical Society, in annual session at Riverside, May 14, elected officers as follows: C. B. Pinkham, San Francisco, president; E. P. Clark, Los Angeles, vice-president; Lillian Boldemann, San Francisco, second vice-president; Guy E. Manning, San Francisco, secretary-treasurer, and Leroy Bailey, H. L. Shepherd, Los Angeles, and F. H. Cookinham, Joseph Visalli and C. B. Pinkham, San Francisco, directors.

EDITORIALS

FANTASTIC SCHEMES FOR FORMULARIZING AND SOCIALIZING MEDICINE

(Read, approved and ordered published by the Executive Committee of the C. M. A.)

Physicians of Alameda County have been growing more and more restive over the elaborate methods developing there, which are calculated not only to produce a state of socialized medicine, but to reduce this great science to a formula and, in some instances, a code formula at that.

We are convinced that physicians, as well as other thinking citizens, have reason to be disturbed. This is not in the physicians' personal selfish interests, but in the name of the unknowing public, and particularly of the sick of the community. From a personal standpoint, more and more physicians are finding more and more to do in Oakland, a condition that is likely to expand rather than decrease, and for very obvious reasons. Friends of better medicine, including physicians, nurses, teachers, and private citizens, have been supplying CALIFORNIA AND WESTERN MEDICINE with depressing data for some time about a scheme of things medical that should be labeled for what they are.

First, we will call attention to what its sponsors proudly designate the "Oakland method" of handling the health of school children. They do it by a "team method" to which there is no insufferable objection, provided the team is wisely selected, given all necessary facilities for good diagnostic work and sufficient time to do it in. The teams who are diagnosing diseases and otherwise practicing medicine among school children consist, according to a published statement, of:

"One doctor.
Four nurses.
One physical education director.
One optometrist.
Fourteen trained science pupils."

It is reported that one of these "teams" examine from 350 to 400 children a day, and record their findings. Just think of it! Imagine one doctor adequately examining even one-fifth of that number of persons in one day. *Yet, it is findings like these upon which parents rely to safeguard the health and lives of their children.* No wonder competent physicians are saying that some of their little patients about whose future they are most concerned are rated by school authorities as perfect, and others with definite diseases are diagnosed "undernutrition."

After one of these teams—and there are three of them—diagnoses the diseases and defects of 400 children in a portion of a day, the diseases and defects are put together in code on assorted colored school cards. For the information of the doctors? *No.* For the information of the teachers so that "the pupils' health record is always available to the teacher."

It is said that these non-medical persons are not practicing medicine within the meaning of the law

because they employ only drugless methods of treatment, and they say that "you will notice that at no time has a diagnosis been made." This because they record diseases and defects by *code* numbers.

Listen to this:

"When each child's pink card reaches this (statistical) table, any number below a 9 is copied from the card onto the list in the corresponding space opposite the child's name, By this means a complete record is obtained of all suspected defects of the class. A deduction is made for anything marked below a 9. For instance, a child is marked a 7 on teeth —clean, an 8 on posture, an 8 on nutrition, and all the rest 9. His total deduction is 4 (3 for every 6, 2 for every 7, and 1 for every 8). This figure is written on the pink card in a space provided, and also on the Classroom List opposite the child's name. The number of 6's, 7's, and 8's in the class is then added, as well as the number of deductions."

We assume that as soon as these statisticians become familiar with the modern method of selecting special cards by passing rods through cards with holes punched in them in certain manners, they will be able to elaborate their statistics and increase the variety of diagnoses without overworking the statistical department, whose figures furnish the basis for more and more publicity and propaganda. Just think of the speed with which one can practice medicine when all that is necessary to establish the child's grade of health is to run a rod through holes in cards!

Mothers and fathers of Oakland, and to a less extent elsewhere, will make serious mistakes if they accept and rely upon the findings of such hurried, unreliable and often otherwise incompetent data as a guide as to what to do about the health of their children. Diagnoses of diseases and defects are not made by such balderdash, and the earlier the general public finds it out the better for the health of their children.

There is an educated physician in Oakland for about each 600 people, including men, women, and children. They all have offices, hospital connections, and facilities for getting laboratory, x-ray and other assistance. Their ethics provide that they may serve for fees consistent with the patient's ability to pay, whether nothing, little, or much. If a patient doesn't believe in them, then he should go to his favorite species of quack; it is doubtful if many would believe in any quack enough to feel the security that they are asked to accept from the incompetent formularized diagnoses of disease made by the school health "teams." The leaders in this work emphasize the untruthful claim that their work is free to the rich and to the poor alike. This is not a fact; it is paid for by everyone who pays taxes. Even if it were free, it still may be the most expensive service of all unless it is checked up by a physician who does not stultify his own soul by trying to carefully examine 400 patients in one day.

THE TRUE PHYSICIAN AND HOW YOU MAY RECOGNIZE HIM

(Read, approved and ordered published by the Executive Committee of the C. M. A.)

What doctor to call is a momentous question to ever-increasing numbers of people. It always has been a problem, but the many facilities stimulating the "wanderlust" spirit keep ever-growing numbers of people away from home friends and family doctors. The problem is also constantly being accentuated by the breaking down of laws and methods employed by state governments in placing their stamp of approval (license) upon those who treat the sick.

California, as "the world's playground," has an exceedingly large element of floating population. It is also quite well known as a state that puts its stamp of approval upon all sorts of cults and inadequately educated practitioners of healing.

Hundreds of appeals come to medical organizations, medical publications and other medical agencies from guests at hotels and transients of all classes, asking to be referred to a "reliable doctor." Obviously, medical organizations cannot give this information further than to show enquirers a list of members of medical societies and the staffs of of good hospitals.

It is believed that intelligent persons will find little difficulty in selecting a competent physician themselves by measuring them by the following points:

WHAT CHARACTERIZES THE TRUE PHYSICIAN

1. His education is attested by the degree of "Doctor of Medicine" from some worthy institution of learning.
2. His moral, ethical and professional standing is attested by his membership in his county, state, and national medical associations.
3. His standing as a man (or woman) and as a citizen is attested by precisely the same standards applicable to others.
4. His legal standing should be attested by his license to treat the sick. Unfortunately, this license means very little in many states, and in few it is more unreliable than in California.
5. The true physician never practices, never recognizes and never connubiates with those who do practice, sectarian or secular medicine, fads or cure-alls of any sort under any circumstances whatsoever.
6. He considers the patient rather than the disease, and he utilizes all proved knowledge and any or all proved methods in the treatment of his patients.
7. He recognizes that every patient—and every human being for that matter—needs advice calculated to avoid and prevent health dangers, correct existing troubles, and prevent their repetition or progress.
8. He knows that the infirmities of the body, mind, and soul are inseparably linked together so as to require all that science, art, and personality can bring to bear in the patient's behalf. He renders what he can of these services, and he delegates the others wisely.
9. He understands that no one person can know or practice to the best advantage all phases of the great field of medicine; and, therefore, whenever indicated and feasible, he asks other physicians for the assistance he needs.
10. He either maintains, or has contacts which insure, adequate consultation, laboratory, x-ray, nursing, hospital, and all other services necessary for the welfare of his patients.
11. He follows the moral code of his profession,

which insures confidential, sympathetic, consecrated service to his patients in such volume and at such times and in such places as are provided.

12. Like any other servant, he is entitled to a just compensation, but again he follows that provision of his ethics that entitles his patient to service at a compensation entirely consistent with his ability to pay.

13. He neither indulges in nor permits "personal puffery." When his name is seen in the public press, it is usually as the author of some dignified statement about the condition of some patient whose welfare is a matter of public concern. More rarely he may give an authorized interview or write an article for public information upon some health subject. He relies for the growth of his own clientele upon the influence of the ever-widening circle of those friends whom he has served.

14. If older and more experienced, he is ever extending the helping hand to the worthy younger men of his profession. And if a younger man, he is upholding the prestige of those already established. He is always interested in and helpful to worthy members of the ever-enlarging groups of assistants he must utilize to render the best to his patients.

15. He will admit that the best medical education is often inadequate, and he will endorse the statement of Hippocrates that "experience is fallacious and judgment difficult." But he feels that physicians are the only persons even remotely prepared by education and training for leadership in matters pertaining to the improvement of health, the limitation of diseases, and the treatment of sick people.

16. He contributes, when he can, to medical literature; attends and takes an active part in medical society meetings; subscribes to and reads good medical journals; he thoroughly examines and carefully studies his patients, and he always makes written records of his findings. He is never boastful nor inclined to discuss his patients with others. He never guesses; when in doubt, he says so and invites consultation or assistance. He realizes his responsibilities and approaches his problems with the humility, seriousness, and earnestness of purpose that ever characterizes the servant of God or of man and of science.

CALIFORNIA ALSO

The following editorial in the May issue of the journal of the Indiana Medical Association applies with equal force to California and probably most other states. Its reproduction may be more useful than writing another one. In any event, it is a pleasure to thus acknowledge the courtesies that the Indiana Medical Journal extends occasionally to California and Western Medicine.

"About three or four hundred doctors in Indiana who last year were members in good standing of the Indiana State Medical Association are now delinquent in their dues. Presumably, these men know that on and after February 1 they were not members in good standing in the state association, and consequently not entitled to medical defense at the hands of the association for any malpractice suit brought in connection with services rendered while delinquent. **Furthermore, these former members are not receiving The Journal, inasmuch as the postoffice department does not permit us to send The Journal to delinquents.** As a matter of fact, we are surprised to know that there are so many doctors in Indiana who are so careless and indifferent to their own interests that they will neglect as important a matter as keeping up membership in their county and state medical societies. Some of them make the excuse that they are provoked because of a raise in dues, and every man who makes that excuse ought to hang his head in shame, for it does not speak well for his reputation as a person possessed of good judgment. The same men will pay their golf dues, cigar bills, or the cost of many other unnecessary and foolish extravagances, and never say a word. The only reason they object to medical society dues is that the dues are fixed by some of their confreres, and anything that comes from a confrere is looked upon with suspicion. It is high time that medical men improve their conduct in this direction."

THE DOCTOR'S MAIL

We are much gratified with the splendid cooperation from members in all parts of the state, in response to our editorials suggesting that certain types of mail be forwarded to the editor. By way of illustration, we have already received from members nine copies of circular letters and a certain newspaper called "El Internacional." The opening paragraph in the circular letter states:

"In sending you this newspaper, I take the opportunity of making you the following proposition: As the reporter for this publication (the owners of which represent more than sixty Spanish newspapers, as you will see from one of the advertisements in El Internacional), I shall meet all the people who come here from Latin America, and will have the opportunity of recommending your establishment to all the people who come here from Latin America, and will have the opportunity of recommending your establishment to all of them, and of either conducting them to your place of business or of sending them to you with my card. I am ready to do this on the understanding that you will offer me a commission on the account of each customer so introduced."

This explains a point made in the original editorial on the subject. Surely, an offer of this kind is based either upon an amazing ignorance of what physicians stand for, or else the promoter holds a very poor opinion of the sincerity with which physicians practice their ethics, as well as the price necessary to cause cupidity to win over ethics.

DOCTOR FINKELSTEIN'S VISIT

Elsewhere in this issue, Doctor Langley Porter of San Francisco pays a beautiful tribute and an undoubtedly merited compliment both to Doctor Finkelstein and the members of the medical profession of our state. Visits of this character by men of real scientific attainments and who are real leaders in the profession have far-reaching effects upon the cause of better health service to our people. It is always profitable to publish the message such leaders leave with us for the benefit of those who could not receive the message in person. Often, too, these messages are of such great importance that they ought to be incorporated into medical literature.

California and Western Medicine would be glad to have merited comments, such as Doctor Porter's regarding Doctor Finkelstein, when other prominent leaders visit us. Neither California and Western Medicine, nor any other magazine, can make news without information upon which to

build. We have said many times before, and we reiterate, that physicians, medical schools, hospitals, nurses, and other organizations and persons dealing in the broader field of better health are missing many opportunities to permanently record information of value to the cause we are striving to serve. There are important meetings of one sort or another occurring with considerable frequency in different parts of our territory about which we have nothing to say because we cannot secure the information. All members of the California, Utah and Nevada Medical Associations, public health officers, and other persons engaged in medical work are again cordially invited and requested to send news items of any movement of general interest in the broad field of medicine and health.

ORAL ABSORPTION OF DRUGS

If oral absorption were dependable, it would be convenient for the administration of many drugs; such as epinephrine, pituitary extract, insulin, and others that are rendered inactive in the stomach and intestines; cyanide in respiratory resuscitation; digitaloid preparations and others that are apt to cause nausea and vomiting, etc. It would be desirable with drugs whose dosage is very small, and convenient for giving drugs to infants and children. The fact is that the oral absorption of most drugs in man is poor and irregular. These qualities are apt to be disturbing, for serious poisoning from cocain and related local anesthetics occurs from time to time. It may be said that only one drug, namely, nitroglycerine, is absorbed promptly and regularly from the mouth. However, ordinary applications in the mouth are apt to involve the tongue, and this organ has a good absorbing surface for nitroglycerine, as indicated previously in these columns.

Confirmation of the fact that oral absorption is poor in man has been obtained recently by Bachem of the Pharmacological Institute in Bonn. Bachem studied the absorption of tincture of iodine and salicylic acid. No iodide was demonstrable in the urine, and only a trace of salicylate. The application of alcoholic solutions of these agents gave no better results, because the alcohol caused marked salivary secretion which probably washed away the agents and prevented absorption. On the other hand, in urethanized rabbits with ligated oesophagus, the oral application of tincture of iodine, salicylic acid, carbolic acid, morphine, strychnine, antipyrine and veronal resulted in the appearance of iodide and salicylate in urine, convulsions after carbolic acid and strychnine, and slowing of respiration and depression after morphine and veronal. In some instances the symptoms developed with great rapidity. However, these results are not transferable to man, at least, for therapeutic purposes.

If anything, such results indicate the desirability of further study of absorption in man, as it is obviously a function of great concern to the physician. This was emphasized last year by Eggleston of New York in his address before the Section of Pharmacology and Therapeutics of the American Medical Association in San Francisco. For notwithstanding the negative results of oral absorption in man, as far as absence of marked and relatively gross effects are concerned, the possibility remains that certain desirable and important agents might be absorbed in very small quantities from the mouth and produce physiological effects. A notable instance of drug action from almost infinitesimal absorption is the alteration in function and morphology of the thyroid gland from the application of minute quantities of iodine to the skin and other regions without the demonstrable appearance of iodide in urine and other secretions, as shown by the brilliant researches of Marine and his co-workers.

Bachem, C.—Arch. Exp. Path. Pharm., 1924, 101:127, "Über Resorption von Arzneimitteln in der Mundhöhle."
Eggleston, C.—Journ. Am. Med. Assoc., 1923, 81:431, "The Absorption of Drugs."
Marine, D. et al.—J. Pharm. Exp. Therap., 1916, 7:557; Ibid 1916, 8:439; J. Biol. Chem., 1915, 22, No. 3. Absorption of Iodide by Thyroid Glands, etc.

OCCUPATIONAL DISEASES

One of the most interesting and far-reaching developments in medicine today, and particularly in medicine of tomorrow, is the ever-growing list of diseases classed as "occupational" and thereby coming under the control of Industrial Accident laws.

A bill now pending before the New York legislature lists occupational diseases: Anthrax, lead, zinc, mercury, phosphorus and arsenic poisoning or their sequelae; poisoning by wood alcohol; poisoning by any of the benzene group products; poisoning by carbon bisulphide or its sequelae; poisoning by nitrous fumes or its sequelae; poisoning by nickel carbonyl or its sequelae; poisoning by tetrachlor-methane or any substance used as, or in conjunction with a solvent for acetate of cellulose; poisoning by chlorine, bromine, or iodine derivatives of petroleum products, including carbon tetrachloride, tetrachlorethane, methyl bromide or its sequelae; poisoning by formaldehyde and its preparations; chrome ulceration or its sequelae; epitheliomatous cancer or ulceration of the skin or the corneal surface of the eye, due to tar, pitch, bitumen, mineral oil, paraffin, or any compound product or residue of any of these substances; glanders; compressed air illness or its sequelae; miners' diseases, including only cellulitis, bursitis, ankylostomiasis, tenosynovitis and nystagmus; cataract in glass workers; poisoning by gasoline, benzine, naphtha or other volatile petroleum products, or its sequelae; infection or inflammation of the skin on contact surface due to oils, cutting compounds or lubricants, or due to dust, liquids, fumes, gases, or vapors; silicosis (fibroid phythisis due to inhaling siliceous dust), or its sequelae.

If all the items on this list are included for sufficient reasons, as most of them appear to be, any physician can readily picture as many more that we may expect to see on lists within the next few years.

Each new disease that is set up as "occupational" swings in under these laws another large block of citizens who will be doctored and compensated by the state. A few more steps and we will have state medicine. We are not at this time discussing the merits of the situation, but simply calling the attention of physicians to facts so that the final halter won't be slipped over on the blind side. Medicine will be well scrambled when the largest share of it

is controlled by political, industrial accident commissions; the next largest group of sick children controlled by boards of education or official public health bodies, whichever wins out in the present mad scramble for this control; while other large groups are cared for as employes of government, as members of hospital associations, fraternal bodies, and what not.

From a purely selfish standpoint, there is nothing in the situation discouraging to physicians, but as citizens interested in the health and welfare of mankind, there is much that is discouraging.

CAN THE WHITE RACE POPULATE THE TROPICS?

The Time Clock of Eternity

One great trouble with many of our conclusions, statistics and "facts" of other kinds, about medical health and otherwise, is our lack of appreciation of the time clock of Eternity, and our faulty comparisons with human measurements of time. We do not, of course, know the unit of measurement of Eternity's time clock, but there is much to indicate that its second hand, or smallest division, is measured in generations or even thousands of years. We do know that many of our calculations of "facts," progress, and what not are arrived at by the assumption that our puny little man made watches compare second for second with Eternity's timepiece. The faulty man-made conclusions based upon such a ridiculous assumption are exceedingly numerous and of great variety. Only one will be mentioned here and that is, the influence of the tropics upon health and longevity. In no other controversial health subject are there greater differences of opinions.

Many enthusiasts believe that because scientifically applied methods will increase the saving and prolongation of life, therefore, presto, the white man can and is successfully populating the tropics. In like manner, many conclude that because some babies of the Caucasian races born in the tropics live out their allotted lives and that there are some instances where the race has been perpetuated for two, three, or even a half-dozen generations, therefore, again, presto, the white races can populate the tropics. And so on et cetera ad infinitum.

None of these conclusions takes Eternity's time into consideration. We don't live long enough to know what will happen in a score of generations. Looking backward as far as history will permit us to see, we find little consolation for believing that the white races will ever, or can successrully colonize the tropics. Man is, of course, the most adaptable of all beings and living things, but it has not been shown that he is in an entirely separate category.

Measurements of the influence of the tropics on things zoological and botanical that are exotic in the tropics can be easily calculated by our man-made measures of time, and in such measurements we find nothing to encourage the belief that life exotic to the tropics can be successfully propagated there in perpetuity.

SOME BOARDS OF HEALTH PRACTICE PUBLIC HEALTH ONLY: SOME COVER THE WHOLE FIELD OF THE PRACTICE OF MEDICINE

(Read, approved and ordered published by the Executive Committee of the C. M. A.)

We would like to call to the particular attention of physicians the following abstracts of a report by the health office of Indiana (Indiana Medical Journal, April, 1924):

"Every department head and subordinate who comes in contact with the public in the many and varied ways constantly urges and endeavors to teach the public to consult a physician in any and all matters pertaining to the treatment of disease, or as to advice concerning physical welfare. I venture to say there is no other group in the state of Indiana, the organized medical societies not excepted, who are so constantly and persistently and intelligently engaged in an effort to have the public understand that medical matters should be referred only to competent and trained medical men."

Think that over. No wonder that health officer secures the co-operation of the physicians of his community. Compare that sane service policy with some reports of other health boards and make your own deductions as to who will serve best, not only the physicians, but particularly the people of the commonwealth.

"The State Board of Health is rated 100 per cent in membership in the county and state medical society; that is, so far as heads of divisions and departments are concerned. And these heads of departments and divisions, with the secretary and assistant secretary, seek every opportunity possible to meet with, and to discuss with medical societies matters pertaining to public health education. We are constantly referring people to physicians, not only by letter, but by personal contact here at the office. You probably have no idea of the number of inquiries coming by letter from over the state and coming in the form of personal interviews from people in and near Indianapolis as to competent physicians and specialists. In every case we seek to refer them to men of ability and experience in the communities from which the inquiries come."

Another highly commendable feature and one showing that, because the department is limiting its practice to a great specialty, the health officer still holds himself a supporter of the ideals, ethics, and practices of a great physician.

"Dr. McKane, at the head of the Tuberculosis Division, prior to October 1 of last pear, covered practically every county in Indiana holding meetings in rural schoolhouses, as well as in the cities and towns, giving addresses on the prevention of tuberculosis, and carried with him a public health exhibit, moving picture films, moving picture lantern and operator, and with a truck so equipped that moving pictures could be given in rural school buildings with the electric current generated by the motor of the truck. . . . Since October 1, Dr. McKane has been head of the newly organized Division of Communicable Diseases, with Dr. Oilar in that division as epidemiologist, and both these men, not only take advantage of every opportunity they can, but are constantly making opportunities for talking before public meetings on the prevention of communicable diseases."

There are still a few boards of health that keep the highly specialized and difficult medical work with tuberculosis in the hands of non-medical persons. No, we are not prepared to answer the *why* so frequently asked.

Medicine in the Public Press

Children Grow While Eating Oranges!—Presumably with the intention of settling to their own satisfaction the public discussion as to whether oranges or milk constitute the most valuable food for children, the school authorities of our city have reported what to them appear to be some interesting experiments:

These experimenters found that children who consumed one or two oranges a day gained both in height and weight. The press carries tabulated results of these experiments.

As frequently happens to amateur experimenters, particularly in the medical and health fields, the always required essential in experimentation of providing "controls" are often forgotten. In order to prevent the possibility of drawing wrong conclusions, they should, of course, have watched another group of children who had no oranges, to see if they might not also have gained both in weight and height.

After stating that "We do not claim that oranges are entirely responsible for the results appearing below, but they are undoubtedly an important contributing factor," the experimenters draw an interesting conclusion that unquestionably is a fact, when they say in the report that "Another interesting feature of this demonstration, and one which we anticipated, has been the marked increase in the general use of oranges in the entire county. The funds of the Anti-tuberculosis Association have certainly been used to great advantage in this work."

Is Civilization Decadent?—One can find all of the evidence he desires or any answer he cares to put forward upon this question. Among interesting statements that are being given by widely trusted leaders in public thought upon this subject, a little abstract of an article by Anatole France, translated in Public Opinion (London), is worth thinking about:

"For my part I see no sign of decline in humanity. It is in vain that I hear decadence spoken of. I do not believe it. I believe that the evolution of humanity is extremely slow, and that the changes occurring in our customs from one century to another are, if carefully examined, less important than is imagined. But they are distinctly apparent to us, whereas we pass unnoticed the innumerable resemblances we share with our parents.

"The progress of the world is slow. The genius of imitation is strong in man. He invents very little. There is, in psychology as in physics, a law of gravity that attaches us to the old soil."

The Influence of Diet Upon Vision—According to news dispatches, Prof. G. L. Schneider of the University of California and chief optometrist at the University Infirmary, reports that 43 per cent of the students of the University of California are wearing glasses. The professor is further quoted as saying:

"Vision and eye movements require almost 50 per cent of the nerve energy supplied by the body. If the supply of energy is cut down by improper diet or lack of food, the eyes will suffer.

"Hot bread, overindulgence in pastry and candies and heavy foods thicken the blood to such an extent that the pressure on the minute vessels of the eye is exceedingly taxing, and causes burning, smarting, and later more serious trouble."

Physicians will remember another professor in an Eastern center who has received an immense amount of publicity, and undoubtedly a considerable supply of more material things, as a result of his campaign to induce patients to throw their glasses away and correct their twisted vision by his particular method of diet.

A Rural Health Problem—"There are at least two major reasons for the shortage of doctors in rural communities concerning which there has been recent complaint," says the Portland Oregonian, editorially. "One is the product of aversion, which is not, however, confined to any particular calling, to the implied hardships of the doctor's lot in the country. The other results from increasing specialization with its demands for elaborate paraphernalia, costly technical laboratories, hospitals and nursing. Even the mechanism of diagnosis has become vastly complex. It is no secret that the old-fashioned physician whose practice sometimes covered one or more counties is disappearing.

The migration of the medical profession to the cities is only in part due to conditions reflected in the larger movement away from the farm. There is not, as a matter of fact, a conspicuous dearth of doctors in the country as a whole. With one physician to about every 700 of the population, the United States is the best served country in this respect in the world, the allowance being almost double that of England, which comes next in statistical order. The difficulty lies in inadequate distribution, which operates in two ways unfavorably to the interests of both physician and people.

It is probably unjust to assume that the situation is the result of decline of the spirit of service. There is no ground for supposing that the old-time physician was less inclined than are his successors to choose a location, with a view to its material prospects. But service is more exacting in its technical aspects than it used to be. The physician, as said a recent commentator, needs a library which he cannot furnish, a laboratory which he cannot build and an equipment far beyond his power to provide. The microscope and the x-ray alone require experts for their manipulation. But still another need is contact with fellow-members of the profession, so rapid is the progress made by the science as distinguished from the practice of it by any single individual. Hospitals, too, are a factor, a recent survey conducted by a commission of the American Medical Association having been shown that, of the 3027 counties in the United States, 1695, or more than half, are totally without hospital facilities, while about 300 additional counties were inadequately supplied.

It is interesting to note that the effort to solve the problem by subsidizing physicians has not made appreciable headway. It was attempted last year in two communities in New York, one in New England, and another in Kansas. In one instance, an arrangement was made by which a number of heads of families subscribed given amounts to a total sufficient to make up a fair salary, with the understanding that the physician was free to take other practice. On the face of it, the provision that the subscribers were entitled to full medical service for their families had much to recommend it. It was a form of insurance the principle of which is well established. **But there were innumerable complications and conflicts of interest such as are inseparable from enforced human relationships.** Though the plan offered certain abstract advantages, it has not met the pragmatic test. The best evidence that it is not a complete solution is that the example has not been generally followed.

The automobile and good roads may accomplish something. They have already broadened the sphere of possible service from a common center. But the issue is exceedingly complex, since it does not turn on the personal attendance of the physician alone."

Interesting Comments Upon Physicians—In a recent issue (San Francisco Bulletin) a writer quotes eight unnamed San Francisco physicians as approving the statement that:

Birth control by all means! Fewer babies and better babies. Quality rather than quantity.

This is the consensus of opinion of eight prominent physicians of San Francisco, who were consulted upon the matter last week.

Many women, they agree, are totally unfit—some

mentally, some morally, some physically; some mentally, morally and physically—to bear children.

These eight men concur, and feel assured, they say, that they will be upheld by all other intelligent members of the medical profession, in declaring most emphatically that under any one or all of these conditions birth control should be practiced.

The writer goes on to say that:

"The fact is, we are all learning too much, and so fast that it is scaring the doctors to death.

"We are going to teach our daughters birth control, and in time it may cut out several of those obstetrician clinics. They won't be needed.

"It's well on the way now, and no doctor can scare it out of us. The young women are growing up with a knowledge of the hardships of big families. They want pretty clothes and good times just as well as a doctor's wife. They don't want to be always in a state of unrest trying to provide for their families."

Another Attack Upon the Medical Profession—An anonymous writer in a "weekly review" of methods of preserving health (San Francisco Bulletin) drastically criticizes the medical profession, by saying among other things:

"Members of the dope-dispensing, serum-injecting and carving school have a pleasant habit of referring to members of all other schools as 'quacks.' It is as easy—and often as unjust—to call a man a quack as it is to call a man a crank.

"Many of those referred to as quacks are better men and better physicians than those who sneer at them. There are, of course, quacks in every school, but it is a fact that many heartless 'specialists' have M. D. diplomas hanging in their offices.

"Some of the men thus made the target of medical venom and bigotry have been true friends of humanity, showing the road to health to many who had been abandoned as hopeless by the 'regulars.'"

Why I Did Not Die—Writing under this title (American Magazine, June), Mr. Harold Bell Wright tells an interesting story of a long fight against tuberculosis, from the viewpoint of an intelligent patient.

"Most sick people," says Mr. Wright, "are continually digging themselves up to see if they are growing. Give yourself a chance. Let yourself mentally alone. Go away with your thoughts, somewhere, and leave yourself behind.

"There is no rest for the one who thinks about his troubles all the time. There is no hope for the one who eats his heart out with self-pity.

"If you have nothing to think about, find something—anything—rattlesnakes, Gila monsters, birds, flowers, the stars. Oh, the world is full of interesting things. If it is not, why should you wish to stay here? If you can't find anything to think about except yourself, you ought to die, on general principles—and you probably will."

Is This Charge True?—An author, said to be a prominent chemist and pharmacologist of Philadelphia (American Mercury, June), makes one of the most damning arraignments of physicians yet published. The author uses a sort of imitative Bernard Shaw style; is plausible, and quite convincing to the casual reader.

We will be glad to mail our copy to anyone who wishes to read the article and comment upon it.

The Rise and Fall of Homeopathy—Several members have called our attention to, and invited comment upon, an article under the above title (American Mercury, June) by Doctor Morris Fishbein, associate editor of our A. M. A. Journal. The only comment we care to make is, to deplore the judgment and the taste of the writer; particularly as he holds such a prominent place in our own national organization. By that fact his published statements are quite likely to be interpreted, as they have been upon other occasions, as official statements of the A. M. A.

Why an old healed wound should be suddenly opened and reinfected without provocation is incomprehensible.

The Growth and Influence of Advertising—"We'd still be near the log cabin days of American progress, but for advertising," said Marshall N. Dana, editor of the "Oregon Daily Journal," speaking at the recent convention of the Pacific Coast Advertising Clubs.

"American invention would lack incentive and voice. We could never have accumulated a wealth of three hundred billions in this nation's short life when all the world's wealth at the time America began was one hundred billions. We never could have owned half the world's railways, three-quarters of the telephones, nine-tenths of the automobiles, and all but 2 per cent of the radio.

"Advertising is the first ally of public health. When doctors realize the resource that truth in advertising reclaimed from quackery and made available to them, they will multiply the value to humanity of their marvelous discoveries in surgery and medicine by at least engaging in advertising campaigns in the name of the profession as a whole.

Who Should Practice Medicine—In closing his series of articles (Collier's) on the subject of Diploma Mills, Mr. Brundage says:

"There are at the present time ninety-six separate and independent boards of examiners in the forty-eight states. One can readily believe that in such confusion the public interests have been largely disregarded.

"Everyone who treats human disease or injury by special method or system should have a thorough training in the fundamental medical sciences so that he may know not only when to use the particular method in which he is specializing, but also when that method should not be used. The wrong use of the remedial agent in the treatment of a patient may be more disastrous than if such treatment is not used. The omission of the right treatment may, indeed, have serious results; a wrong treatment may result in the death of the patient.

"Before any person can assume to care for the sick or injured, he should be forced by law to:

"Complete a high school course of four years.

"Take a two-year course in a college of liberal arts, specializing in chemistry, physics, and biology.

"Finish a four-year course at a medical college.

"Serve as an interne in a hospital for one year.

"One educational standard should be established for all who practice the healing art, regardless of the treatment advocated. Require everyone who wishes to practice to prove that he possesses the proper education and training, and then grant him a license as a physician and let him use any method which his common sense may indicate."

Another Criticism of Doctors—"The worst of it is that in this godless age a wicked scientist may always be found to defend the normal instincts," says Gregory Mason, American Mercury, June. "Here, for example, is a medico named B. S. Talmey. Writing in American Medicine of the sex problems of nubiles, he says:

"'In the interest of hygiene . . . the enthusiasm for dancing ought to be encouraged and fostered as an outlet for sexual tension. . . . The only safety valve for the repressed emotions is either auto-eroticism, promiscuity or the dance, and the latter is the least harmful of the three.'

"But let us quote no more of such satanic stuff!"

California Medical Association

HARRY E. ALDERSON, M. D.
VICE-PRESIDENT

ABSTRACTS FROM THE MINUTES OF THE COUNCIL, FIFTY-THIRD ANNUAL SESSION, CALIFORNIA MEDICAL ASSOCIATION.

One Hundred and Forty-third Meeting — Held in Room 323 of the Los Angeles Biltmore, Los Angeles, Calif., Sunday, May 11, 1924, at 8 p. m.

Present—Doctors Edwards, MacGowan, Carrington, Parkinson, Kiger, Ewer, Bine, Kress, McArthur, Curtiss, Emma W. Pope, and General Counsel Peart.

Absent—Doctors Strietmann, De Lappe, Beattie, Coffey, McLeod, Hamlin, and Saxton T. Pope. (Stover, deceased.)

Minutes of the 142d Meeting—On motion of Ewer, seconded by Kress, the reading of the minutes of the 142nd meeting was dispensed with, and the minutes were approved as mailed to the councilors.

Minutes of the Executive Committee—On motion of McArthur, seconded by Kiger, the reading of the minutes of the 71st, 72d, and 73d meetings of the Executive Committee was dispensed with, and the minutes were approved as mailed to the councilors.

Committee on Post-graduate Instruction for Physicians in General Practice—The secretary read the final report of the Committee on Post-graduate Instruction for Physicians in General Practice as submitted by the chairman, Edwin I. Bartlett, on March 8, 1924.

On motion of Bine, seconded by Carrington, it was

Resolved, That the final report of the Committee on Post-graduate Instruction for Physicians in General Practice be received; and that the committee be discharged with thanks.

Social Health Insurance—The secretary read the report of the Committee on Social Health Insurance as submitted by the chairman, Walter C. Alvarez, on April 26, 1924.

Action by the Council—On motion of Bine, seconded by Kress, it was

Resolved, That the report of the Committee on Social Health Insurance be received and placed on file; and further that the committee be discharged with thanks.

Time and Place of the 1925 Meeting—The secretary presented an invitation from the San Diego County Medical Society to hold the 1926 meeting in the city of San Diego, which was received and ordered placed on file for consideration at the 1925 meeting.

Invitations were then presented for the 1925 meeting from the San Francisco Convention and Tourist League, The Arlington Hotel, Inc., Santa Barbara, the Santa Cruz Chamber of Commerce, and the Yosemite National Park Company.

Action by the Council—On motion of Bine, seconded by McArthur, it was

Resolved, That the invitation of the Yosemite National Park Company to hold the 1925 meeting of the California Medical Association in Yosemite National Park be accepted; and that all details in connection therewith be referred to the Executive Committee; and, further, that the time of the meeting be referred to the Executive Committee with the recommendation that particular consideration be given the date of the 1925 meeting of the A. M. A. when setting the date for our meeting.

Keene Memorial Committee — Report from the Committee on the Keene Memorial as submitted by the chairman, W. A. Reckers, on March 23, 1924, was presented and considered.

Action by the Council—On motion of Bine, seconded by McArthur, it was

Resolved, That the report of the Committee on the Keene Memorial, involving a total expenditure of $250 for the restoration of Doctor Keene's grave and the erection of a new tombstone, be approved; and that the committee be continued to carry out such work.

Gorgas Memorial—The secretary submitted a letter and resolution received from Franklin Martin, chairman of the board of directors of the Gorgas Memorial, which was fully discussed.

Action by the Council—On motion of MacGowan, seconded by Edwards, the Chair was instructed to appoint a committee of three to go into the matter more fully and report back to the Council at its next meeting.

The Chair appointed, as members of this committee, Doctors Edwards, MacGowan, and Bine.

Model Constitution and By-Laws for County Societies—The general counsel reported on the constitution and by-laws just adopted by the San Francisco County Medical Society, and stated that it might well serve as a model constitution for all county societies.

Action by the Council—On motion of Kress, seconded by McArthur, it was

Resolved, That the secretary be instructed to obtain, by gift or purchase, from the San Francisco County Medical Society copies of their new constitution and by-laws; and that a copy thereof be sent to the secretary of each county society with whatever suggestions the secretary sees fit; and, further, that the matter be given publicity in California and Western Medicine.

Professional License Tax—A progress report was made by the chairman of the Committee on Professional License Tax, Rene Bine, in which he stated that nothing could be done by the association at this time. It was the sense of the Council that the committee be continued.

Bulpit vs. Fullerton—The Council was advised that the city of Fullerton had dropped the matter of

Doctor Bulpit's practicing within the city limits without a city license.

No action was taken.

Tax Imposed by the Los Angeles County Medical Association—Letter from the secretary of the A. M. A., outlining the attitude of many Long Beach and San Pedro members, as well as non-members, toward the tax imposed by the Los Angeles County Medical Association, was considered. The Los Angeles councilors advised that there has never been a time in the history of the association when so many new members have joined, and so few old members have resigned.

Action by the Council—After discussion, on motion of Edwards, seconded by Bine, it was

Resolved, That the secretary be instructed to advise the secretary of the A. M. A. that the state records show that the Los Angeles County Medical Association is growing more rapidly than ever before, and that there are fewer delinquents and fewer resignations; and, further, that no action be taken.

Councilor Visits—The following reports were made by the councilors on their visits to the various county societies in their districts:

Kress—Being a councilor-at-large, I have no report to make.

Carrington—First District. I visited every county society in my district except Orange, which society could not arrange a meeting prior to May 6. We had a joint meeting with San Bernardino and Riverside. We had very good meetings wherever I visited, and the members expressed themselves as remarkably well pleased that the Council had thought to do this. I think it is a good thing to continue, as it brings members of the county units into closer connection with the Council of the state association, and they appreciate it.

McArthur, Councilor-at-large—No report to make.

Ewer—Seventh District. I visited the Contra Costa County Medical Society, where he had a very fine meeting. I will try to visit more in the future, as I think it is a very good thing.

Kiger—Second District. As president of the Los Angeles County Medical Association, I meet with them twice a month. Last year the Ventura County Medical Society almost died, but I met with them at Ventura, Oxnard, and Santa Paula, and we reorganized the society and elected new officers. I agreed to furnish them with speakers for their meetings, which has been done, and they are all right now. Met twice with Santa Barbara, but have never been over to Kern County.

Parkinson—Eighth District. Several of the counties in my district—Amador, El Dorado, Alpine, Nevada, Sierra, Mono, Inyo, Colusa, and Modoc—have no societies, and cannot support them. Sacramento includes men from Amador, El Dorado, and some from Placer.

In conjunction with the president, I met with Yolo, asking them to invite members from Glenn, and we had quite a large attendance. We discussed industrial medicine, legal defense, and other topics of general interest. Believe it is a mistake to talk with the members in the city instead of the country. Had a banquet at 6, and an excellent meeting afterward. These same subjects were also presented; more particularly malpractice defense, and a great deal of interest was aroused.

Associate Membership—The secretary requested a definite ruling as to who is eligible to associate membership in the state association, and what dues should be charged for such membership. Doctor Bine then reported on the action taken by the San Francisco County Medical Society, in refusing to admit dentists to their society as associate members, and which action had been endorsed by the Executive Committee of the state association.

Action by the Council—On motion of Kress, seconded by Carrington, it was

Resolved, That, in accordance with Section 2, Article III of the Constitution and By-laws of the California Medical Association, educated doctors holding positions on the teaching staffs of accredited universities are eligible to associate membership; and that the dues for such membership be fixed at $5 per annum until otherwise ordered; and, further, that such dues shall include a subscription to the Journal; and, further, that no rebate is allowable under such dues.

Application of Clelia D. Mosher for Associate Membership—The application of Clelia D. Mosher, Assistant Professor of Personal Hygiene, Stanford University, was presented; and, on motion of Bine, seconded by Kress, the following resolution was unanimously adopted:

Whereas, under the existing Constitution and By-laws of the California Medical Association, Section 2, Article III, Doctor Clelia D. Mosher is eligible to associate membership; be it, therefore,

Resolved, That Doctor Clelia D. Mosher be elected to associate membership in the California Medical Association; and that she be so notified by the secretary.

Status of Chairman of Section on Pathology—The Council was advised that the chairman of the Section on Pathology, Glanville Y. Rusk of San Francisco, was not a member of the association, as he is a Professor of Pathology at the University of California, and, therefore, not a licensed physician.

Action by the Council—On motion of Bine, seconded by Ewer, the following resolution was unanimously adopted:

Whereas, Doctor Glanville Y. Rusk, Professor of Pathology at the University of California, and chairman of the State Section on Pathology and Bacteriology, is not a member of the California Medical Association; and

Whereas, Section 2, Article III, of the Constitution of the California Medical Association was designed to cover doctors holding such positions; therefore, be it

Resolved, That Doctor Glanville Y. Rusk be invited to join the California Medical Association as an associate member.

Affiliate Membership—The secretary requested a ruling as to what requirements are necessary for affiliate membership, and then presented the name of Doctor G. C. Simmons of Inverness, who had been an active member in good standing for many years, and who had this year remitted dues of $1 as an affiliate member through the Sacramento County Medical Society.

Action by the Council—On motion of Kress, seconded by Kiger, it was

Resolved, That all applications for affiliate membership should be submitted to the Council only when they are presented through the local county society, together with a statement from the secretary of such society, explaining the reasons for such special consideration; and, further, that the application of Doctor G. C. Simmons of Inverness be laid on the table until the proper report had been made by the secretary of the Sacramento County Medical Society.

Delinquency in the State Association—The question of delinquency in the state association was brought up and fully discussed. It was the sense of the Council that the state association should be governed by instructions or ruling of county societies, in the matter of delinquency and reinstatement, but that each member should receive an official notification of his delinquency from the state association.

Delegates to State Association—The secretary requested an interpretation of Section 4, Article III, of the new constitution, in view of the fact that a duly elected alternate to the state association was delinquent for his 1923 state dues, and had just recently paid his 1924 dues. After discussion, it was the sense of the Council that a delegate or alternate to the California Medical Association must be a member in good standing but one year prior to his election;

and, further, that any member not in good financial standing at the time of his election to such office by his county society is not a member of the state association and, therefore, is not eligible to such office.

Annual Assessment for 1925—After thorough discussion, on motion of MacGowan, seconded by Bine, it was

Resolved, That the annual assessment for the year 1925 be fixed at $10.

Report of the Council—The chairman submitted the annual report of the Council for discussion and approval before presentation to the House of Delegates. It was the sense of the Council that the Chair act in conjunction with Doctors Bine and Kress and the general counsel as an informal committee to go over the report more carefully; and, further, that the report as revised be approved.

Display of "Better Health"—On motion of McArthur, seconded by Bine, it was

Resolved, That the League for the Conservation of Public Health be invited to display "Better Health" at the registration desk as "Hygeia" is now being displayed.

Adjournment—There being no further business, the meeting adjourned to meet in the same place tomorrow afternoon at 2 p. m.

One Hundred and Forty-fourth Meeting—Held in Room 323 of the Los Angeles Biltmore, Los Angeles, Calif., Monday, May 12, 1924, at 2 p. m.

Present—Doctors Edwards, MacGowan, Parkinson, Carrington, Kiger, Ewer, Bine, Kress, McArthur, Saxton T. Pope, Curtiss, Musgrave, Emma W. Pope, and General Counsel Peart. Doctor P. T. Phillips, president, and Walter V. Brem, member representing the Board of Medical Examiners, were also present.

Absent—Doctors Strietmann, De Lappe, Beattie, Coffey, McLeod, Hamlin. (Stover, deceased.)

Repeal of License Tax—Doctor P. T. Phillips, president of the Board of Medical Examiners, submitted a report prepared by Doctor Pinkham, secretary of the board, who was unable to be present, on the desirability of continuing the $2 license tax. As a matter of information for the Council, he stated that they had found this the best and only means of keeping up-to-date records of licentiates in the state, and that it was of great assistance to them in investigating and prosecuting unlicensed practitioners. He also stated that, under the existing law, they must publish a directory of all persons holding unrevoked licenses in the state, which includes (1) physicians and surgeons; (2) drugless practitioners, including naturopaths; (3) chiropodists; (4) midwives.

After a general discussion, Doctor Phillips stated that the board would be glad to publish an individual directory of physicians and surgeons only if the proper legislation or ruling could be effected which would allow them to do so. It was the sense of the Council that such a directory was desirable.

Increase in Size of Journal—The editor advised the Council that California and Western Medicine is now one of the great medical journals of the country, and is carrying a larger proportion of advertising matter than the law governing second-class mailing privileges allows. He recommended that the temporary increase in size be made permanent, and the Executive Committee given authority to add an additional folio whenever it became necessary. He also stated that the postal laws now require that at least 50 per cent of the subscription price be charged against membership dues, and that it would now be necessary for the association to take such action.

Action by the Council—On motion of Bine, seconded by Edwards, it was

Resolved, That the temporary increase in the size of California and Western Medicine be made permanent; and that the Executive Committee be authorized to further increase the Journal by an additional sixteen-page folio whenever it deems such action necessary.

Appropriation for Journal Illustrations—The editor stated that the Journal was allowed to contribute but $5 toward the illustration of any article, that some good papers had been lost to the Journal for that reason. He recommended that, in the future, the matter of illustrations be left to the judgment of the editor, with the approval of the Executive Committee.

Action by the Council—On motion of McArthur, seconded by Edwards, it was

Resolved, That the matter of number and expense of illustrations for articles in California and Western Medicine be left to the judgment of the editor; and, further, that the question of appropriations for such illustrations be submitted to the Executive Committee for approval when such action is deemed necessary.

Directory of Membership—The editor recommended that a directory. listing members of the California Medical Association alphabetically by counties with such specialties and other data as might be considered valuable or as members desired, be published for public information. After discussion, it was the sense of the Council that the matter be referred to the secretary and the Executive Committee for investigation and consideration.

Legislation Questions—After discussion, on motion of MacGowan, seconded by Edwards, it was

Resolved, That the Council of the California Medical Association request the League for the Conservation of Public Health to (a) reintroduce and promote the Medical College Bill No. 476; (b) reintroduce and promote the Doctors' Title Protection Bill; (3) introduce and promote legislation repealing the $2 license tax; (d) introduce model narcotic law; (e) secure, if possible, reduction of tax under Harrison Narcotic Law; and (f) secure, if possible, allowance as deductible expense under income tax law of expense of attendance at medical society meetings and post-graduate courses.

Mellon Tax Bill—On motion of Bine, seconded by MacGowan, it was unanimously

Resolved, That the California Medical Association, believing in the justice and equity of the imposition of income tax at lower rates upon earned income as compared with unearned income, hereby memorializes the Senators and Representatives of California in Congress to support such a provision in the income tax bill pending; and be it further

Resolved, That a copy of this resolution be transmitted to Senators and Representatives of the State of California forthwith.

Bunnell Memorial—The chairman of the committee on the Bunnell Memorial not being present, Saxton T. Pope submitted the report of that committee, and a photo of the proposed plaque.

Action by the Council—On motion of Bine, seconded by McArthur, it was

Resolved, That the progress report from the committee on the Bunnell Memorial be accepted; that the plaque be approved; that the committee be instructed to take the necessary steps to effect the dedication of this memorial to Doctor Bunnell in Yosemite; and, further, that the matter of the $100 advanced by the committee for preliminary expenses be referred to the Executive Committee.

Gorgas Memorial—Doctor Bine, a member of the special committee appointed by the Chair at last night's meeting, stated that the committee had gone over the matter very thoroughly and could see no objection to it. The question was then fully discussed by all present. No action was taken.

Discontinuance of Anatomy Section—Letter from the secretary of the Anatomy Section, C. Latimer Callender, requesting the discontinuance of his section, as there was not enough interest in the subject to warrant its existence, was considered.

Action by the Council—On motion of Bine, seconded by Ewer, it was

Resolved, That the Section on Anatomy of the

California Medical Association be discontinued, in accordance with the request of the secretary of that section.

Convention Expenses Re: Income Tax—The president-elect reported that he had written to the legislators from Southern California and both California Senators regarding a deduction by physicians of convention expenses from their income tax returns. He then presented a reply received from Congressman Fredericks, and suggested that a special committee be appointed to draft a reply to Congressman Fredericks' letter.

The following action was taken by the Council:

(a) On motion of Kress, seconded by Bine, it was

Resolved, That a special committee consisting of the Chair, the general counsel, and the editor be appointed to meet the committee on professional license taxes, and draft a letter for transmittal to Congressman Fredericks by Doctor MacGowan in his official capacity.

(b) On motion of Kress, seconded by McArthur, it was

Resolved, That the general counsel be requested to draw up a resolution expressing the viewpoint of the Council on this subject, and report at a subsequent meeting of this session.

Delegates to A. M. A.—The status of delegates and alternates to the A. M. A. continued in office at the 1923 meeting was brought up, in view of queries from various members of the association and considered.

Action by the Council—On motion of Kress, seconded by Carrington, it was

Resolved, That the emergency appointment at the last annual session continuing in office delegates and alternates to the A. M. A., whose term expired in 1923, be construed as an appointment for the year 1923 only, and that the recording of the year 1925 as the expiration of their term was a typographical error; and, further, that the House of Delegates elect four delegates and four alternates to the A. M. A. at this session; two delegates and corresponding alternates for a two-year term, and two delegates and corresponding alternates for a one-year term.

Report of the Editor—The Chair advised the Council that the editor would be unable to present his report before the House of Delegates tonight, and there being no objection, requested Doctor Bine to present the report for the editor.

Adjournment—There being no further business, the meeting adjourned to meet at the same time and place tomorrow afternoon.

One Hundred and Forty-fifth Meeting—Held in Room 323 of the Los Angeles Biltmore, Los Angeles, Tuesday, May 13, 1924, at 2 p. m.

Present — Doctors Edwards, MacGowan, Parkinson, Carrington, Kiger, Ewer, Bine, McArthur, Curtiss, Emma W. Pope, and General Counsel Peart.

Absent — Doctors Strietmann, De Lappe, Beattie, Coffey, McLeod, Hamlin, Kress, and Saxton T. Pope. (Stover, deceased).

Absence of Doctor De Lappe — The secretary reported that the councilor from the Fourth District, Fred R. De Lappe of Modesto, was unable to be present because of the serious illness of his father. It was the sense of the Council that the secretary be instructed to write Doctor De Lappe, expressing their sympathy in the illness of his father, and regret at his inability to attend the annual session.

Death of Councilor From Third District — The president, T. C. Edwards of Salinas, was appointed a committee of one to draft a resolution on the death of the councilor from the Third District, William M. Stover of San Luis Obispo, and instructed to submit such resolution at the next meeting of the Council.

Industrial Medicine—Reports from Industrial Medicine and Surgery Sections of various county societies, and other replies to the questionnaire sent out by the state office were presented.

Action by the Council—On motion of Bine, seconded by McArthur, it was

Resolved, That all reports and replies to questionnaire sent out by the state office and all other matters pertaining thereto be referred to the Executive Committee.

Permanent Quarters—The question of the state association securing permanent quarters for the annual meetings as raised in letter received from Harlan Shoemaker, secretary of the Los Angeles County Medical Association, was considered.

Action by the Council—On motion of McArthur, seconded by Bine, it was

Resolved, That, in accordance with suggestion of Harlan Shoemaker of Los Angeles, the Chair be authorized to appoint a committee of five to investigate the feasibility of the California Medical Association securing permanent quarters for annual meetings; and that the committee be instructed to report back to the Council.

Council Meeting on May 14—Question of changing the hour of the Council meeting on May 14 so that the councilors might go on the automobile trip scheduled for that afternoon was brought up by the secretary.

Action by the Council—On motion of Edwards, seconded by Bine, it was

Resolved, That, when the Council adjourns today, it adjourn to meet promptly at 9 tomorrow morning; and, further, that all absent members be notified of the change in hour of the meeting on May 14.

Editorials for June Journal—The editor submitted an editorial for the June Journal, entitled "That Muck-Raking 'Survey' of the Health Agencies of San Francisco" for approval. He also requested permission to prepare a series of editorials to be published in monthly installments in both California and Western Medicine and Better Health, answering Doctor Haven Emerson's survey, and to issue such editorials in permanent form when completed.

Action by the Council—On motion of McArthur, seconded by MacGowan, it was

Resolved, That the editorial, entitled "That Muck-Raking 'Survey' of the Health Agencies of San Francisco," as submitted by the editor, be approved for publication in the June Journal; and, further, that the editor be authorized to prepare a series of editorials along the lines suggested by him; and, further, that such editorials be submitted to the Executive Committee before publication in California and Western Medicine and Better Health.

Legislative Conference of State Associations — Letter was read from the executive secretary of the Bureau of Legal Medicine and Legislation of the A. M. A., requesting the California Medical Association to have delegates present at a legislative conference of state medical associations to be held during the A. M. A. convention in June.

Action by the Council—On motion of MacGowan, seconded by Carrington, it was

Resolved, That the president of the California Medical Association, T. C. Edwards of Salinas, be appointed a delegate to the legislative conference of state medical associations under the auspices of the Bureau of Legal Medicine and Legislation of the American Medical Association to be held in Chicago, Wednesday, June 11, 1924; and, further, that he confer with the general counsel so that he may present at the conference such matters as he may deem best for the general interests of the profession.

President's Address — Doctor Carrington advised the Council that many members had spoken very highly of the president's address to him, and suggested that it be broadcasted.

Action by the Council—On motion of Bine, seconded by Kiger, it was unanimously

Resolved, That the Council of the California Medical Association approves and authorizes, with the president's consent, that his address be broadcasted as soon as possible; and, further, that the matter be referred to C. J. Sullivan for action.

Adjournment—There being no further business, the meeting adjourned to meet in the same room at 9 tomorrow morning.

One Hundred and Forty-Sixth Meeting—Held in room 323 of the Los Angeles Biltmore, Los Angeles, Wednesday, May 14, 1924, at 9 a. m.

Present—Doctors Edwards, Parkinson, Carrington, Ewer, Bine, Kress, McArthur, Kiger, Emma W. Pope, and General Counsel Peart.

Absent — Doctors MacGowan, Strietmann, De Lappe, Beattie, Coffey, McLeod, Hamlin, Saxton T. Pope, and Curtiss. (Stover, deceased.)

Illness of Doctor Hamlin—Doctor Ewer reported that Councilor O. D. Hamlin of Oakland had been seriously ill for some time and was, therefore, unable to attend the annual session. It was the sense of the Council that a letter be sent Doctor Hamlin, expressing the sympathy of the Council in his present illness, and regret at his inability to attend the annual session.

Industrial Medicine.— The Council considered the question of industrial medicine practice as now carried on in this state, and discussed the advisability of appointing a statewide committee to go into the matter more thoroughly.

Action by the Council—On motion of Bine, seconded by Kress, it was

Resolved, That a statewide committee of fifteen be appointed by the Chair to investigate the practice of industrial medicine from all angles—five from the city of Los Angeles, five from the city of San Francisco, and five from the state at large; that each section of five have a vice-chairman; and that a general chairman be appointed from the three vice-chairmen; and, further, that the committee report its recommendations to the Executive Committee and the Council on definite dates.

Absence of Doctor Beattie—The secretary read a letter from the Councilor of the Fifth District, David A. Beattie of San Jose, advising that he did not believe he would be able to attend the annual session because of his recent illness. It was the sense of the Council that the secretary convey to Doctor Beattie the sympathy of the Council in his recent illness, and regret his inability to attend the annual session.

Investigation of Veterans' Bureau—A letter from the Vanderbilt Newspapers, Inc., of Los Angeles was read regarding the medical attaches of the Twelfth District, U. S. Veterans' Bureau, and their investigation into the activities of such bureau.

Action by the Council—On motion of Kress, seconded by McArthur, it was

Resolved, That the matter be referred to the State Board of Medical Examiners for attention, and that the Vanderbilt Newspapers, Inc., be so informed; and, further, that an expression of appreciation be conveyed to them for the splendid publicity given the convention by their publication.

Foot and Mouth Disease—In accordance with the request of Walter V. Brem of Los Angeles, report of the committee appointed by the Los Angeles County Medical Society to investigate the hoof and mouth disease was fully considered. The Council was advised that this report had already been published in the "Better Health Service" of the San Francisco Examiner.

Action by the Council—On motion of Kiger, seconded by Bine, it was

Resolved, That the Council of the California Medical Association approves and endorses the report of the committee appointed by the Los Angeles County Medical Association to investigate the hoof and mouth diseases.

Applicaion of G. C. Simmons for Affiliate Membership — The secretary advised the Council that Doctor George J. Hall, secretary of the Sacramento County Medical Society, had informed her that Doctor G. C. Simmons of Inverness was no longer in active practice, and that his county society felt that he was entitled to affiliate membership in the county and state associations.

Action by the Council—On motion of Bine, seconded by McArthur, it was unanimously

Resolved, That the application of Doctor G. C. Simmons of Inverness, as presented by the secretary of the Sacramento County Medical Society, be approved; and that Doctor Simmons be elected to affiliate membership in the California Medical Association.

Application of Glanville Y. Rusk for Associate Membership — Doctor Bine stated that he had extended the invitation of the Council to join the California Medical Association as an associate member to Glanville Y. Rusk of San Francisco, and that Doctor Rusk had requested him to present his application for such membership at once.

Action by the Council—On motion of McArthur, seconded by Kiger, it was unanimously

Resolved, That the application of Glanville Y. Rusk of San Francisco, Professor of Pathology of the University of California, be approved; and that Doctor Rusk be elected to associate membership in the California Medical Association.

Adjournment — There being no further business, the meeting adjourned, to meet in the same place at 2 p. m. tomorrow.

One Hundred and Firty-seventh Meeting—Held in Room 323 of the Los Angeles Biltmore, Los Angeles, Thursday, May 15, 1924. at 2 p. m.

Present — Doctors MacGowan, Ewer, Parkinson, Kiger, Kress, McArthur, Curtiss, Kinney, Edwards, Pope, and General Counsel Peart. Retiring Councilor Carrington and Walter C. Brem of Los Angeles were also present.

Absent — Doctors Alderson, De Lappe, Beattie, Coffey, McLeod, Hamlin, Bine, and Norton R. Gibbons.

Reorganization of the Council—On motion of McArthur, seconded by Kiger, James H. Parkinson of Sacramento was unanimously re-elected chairman of the Council for the ensuing year.

Appointment of Councilor for Third District—On motion of Kiger, seconded by Kress, T. C. Edwards of Salinas was appointed to fill the unexpired term in the Third District caused by the death of William M. Stover of San Luis Obispo.

Appointment of Councilor for Seventh District—On motion of Kress, seconded by Ewer. Dudley Smith of Oakland was appointed to fill the unexpired term in the Seventh District caused by virtue of the election of Edward N. Ewer as president-elect of the California Medical Association.

Presentation of New Councilors—Paul M. Carrington of San Diego presented Doctors Lyell C. Kinney of San Diego and T. C. Edwards of Salinas to the Council as the newly elected councilors from the First and Third Districts, respectively.

Ethical Standing of Physicians Employed by Lay Organizations—Walter V. Brem of Los Angeles presented a letter outlining the intent of resolution presented by him to the House of Delegates on "ethical standing of physicians employed by lay organizations practicing medicine for profit." The matter was then informally discussed by all present.

Action by the Council—On motion of Kress, seconded by Kiger, it was unanimously

Resolved, That the matter be referred to a committee consisting of the chairman, editor, secretary, general counsel and Doctor Brem for further investigation and consideration; and that the committee report back to the Council.

Appointment of Secretary—On motion of Kress, seconded by McArthur, it was unanimously

Resolved, That Emma W. Pope of San Francisco be appointed to succeed herself as secretary for the ensuing year at a salary of $300 a month, effective May 20, 1924.

Appointment of Editor—On motion of Edwards, seconded by McArthur, William E. Musgrave of San Francisco was unanimously appointed to succeed himself as editor of California and Western Medicine for the ensuing year at a salary of $1 per annum.

Expression of Appreciation to Editor—On motion of Kress, a rising vote of thanks was unanimously given the editor for his valuable services during the last year. The chairman then expressed the appreciation of the Council of the manner in which Doctor Musgrave had improved the Journal during the past year, to which the editor replied.

Appointment of Auditing Committee—The Chair announced that he had appointed as members of the Auditing Committee, Rene Bine and Morton R. Gibbons, both of San Francisco.

Appointment of Committee on Arrangements for 1925—The matter of the appointment of the Committee on Arrangements for the 1925 meeting was brought up, and the president requested further time before making any appointments. Letter from the Yosemite National Park Company was then read, and contents thereof fully discussed.

Action by the Council—On motion of Kress, seconded by Kiger, it was

Resolved, That the president be given further time before appointing the Committee on Arrangements for the 1925 meeting; and, further, that the matters outlined in the invitation from the Yosemite National Park Company be referred to the Executive Committee with power to act.

Delegates to A. M. A.—The question of instructing delegates to the A. M. A. was raised and discussed. No action was taken.

Permanent Convention Headquarters—The Chair announced that Harlan Shoemaker, Los Angeles, chairman; George Kress, Los Angeles; Morton R. Gibbons, San Francisco; William Ellery Briggs, Sacramento; and T. C. Edwards, Salinas, had been appointed members of the Committee on Permanent Convention Headquarters.

Industrial Medicine—The question of appointment of the special committee of fifteen to investigate and consider all angles of industrial accident work was discussed, and the chairman requested further time before making appointments to this committee.

Wire from Homeopathic Society—The secretary read a wire from the Homeopathic Society, congratulating the California Medical Association on its successful meeting.

Action by the Council—On motion of Kress, seconded by MacGowan, it was

Resolved, That the secretary be instructed to send a wire to the Homeopathic Society, acknowledging receipt of their telegram and congratulating them on the success of their annual convention.

Wire from Doctor U. G. Houck—The secretary read a wire from Doctor U. G. Houck, in which he stated that he would be unable to attend the meeting because of recent outbreaks of the hoof and mouth disease, but that Doctor Bennett would represent him. It was the sense of the Council that the secretary be instructed to acknowledge receipt of the wire from Doctor U. G. Houck, and to convey to him the regret of the Council at his inability to attend the convention.

Yosemite Reservations—After discussion, it was the sense of the Council that the secretary be instructed to reserve a group of cottages for the councilors at Yosemite Lodge for the 1925 meeting.

Death of Councilor from Third District—T. C. Edwards of Salinas presented the following resolution, which he had prepared in accordance with instructions received at the 145th meeting of the Council:

"Whereas, It was decreed, by the inscrutable Providence of Almighty God, that Doctor William M. Stover be removed from earth at a time when it seemed that he was just reaching the full fruition of a life of useful service; therefore, be it

"Resolved, That, in the passing of Doctor Stover, the profession has lost a real doctor of medicine; the Council a wise and active member; the community in which he lived an energetic and upright citizen; and his family has been bereft of an indulgent and loving husband and father, whose ministrations were always cheerful, kind, and sympathetic."

Action by the Council—On motion of Ewer, seconded by Kiger, the resolution as submitted by Doctor Edwards was unanimously adopted by the Council, and the secretary requested to forward a copy of such resolution to the family of Doctor Stover.

Editorial, "A Pathetic Spectacle"—The editor submitted an editorial entitled "A Pathetic Spectacle," which outlines the situation existing at the Murphy Memorial Hospital in Whittier, whereby cultists are allowed staff privileges in that hospital by public initiative. The editorial was fully discussed, particularly with reference to the standing of nurses, who might receive their training at a nursing school operated by this hospital.

Action by the Council—On motion of McArthur, seconded by Kress, it was

Resolved, That the editor be requested to call attention to the fact in this editorial that nurses graduated from any school of nursing maintained in the Murphy Memorial Hospital at Whittier would not be recognized by an accredited hospital in the state of California; and, further, that the editorial as amended be heartily endorsed by the Council.

Income Tax Deductions—In accordance with instructions received at the 144th meeting, the general counsel submitted a resolution prepared by him, outlining the views of the Council on the matter of deduction of convention expenses by physicians from their income tax returns.

Action by the Council—On motion of Bine, seconded by McArthur, the following resolution as submitted by the general counsel was unanimously adopted:

"Whereas, The Commissioner of Internal Revenue of the United States has ruled that the expenses incurred by members of the medical profession in attending medical conventions are not deductible, in computing net income, upon the ground that such expenses are but remotely connected with the practice of the profession of medicine, and are not such ordinary and necessary expenses incurred in the practice of the medical profession as constitute an allowable deduction as a business expense; and

"Whereas, The Council of the California Medical Association has carefully considered the said ruling and the reasons given therefor, and firmly believes that the Honorable Commissioner of Internal Revenue is not fully apprised of the facts; and

"Whereas, In truth and in fact medicine cannot be safely and scientifically practiced by any doctor thereof unless such doctor continuously follows and understands medical progress through attendance upon medical conventions; and

"Whereas, Medical conventions as conducted by the California Medical Association and the various county units thereof are, in fact, post-graduate courses in investigation and study, and are attended by members of the profession for the purpose of enabling doctors of medicine to properly practice their profession and, without such attendance upon such conventions and pursuit of the study and investigation thereby afforded, members of the profession cannot properly and adequately practice their profession; and

"Whereas, Attendance by a doctor of medicine upon such conventions is absolutely necessary in order to avoid what may well be termed a serious depreciation in his intellectual equipment necessary to him in the pursuit of his profession, and the expenses of attending such convention should be considered as a maintenance charge for the proper up-

keep of his professional and intellectual equipment; and

"Whereas, In truth and in fact the expenses incurred by a doctor of medicine in attending medical conventions of the regular associations to which he belongs are ordinary and necessary expenses incurred in the pursuit of his profession, and such expenses are directly and proximately connected with the practice of the profession, and in no sense personal; now, therefore, be it

Resolved, That the Council of the California Medical Association, representing approximately 4000 doctors of medicine practicing the profession of medicine in the state of California in regular session assembled in Los Angeles, Calif., this 15th day of May, 1924, hereby respectfully protest against said ruling of the Honorable Commissioner of Internal Revenue; and hereby directs its president, Doctor Granville MacGowan, and its officers to present a certified copy of this resolution to the commissioner with such further proofs and showing as shall be deemed suitable and proper to lay all the facts of the matter before the Revenue Department of the United States, and to secure a reversal of said ruling.

Fall Meeting of the Council—After discussion, it was the sense of the Council that the matter of fixing the time and place of the the fall meeting be referred to the Chair, with power to act.

Industrial Medicine—The question of holding an open meeting of the next Council meeting and the desirability of inviting those interested in industrial medicine or any other group to meet with the Council and discuss their various problems was fully considered.

Action by the Council—On motion of Kress, seconded by McArthur, it was

Resolved, That the Council hold an open meeting on the evening of its next regular meeting; and that any group or groups of men interested in any particular problem be invited to attend this meeting and discuss their problems with the Council.

Adjournment—There being no further business, the meeting adjourned, to meet in either the North or the South at the call of the Chair some time in the fall,

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REPORT OF THE EDITOR, CALIFORNIA AND WESTERN MEDICINE

Based upon proper authority and instruction, the name of the California State Journal of Medicine was changed in March, 1924, to California and Western Medicine. This change has elicited many commendations from California, Nevada, and Utah, and other readers, as well as from advertisers and far-distant subscribers. One member criticized the change.

California and Western Medicine now has a bona fide circulation of nearly 5000. This places it among the leading medical journals, in point of circulation.

It is owned and published by the California Medical Association, and is the official publication of the California Medical Association, the Nevada Medical Association, and the Utah Medical Association.

The size has again been increased, and each issue now consists of 132 pages, including covers. It ought to be still further increased by one folio of 16 pages, which would make it the exact size of the Journal of the A. M. A. Although the House of Delegates is already upon record authorizing the council to further develop our publication, it is recommended that they again be asked to endorse the policy.

The extent to which California and Western Medicine is a financial asset or liability to the association depends upon what basis costs and income are figured. Figured the way the Journal of the A. M. A. is figured, or in the way practically all other magazines are figured, it is an important financial asset. Inasmuch as the magazine is completely the property of the California Medical Association, as it should be, the method of accounting is of no particular importance, were it not for the federal laws and postoffice rulings. This law and the rulings which have the full effect of law require that an amount equal to at least 50 per cent of our published subscription price be definitely collected from members and adequately accounted for on our books and reports as subscriptions to the magazine. They also require that this be provided for by proper authority of our organization. This means an appropriate resolution by the House of Delegates. In other words, until our subscribers are bona fide subscribers and the journal is not given away, we are not entitled to second-class mailing privileges. We are informed by the postoffice people that until this is done we are violating the law, and as the editor not only has to swear to the accuracy of our statements periodically, but, in addition, they are likely to be checked up at irregular intervals, it is recommended that an enabling resolution be passed, somewhat as follows:

"Resolved, That two dollars ($2.00) of the annual dues of each member of the California Medical Association be, and are, collected and accounted for specifically as subscription to California and Western Medicine, the official organ of the California Medical Association; and that each member of the organization agree thereto.

"Resolved Further, That the officers of the association are instructed to carry out this resolution in letter and in spirit."

After all, the real value of the publication to our organization and to the cause of better medicine is not measurable in dollars and cents, but in influence and in the fidelity with which it may be our mouthpiece.

Several new features have been introduced during the year:

DISCUSSIONS OF ORIGINAL PAPERS

The policy of sending manuscripts to various members for discussion has proved very popular. It is the only innovation that, during a quarter of a century of experience in medical organization, I have ever known to meet with universal approval. Hundreds of commendatory letters and approvals by personal contact have been received, but so far no objections. There are problems connected with making this feature as useful as it should be: Occasionally, a member gets so hot under the collar that he substitutes personalities for principles in his discussion, and the editor is forced to reject or tone down his remarks. Once in awhile a member loses a manuscript, or holds it too long or forgets entirely to return it until reminded again and again of the injury his delay is working upon the author. We could move much faster and more effectively and with much less worry for the editor's competent as-

sistant if each author would send two copies of his paper when submitting it for publication.

The most important problem is in devising and carrying out a fair method of invitations to discussants. In order to secure a list of our members who wish to take part in these discussions, classified according to the branches of medicine holding their attention, a reply postcard has been sent out under authority of the Executive Committee. If you are interested, please do not fail to fill in your reply and mail it, because in the future this list, plus the wishes of the author, will be the only one utilized in sending invitations for discussions.

MEDICINE IN THE PUBLIC PRESS

The feature of abstracting and commenting upon things medical as they appear in the public press is another movement introduced during the year. Again, if we can trust our many letters and other information, this service meets with approval. Not unanimously so, however; we have received four criticisms—one from the health officer of Los Angeles City, one from the director of physical education of the State Board of Education, and one each from two active "near doctor" groups.

You may be interested to know that several other medical journals have followed us in this feature. The department could be made still more worth while if more members would follow the custom of sending to the editor marked copies of papers, reports, and what not of local public happenings that have a medical slant.

MEDICAL ECONOMICS

This newest department deals with questions of economics, including medical organization, legal medicine, ethics, scientific records, medical agencies, personnel, taxes, insurance, and the general broad field of the business side of medicine. Legal phases of medicine are broadening and increasing rapidly, and our counsel, Mr. Hartley F. Peart, and associate counsel, Mr. Hubert T. Morrow, have agreed to contribute to this department.

The department is intended to cover only that phase of economics particularly interesting to doctors, while economic problems of more general interest will continue to be handled by Better Health. Also, just as CALIFORNIA AND WESTERN MEDICINE notates medical matters in the public press, so Better Health magazine and the Better Health newspaper services look at medicine, including public health and all agencies of medicine, from the standpoint of the intelligent non-medical public. The Sunday newspaper service attempts to tell the general public some of the current problems of interest to doctors. No such combination of publicity services, blended and complementing one the other, ever before has been introduced into any other state or country. We cannot, of course, estimate accurately the importance or influence of these combined publicity services, but you may be interested to know that they receive well over a thousand letters a month.

EDITORIALS

I desire to acknowledge the splendid co-operation of Dr. P. J. Hanzlik, professor of pharmacology at Stanford University Medical School, and a member of the Council on Pharmacy and Chemistry of the A. M. A. Doctor Hanzlik writes one scientific editorial for every issue of CALIFORNIA AND WESTERN MEDICINE. Other scientific editorials are secured from Eastern friends. Although all of our members have been invited to contribute, not over two editorials were received during the last year from them. Some of them say, frankly, that they will write only signed editorials, which, of course, no worth-while magazine will accept.

All other editorials are prepared by the editors, and all of those affecting policy are submitted to the Executive Committee and approved by them before publication.

ORIGINAL PAPERS

The present liberal policy approved by the council and the House of Delegates, which allows an author full privilege as to whether he will offer his paper to CALIFORNIA AND WESTERN MEDICINE or to some other journal, and which at the same time allows the editors equally wide latitude in accepting or rejecting manuscripts, has worked out well. This policy has yielded an adequate supply of articles during the past year, and there are now on hand, fully edited, enough to make up several copies of the journal. This is as it should be.

The most difficult and trying work of any editor is his editorial work upon an author's copy. If the editor anchors the loose end of a suspended sentence, or cuts out a few repetitions, or cuts out the criticism of colleagues, which seems to be the favorite sport of some authors, or any other of the hundred and one things every editor must do, he is liable to secure an exposition of the author's wrath written in the perfectly good English that he failed to use in his scientific paper. Over 95 per cent of authors, and particularly those most experienced in writing, appreciate an editor's efforts and say so in encouraging letters. However, it sometimes happens that the most sympathetic and trying work of an editor is treated by an author as a personal insult.

ADVERTISERS

Modern advertising in any honest publication implies a standing spirit of co-operation between the publication and the buyer of space. In no other field should this spirit be more real and constantly acting than in medical journal advertising. We believe this implied mutual responsibility is as real in CALIFORNIA AND WESTERN MEDICINE as it is in any other advertising medium anywhere. It might be further improved even in our journal. An advertisement in CALIFORNIA AND WESTERN MEDICINE carries with it the endorsement of the California Medical Association, and the members could very well make that fact mean even more than it does, although it certainly means a great deal as it is. Our rates are exceedingly low, but they can only be raised as other medical journals increase their rates—at least, insofar as national advertising, of which we carry a great deal, is concerned. CALIFORNIA AND WESTERN MEDICINE refuses to do what some journals do, in giving one rate to national advertisers and another and higher one to local clients.

DIRECTORY CARDS

Although the growing custom of physicians all

over the country, of carrying their personal cards in the columns of legitimate medical publications, has the completest of sanction from an ethical standpoint, and, although the very obvious advantages of such a custom have been repeatedly pointed out by many writers in many places, the custom has not expanded in CALIFORNIA AND WESTERN MEDICINE as it has in many other state medical journals. We were among the first to start the custom, but most of the state journals carry many times as much of it as we do.

There can be no question but what California has one of the largest tourist and transient populations of any state. Thousands of these people are seekers of better health. They travel with instructions from their home physicians about doctors and medical agencies they should consult while away. Doctors from one part of our own state give patients going to another part similar instructions. Hundreds of doctors in our own and foreign countries use these directories in medical publications to make up instructions to their patients and friends, just as our members do for their patients who are going to other places and countries.

The problem is of more importance right now than most of our members realize. Careful consideration of the economics of this opportunity is commended, particularly to our worthy members who have not all the patients they want.

THE FUTURE

The complacency with which California permits herself to be classed as a terminal distributing point for Eastern centers in many activities, including medicine, instead of being the great primary cosmopolitan center she should be, has never appealed to me. No country of our size, wealth and attainments has equal opportunities for centralized leadership. This is true particularly for medical and scientific education, research, medical practice, and medical journalism. At least in our own field we should assert and carry forward that idea along the only lines that ever produce practical leadership. We believe CALIFORNIA AND WESTERN MEDICINE has made progress along this attractive road leading to vast, ever-expanding fields that should be tributary to us, scientifically speaking; and with your approval, support, and co-operation, we will stay on that road.

MINUTES AND PROCEEDINGS OF SECTIONS OF THE FIFTY-THIRD ANNUAL MEETING OF THE CALIFORNIA MEDICAL ASSOCIATION.

(Only part of the Sections have submitted minutes. These are published. Minutes of the remaining Sections will be published later if received, also pictures of Section officers.)

SECTION ON ANESTHESIOLOGY

R. F. HASTREITER, Chairman
E. F. BOYD, Secretary

Chairman's Address—The History and Progress of Anesthesia in California; R. F. Hastreiter, M. D.

Secretary's Report—The minutes of the meeting held in San Francisco in 1923 were read and approved. Following this was held the regular business meeting of the Section.

The first business was the election of officers. John R. Burrows of San Francisco was elected chairman of the Section for the ensuing year. Louisa Oldenbourg of Berkeley was elected secretary for the coming year.

Dr. Eleanor Seymour read a letter of greeting and well-wishes from Dr. McMechan, following which a resolution was unanimously adopted to the effect that a joint message of greeting from the State Anesthesiology Section and the Pacific Coast Anesthesia Association be sent to Dr. McMechan in the form of a night letter under date of May 13, 1924.

Other announcements concerning the program for the convention were made at this time and were as follows:

Tuesday and Thursday mornings, visits to the Los Angeles General Hospital, at which time anesthesia clinics were to be held.

Wednesday morning, a visit to Donald Baxter's laboratory in Glendale, to witness the manufacture of gases used in anesthesia at the present time.

Tuesday evening, the annual dinner-dance in honor of the incoming and outgoing presidents.

The following is the continuation of the program for the State Section:

Paper on "Paravertebral or Regional Anesthesia," by Ray H. Johnson and Charles E. Phillips; read by Dr. Johnson, discussed by Dr. Phillips.

Paper on "Sacral Anesthesia in Proctological Surgery," by Dr. A. J. Murietta; discussed by E. L. Gilcrest of San Francisco; closed by Dr. Murietta.

Paper on "The Antagonistic Functions of the Uterus in Relation to Regional Nerve Blocking." Read by Dr. H. T. Cooke of Los Angeles; discussed by M. H. Ross, with four case reports. Case report by Dr. Kavanoky of San Francisco; closed by Dr. Cooke.

Paper on "The Manufacture and Chemical Testing of Nitrous Oxide Gas," by Donald E. Baxter of Glendale.

Thirty-six present.

Meeting dismissed by chairman, Dr. Hastreiter.

Pacific Coast Association of Anesthetists, May 13

(Joint meeting with the Section on Anesthesiology of the C. M. A.)

MARY E. BOTSFORD, President
NEIL C. TREW, Secretary

At the meeting held May 13 the following resolutions were passed:

1. Resolved, That the greetings of the Pacific Coast Association of Anesthetists be forwarded to our absent president, Mary E. Botsford, with expressions of regret for her unavoidable absence.

2. Resolved, That greetings from the joint meeting of the Section on Anesthesiology of the California State Medical Association and the Pacific Coast Association of Anesthetists be forwarded in a night letter to the secretary-general, Dr. Frank H. McMechan, Avon Lake, Ohio.

3. Resolved, That the Pacific Coast Association of Anesthetists reaffirms its confidence in their secretary-general, Dr. F. H. McMechan, and tenders him its backing and support in his every endeavor to advance the specialty of Anesthesia.

4. Resolved, That the greetings of the Pacific Coast Association of Anesthetists be forwarded to the American Association of Anesthetists and the Section on Anesthesiology (Miscellaneous Topics) of the American Medical Association in joint session assembled at Chicago, June 9-14, 1924.

5. Resolved, That the Pacific Coast Association of Anesthetists extend to the California Medical Association their sincere appreciation for granting them a joint session with the Section on Anesthesiology, for incorporating their program, and for other courtesies extended.

6. Resolved, That the Pacific Coast Association of Anesthetists send fraternal greetings to the Canadian Association of Anesthetists in annual session at Ottawa, June 17-19.

7. Resolved, That the Pacific Coast Association of Anesthetists express to Dr. Elmer I. McKesson their deep appreciation of his untiring efforts in the advancement of the science of Anesthesiology, and in token of their esteem, elect him to honorary membership in the association.

8. Resolved, That this association re-enact the resolution of last year, expressed as follows:

> "Whereas, The safety of human life as an issue of public welfare depends upon expert anesthesia in workmen's compensation and insurance cases; be it
>
> "Resolved, That the Pacific Coast Association of Anesthetists urges that expert anesthesia by legally qualified physicians and dentists be provided for all such patients, and that fees be allowed commensurate with the risk involved and the service rendered; and further be it
>
> "Resolved, That copies of these resolutions be sent to the Industrial Commissions, all Liability and Fraternal Insurance Companies handling operative cases in this area."

9. Resolved, That the transactions and scientific papers of the Pacific Coast Association of Anesthetists, in session May 13-14, be placed at the disposal of Dr. F. H. McMechan, secretary-general of the Associated Anesthetists, for publication at his discretion in only such medical, dental and anesthesia journals as live up to the ethics and protect the interests of the specialty.

10. Resolved, That in order to maintain ethical relations to the specialty of Anesthesia, the Associated Anesthetists, at the congress June 9-14 in Chicago, shall take over or duplicate the National Anesthesia Research Society; and further be it resolved, that only members of the Regional Societies shall be eligible to election as governors.

Officers for the ensuing year were elected as follows:

President, Caroline B. Palmer, M. D., San Francisco; vice-president, Roland F. Hastreiter, M. D., Los Angeles; secretary-treasurer, Eleanor Seymour, M. D., Los Angeles.

Executive Committee (in addition to those named above) —Louise Oldenbourg, M. D. (1925), Oakland; Elizabeth Christensen, M. D. (1925), San Francisco; John Lundy, M. D. (1926), Mayo Clinic, Rochester (chief anesthetist); Frank Chandler, D. D. S. (1926), Hollywood; Donald E. Baxter, M. D. (1927), Glendale; William W. Hutchinson, M. D. (1927), Los Angeles.

Meeting adjourned to convene in joint session with the

Section on Anesthesiology of the California Medical Association, May, 1925, Yosemite Valley.

SECTION ON DERMATOLOGY AND SYPHILOLOGY

ANSTRUTHER DAVIDSON, Chairman
MOSES SCHOLTZ, Secretary

The first session of the Section on Dermatology and Syphilology was held May 12, at 2 p. m., with Anstruther Davidson in the chair and Moses Scholtz, secretary.

Dr. Davidson delivered the presidential address on "External Cancers—Their Treatment at the Los Angeles Cancer Clinic."

A paper on "Rice Dermatitis" was read by Harry E. Alderson of San Francisco; discussed by Drs. Piness and Davidson.

A paper on "Carbohydrate Intolerance Associated with Eczema" was read by Samuel Ayres of Los Angeles; discussed by Piness, Schroeter, Jacobson, Davidson, Scholtz and Frost.

A paper on "The Relationship of Metabolic Toxins to Dermatoses" was read by Oscar Schroeter of Los Angeles; discussed by Ayres.

The Section then adjourned.

Clinical Session

The clinical session was held on Tuesday, May 13, at 10 a. m., at the L. A. General Hospital. The following cases were presented and discussed:

"Leukoplakia," by M. Scholtz; discussed by Culver and Morrow.

"Lupus Erythematosus," by K. Frost; discussed by Schroeter, Miller, Scholtz, Culver, Jacobson, Morrow, Frost and Ayres.

"Multiple Cutaneous Leiomyomata," by M. Scholtz.

"Vegetating Pyodermatitis," by M. Scholtz; discussed by Culver, Morrow, Scholtz, Ayres and Jacobson.

"Fissured Tongue," by M. Scholtz; discussed by Culver, Nichols and Scholtz.

"Lichen Planus," by F. Nichols; discussed by Scholtz.

"Melanoma Turning Malignant," by K. Frost; discussed by Davidson.

"Vitiligo with Follicular Keratoses," by M. Scholtz; discussed by Morrow, Ayres and Scholtz.

"Lepra," by S. Ayres.

"Scrofuloderma," by H. Jacobson.

"Pyogenic Granuloma," by M. Scholtz.

"Lues Plus Varicella," by H. Jacobson.

"Lichen Spinulosus," by M. Scholtz; discussed by Frost, Morrow and Scholtz.

"Keratosis of the Lip," by K. Frost; discussed by Culver, Schroeter, Scholtz and Jacobson.

"Tumor of the Forearm," by M. Scholtz; discussed by Morrow.

"Lupus Vulgaris Treated by X-ray," by M. Scholtz; discussed by Davidson, Frost, Morrow, Scholtz, Ayres and Schroeter.

"Coccidioides Granuloma," by K. Frost; discussed by Jacobson, Davidson, Morrow, Culver and Frost.

"X-ray Atrophic Dermatitis with Secondary Epitheliomata," by M. Scholtz.

Third Session, May 14, 2 p. m.

The chairman appointed a nominating committee for the nomination of officers for the ensuing year: Drs. Tausig, Frost and Scholtz.

The committee returned the following names for election:

George Culver of San Francisco, for president; Harry E. Alderson of San Francisco, for vice-president; Hiram Miller of San Francisco, for secretary.

All those nominated were elected.

A resolution on the Industrial Medical Contract Work was presented and passed.

The following papers were read:

"Cancer of the Lip Treated by Radium," by Douglass W. Montgomery and George D. Culver of San Francisco; discussed by Tausig, Scholtz, Shawhan, Percy, Frost and Culver.

"Ringworm of the Scalp," by Hiram E. Miller of San Francisco; discussed by Ayres, Schroeter, Frost, Scholtz, Alderson, MacGowan and Kullman.

"Morphologic Instability of Cutaneous Lesions," by Moses Scholtz of Los Angeles; discussed by Culver and Alderson.

The meeting of the Section then adjourned.

SECTION ON EYE, EAR, NOSE AND THROAT

HARVARD McNAUGHT, Chairman
PERCIVAL DOLMAN, Secretary

The chairman called the meeting to order on May 12 at 2 p. m. in the Hotel Biltmore. It was decided to adjourn the meeting to roomier quarters in the Auditorium Building in order to accommodate an unusually large attendance.

The minutes of the previous meeting were read and adopted.

The chairman's annual address was devoted to a consideration of some of the more highly specialized procedures in the diagnosis and treatment of ear, nose and throat diseases. Special emphasis was laid upon the use of the endoscope and bronchoscope, but the specialist of limited practice was advised to refer all patients needing such examinations to someone who had acquired enough experience to avoid damaging the tissues involved. In a similar way the allergic reactions were best studied by a specialist in that type of technique.

Otto Barkan, at the request of Edward F. Glaser, presented a resolution asking the Section to record a vote condemning the employment of specialists by physicians who do insurance work. The resolution was referred to the officers for investigation.

The following papers were read and discussed:

"Diagnosis and Treatment of Chronic Ethmoidal Conditions," by Chairman Harvard McNaught; discussion by Eugene R. Lewis, Los Angeles; Frank A. Burton, San Diego; Cullen F. Welty, San Francisco; Theodore C. Lyster, Los Angeles; Francis L. Rogers, Long Beach; George W. McCoy, Los Angeles; Harry Montgomery, Los Angeles; Otto Barkan, San Francisco, and R. W. Miller, Los Angeles. The discussion closed by McNaught.

"Plastic Surgery of the Nose," by George Warren Pierce of San Francisco; discussion by William J. Mellinger, Santa Barbara; Cullen F. Welty, San Francisco; F. H. Brandt, Los Angeles; Harvard McNaught, San Francisco, and discussion closed by Pierce of San Francisco.

"Treatment of Lime Burn of the Eye," by Otto Barkan of San Francisco; discussion by Theodore C. Lyster, Los Angeles; George W. Jean, Santa Barbara, and discussion closed by Barkan.

Meeting adjourned for the day.

Second Session, Tuesday, May 13, 10 a. m.

Meeting called to order by Chairman McNaught.

The chairman, in reporting upon Edward F. Glaser's resolution, advised that it be laid on the table for a year for further study.

The following papers were read and discussed:

"Surgical Treatment of Acute and Chronic Conditions of the Antrum of Highmore," by Cullen F. Welty of San Francisco; discussion by Charles W. Brown, San Diego; Kaspar Pischel, San Francisco; Frank E. Detling, Los Angeles; Harvard McNaught, San Francisco; Frank A. Burton, San Diego; J. M. Brown, Los Angeles; E. F. Tholen, Los Angeles, and discussion closed by Welty.

"The Present-Day Advance in Plastic Surgery with Special Reference to the Correction of Deformities of the Nose and About the Orbit," by J. Paul de River, U. S. Veterans' Bureau, San Francisco; discussion by George W. Pierce, San Francisco, and closed by de River.

The next paper, entitled "The Importance of Accuracy in Refraction Work," was not read owing to the absence of the author, M. Morgan Cloud, Los Angeles.

"Allergies in Relation to Rhino-Laryngology," by George Piness of Los Angeles; discussion by Hill Hastings, Los Angeles; Cullen F. Welty, San Francisco; George W. McCoy, Los Angeles; Eugene R. Lewis, Los Angeles; F. E. Detling, Los Angeles; Benjamin Katz, Los Angeles; Louis K. Guggenheim, St. Louis, and discussion closed by Piness.

"Blood Staining of the Cornea," by Charles Maghy of Los Angeles; discussion by George W. Jean, Santa Barbara.

The chairman appointed the following nominating committee: J. M. Brown, Los Angeles; F. E. Detling, Los Angeles, and F. A. Burton, San Diego.

Meeting adjourned for the day.

Third Session, Wednesday, May 14, 2 p. m.

Meeting called to order by Chairman Harvard McNaught.

The following papers were read and discussed:

"Testing the Cochlea Directly, with Presentation of the New Instrument for Testing Hearing," by Isaac H. Jones of Los Angeles, and Vern O. Knudsen, Ph. D., University of California, Southern Branch; discussion by Cullen F. Welty, San Francisco; Harvard McNaught, and closed by Jones.

The chairman called for the report of the nominating committee, who proposed the following officers for the ensuing year:

Chairman, Ernest W. Fleming, Los Angeles; vice-chairman, William J. Mellinger, Santa Barbara; secretary, Percival Dolman, San Francisco.

There being no further nominations, the secretary was instructed to cast the ballot for these nominees, who were then declared elected.

Chairman McNaught thanked the members for their cooperation in making the Los Angeles meeting the largest one in the history of the Section. He announced that a total of 100 members had signed the register.

The next paper, entitled "A New Method of Treatment for Chronic Laryngeal Stenosis," was not read owing to the absence of the author, E. C. Sewall of San Francisco.

"Foreign Bodies in Respiratory and Upper Digestive Tracts" (lantern slides), by Simon H. Jesberg of Los Angeles; discussion by Chester H. Bowers, Los Angeles; George W. McCoy, Los Angeles; Harvard McNaught, San Francisco; F. A. Burton, San Diego; Charles W. Brown, San Diego, and closed by Jesberg.

A demonstration of Hasslinger's directoscope was given by Robert B. Sweet of Long Beach.

"Removal of Tonsils by Electro-Coagulation," by Albert C. Carlton of San Francisco; discussion by Francis L. Rogers, Long Beach; C. C. Stephenson, Los Angeles, and closed by Carlton.

The new chairman, Ernest W. Fleming, was introduced to the members by the retiring chairman. In a short address Doctor Fleming thanked the members for electing him to lead the Section for the ensuing year and asked for their hearty support during the 1925 meeting.

A vote of thanks was given the 1924 officers for their efforts in behalf of the program.

The meeting was then adjourned for the year.

SECTION ON GENERAL SURGERY

REA SMITH, Chairman
LEO ELOESSER, Secretary
LE ROY B. SHERRY, Assistant Secretary

First Meeting, Monday, May 12

"Cautery Knife Excision of the Malignant Uterus," by

J. F. Percy. In discussion, Bern advocated x-ray and radium treatment for carcinoma of the uterus; states that at the clinics of Freiburg and Erlangen, at which he was assistant, carcinoma of the cervix is no longer operated upon. In closing, Percy readvocated heat in the treatment of these cancers.

"Doubtful tumors," by A. R. Kilgore. In discussion, Lobingier emphasized frequency of bone metastases in mammary carcinoma; he advocated routine x-ray of chest and bones before operating on carcinoma of breast or uterus; mentioned a case of bone metastases ten years after primary operation. Newton Evans, Loma Linda, inquired whether whole tumors should not be removed rather than small sections. Percy emphasized danger of dissemination when operating other than with the cautery. Shephard mentioned Broder's classification of carcinoma of the lip into four grades with different degrees of malignancy. Kilgore, in closing, considered excision or incision of the lump for microscopic diagnosis a matter of indifference so long as the questionable tissue is actually examined. In breast carcinoma, in order to make sure of this, excision is probably preferable. The macroscopic appearance of the tissue is more important than the examination of the frozen section, especially when the section is made by an inexperienced pathologist.

"Some Unusual Bone Cases," by Richardson. In discussion, Emmet Rixford mentioned a case of albuminous osteomyelitis (Ollier) with staphylococci in the culture.

"Factors Influencing Mortality of Exophthalmic Goiter," by Shephard. In discussion, Toland advocated enthusiastically Lugol's solution in pre-operative care; he uses small doses, ten drops three times a day. Emmet Rixford, basing his deductions upon unfortunate experiences with patients who had had K. I. given them before operation, was afraid of Lugol's solution. However, he was converted by Plummer, from whom he recently learned that small doses sometimes make the patients worse, while large ones improve them. In closing, Shephard said one large clinic reported but one pre-operative death since using Lugol's solution; he reiterated the importance of early diagnosis.

"Diagnostic and Prognostic Importance of the Differential Leucocyte Count," by Newton Evans. Barrow, in opening the discussion, called attention to the low white count, often under 4000, with low polynuclear count and increase in large mononuclears found in protozoal infections. Cooke discussed a case of high leucocytosis without apparent cause.

Second Meeting, Tuesday, May 13

Symposium on Gall-bladder Disease

H. P. Hill and Lee's paper was not read on account of absence of Hill. Van Kaathoven's paper was not read.

Papers were presented by W. W. Boardman and Lobingier. These papers were discussed by Rixford, Willard Stone, C. P. Thomas, Vischer, of Los Angeles, W. H. Walker of Long Beach, Dow H. Ransom of Madera, Lockwood of Pasadena, Ryfkogel of San Francisco, and Bond; discussion was closed by Boardman and Lobingier.

"Acute Pancreatitis," by C. G. Toland. No discussion.

McAusland of Boston read a paper on "Arthroplasty," illustrated by motion pictures.

Third Meeting, Wednesday, May 14

At the business meeting the following Section officers were elected for 1924:

Chairman, W. I. Terry, San Francisco; secretary, C. P. Sturgeon, Los Angeles; assistant secretary, J. H. Woolsey, San Francisco.

"Esophageal Diverticula," by E. C. Moore. In discussion, A. J. Lockwood mentioned a case which occurred after gastrostomy. Tomlinson of Los Angeles endorsed the Sippy and Bevan method of treatment; he believes the two-stage operation preferable in larger diverticula. Shephard called attention to two cases of diverticulum in his practice. In closing, Moore considered gastrostomy usually unnecessary if string-guide sound method is used in preparation.

"Unusual Conditions in the Duodenum," by G. W. Nagel. No discussion.

Kahn's paper was not read.

"Surgical Treatment of Diseases of the Colon," by Charles E. Phillips of Los Angeles. In opening discussion Emmet Rixford said cecostomy might be useful in certain cases, but careful trial should be carried out before accepting this new method of which appendicostomy is a rival; Rixford feared dehydration if the opening is left unclosed too long. Cooke of Los Angeles considered cecostomy as a possible preliminary to excision of transverse, descending or pelvic colon. Phillips, in closing, stated he had never seen results from appendicostomy that might not be had from simple colon irrigation. As to Rixford's fear of dehydration, he believed that irrigation of the colon through the cecostomy opening would make up for loss of water.

"Cancer of the Rectum," by M. S. Woolf of San Francisco. W. L. Huggins of Los Angeles, in opening the discussion, mentioned two patients, one alive ten years and one three years after operation; one palliative operation with Percy cautery has kept an old man comfortable for some time. Asa W. Collins of Los Angeles stated that formerly almost all patients treated for cancer of rectum to Los Angeles County Hospital were considered inoperable and treated with Percy cautery. Now aseptic radical resections with preliminary cecostomy is the procedure of choice. Woolsey of San Francisco pleaded for early diagnosis and more frequent rectal examinations, digital and proctoscopic. Rixford of San Francisco mentioned as an early sign that patient often sits longer at stool and feels as though his defecation were incomplete. Chances for permanent cure are not bad if the patient survives the operation. The operative mortality should be lowered by combating deficiencies in technique. In three early cases he did a local excision via the anus: one in a man of 30; the tumor of 2x3 cm. in size was excised; there has been no recurrence after five years. Another in an old man who died one year later of diabetes, without recurrence of the cancer. Another patient died one year later of liver metastases, but without local recurrence. Rixford has seen no good results, but much suffering, from radium treatment, but he has several instances of cure after resection. Burger of San Diego advocated cautery excision. Callander of San Francisco called attention to Tenonvitlier's fascia in delimiting cancer of rectum and preventing the encroachment of rectal cancer onto the prostate, and vice versa. Shephard of San Jose called for preliminary laparotomy and colostomy in every rectal cancer. Woolf, in closing, considered the excision of the rectum for cancer a major operation that called for exact anatomical knowledge.

SECTION ON NEUROPSYCHIATRY

CHARLES L. TRANTER, M. D., Chairman,
209 Post Street, San Francisco.

GLENN E. MYERS, M. D., Secretary,
Marsh-Strong Bldg., Los Angeles.

First Meeting, Monday, May 12, 2 p. m.

Symposium on Child Guidance

"Reasons for Child Guidance Clinics"—Robert Lewis Richards, M. D., 240 Stockton street, San Francisco.

"The Habit Clinic for Pre-School Children"—Sydney Kinnear Smith, M. D., Medical Building, Oakland.

"Adult Delinquency; Its Prevention by Mental Hygiene in Childhood"—Joseph Catton, M. D., 209 Post street, San Francisco.

"Experience in Los Angeles in Child Guidance Work"—Aaron J. Rosanoff, M. D., 2007 Orange street, Los Angeles.

All the above papers were discussed at the end of the symposium by Ralph P. Truitt, M. D., director Child Guidance Clinic, 1414 South Grand avenue, Los Angeles; H. G. Brainard, M. D., Pacific Mutual Building, Los Angeles; Adelaide Brown, M. D., 909 Hyde street, San Francisco; Ross Moore, M. D., 520 West Seventh street, Los Angeles; Clifford D. Sweet, M. D., 440 Seventeenth street, Oakland; Josephine Jackson, M. D., 1955 Morton avenue, Pasadena; Edith Bronson, M. D., 1289 Second avenue, San Francisco.

Dr. Robert Lewis Richards presented the following resolution for consideration by the Section:

"Whereas, The California Medical Association is interested in mental and physical, medical problems very deeply; and

"Whereas, The Child Guidance Clinic offers a large field in preventive and treatment medicine; and

"Whereas, Los Angeles and San Francisco are the largest centers of population, with therefore more problems in clinics, schools, courts, social agencies and family life, as well as general educational movements; therefore be it

"Resolved, First, that Child Guidance clinics in coordinating existing agencies, and preventing disabilities in the most promising ages, have our hearty support;

"Second, that San Francisco as well as Los Angeles should develop this work;

"Third, that the Council of Social and Health Agencies affiliated with the Community Chest in San Francisco be urged to submit such an organization to the Community Chest in San Francisco, and urge the privilege of available demonstration Child Guidance Clinic from the Commonwealth Fund in New York for the year 1925."

This resolution was unanimously adopted.

Second Meeting, Tuesday, May 13, 2 p. m.

Chairman's Address—"The Surgery of the Sympathetic System"—Charles L. Tranter, M. D., 209 Post street, San Francisco.

"Osteomyelitis of the Skull" — Howard W. Fleming, M. D., 291 Geary street, San Francisco; discussed by Carl W. Rand, M. D., Pacific Mutual Building, Los Angeles; Edward Franklin, M. D., Bank of Italy Building, Los Angeles; discussion closed by Dr. Fleming.

"The Value of Cerebral Pneumograms in the Localization of Tumors of the Brain"—Edward B. Towne, M. D., Stanford University Hospital, San Francisco; discussed by Carl W. Rand, M. D., Pacific Mutual Building, Los Angeles; Charles E. Locke, Jr., M. D., University of California Hospital, San Francisco; Samuel D. Ingham, M. D., 1920 Orange street, Los Angeles; Charles E. Nixon, M. D., 870 Market street, San Francisco; F. E. Coulter, M. D., 424 South Broadway, Los Angeles; Cecil E. Reynolds, M. D., Pacific Mutual Building, Los Angeles; discussion closed by Dr. Towne.

"The Cerebral Subarachnoid Space and Its Importance in Surgery and Medicine"—Charles E. Locke, Jr., M. D., University of California Hospital, San Francisco; Howard C. Naffziger, M. D., 291 Geary street, San Francisco; discussed by Carl W. Rand, M. D., Pacific Mutual Building, Los Angeles; Edward B. Towne, M. D., Stanford University Hospital, San Francisco; Cecil E. Reynolds, M. D., Pacific Mutual Building, Los Angeles; discussion closed by Dr. Locke.

"Complications Following Brain Injuries"—Carl Wheeler Rand, M. D., Pacific Mutual Building, Los Angeles; discussed by Edward B. Towne, M. D., Stanford University Hospital, San Francisco; Samuel D. Ingham, M. D., 1920 Orange street, Los Angeles; Charles Lewis Allen, M. D., Los Angeles Railway Building, Los Angeles; Charles E. Locke, Jr., M. D., University of California Hospital, San Francisco; I. Leon Myers, M. D., Brockman Building, Los Angeles; discussion closed by Dr. Rand.

"Further Points in the Physiology of Brain Surgery"—

Cecil E. Reynolds, M. D., Pacific Mutual Building, Los Angeles; discussed by F. E. Coulter, M. D., 424 South Broadway, Los Angeles; discussion closed by Dr. Reynolds.

Third Meeting, Wednesday, May 14, 2 p. m.

"Serous Meningitis and Arachnitis"—Edward W. Twitchell, M. D., 909 Hyde street, San Francisco; discussed by Howard W. Fleming, M. D., 291 Geary street, San Francisco; Samuel D. Ingham, M. D., 1920 Orange street, Los Angeles; Charles E. Locke, Jr., M. D., University of California Hospital, San Francisco; I. Leon Meyers, M. D., Brockman Building, Los Angeles; discussion closed by Dr. Twitchell.

"Radiographs of the Head in Childhood from the Clinical Standpoint"—Henry Douglas Eaton, M. D., 1136 West Sixth street, Los Angeles; discussed by Thomas J. Orbison, M. D., Westlake Professional Building, Los Angeles; Edward B. Towne, M. D., Stanford University Hospital, San Francisco; Carl W. Rand, M. D., Pacific Mutual Building, Los Angeles; Cecil E. Reynolds, M. D., Pacific Mutual Building, Los Angeles; discussion closed by Dr. Eaton.

"The Progression Reflex: Its Manifestation and Value in Diseases of the Central Nervous System"—I. Leon Meyers, M. D., Brockman Building, Los Angeles; discussed by Samuel D. Ingham, M. D., 1920 Orange street, Los Angeles; Edward W. Twitchell, M. D., 909 Hyde street, San Francisco; Harold W. Wright, M. D., 870 Market street, San Francisco; Arthur R. Timme, M. D., Brockman Building, Los Angeles; Thomas J. Orbison, M. D., Westlake Professional Building, Los Angeles; discussion closed by Dr. Meyers.

"The Reflex Nervous Disorders as Described by Babinski"—Arthur R. Timme, M. D., Brockman Building, Los Angeles; discussed by Samuel D. Ingham, M. D., 1920 Orange street, Los Angeles; Thomas J. Orbison, M. D., Westlake Professional Building, Los Angeles; Harold W. Wright, M. D., 870 Market street, San Francisco; discussion closed by Dr. Timme.

"Consideration of Progressive Muscular Dystrophy with Pseudo-Hypertrophy from an Endocrine Standpoint"—Clifford W. Wright, M. D., 2417 South Hope street, Los Angeles; discussed by Hans Lisser, M. D., 240 Stockton street, San Francisco; Thomas J. Orbison, M. D., Westlake Professional Building, Los Angeles; Henry D. Eaton, M. D., 1136 West Sixth street, Los Angeles; Edward N. Reed, M. D., 2417 South Hope street, Los Angeles; discussion closed by Dr. Wright.

Fourth Meeting, Thursday, May 15, 2 p. m.

The secretary presented the report of the preceding meeting. The following resolution was read by the secretary, motion for its adoption was made by Aaron J. Rosanoff, M. D., motion was seconded by H. G. Brainard, M. D., and the resolution was adopted by the Section by unanimous vote:

Resolutions

"Whereas, Certain dealers in cut-rate contract practice, in the field of industrial medicine, have been able to build up their business and to enjoy a considerable prestige, by reason of the fact that they openly boast that they retain the services of certain well-known specialists to care for cases of serious injury under the contracts which they make; and

"Whereas, The activities of such dealers in contract practice are inimical to proper standards of all medical practice and, particularly, a menace to the general practitioners' practice, taking away large numbers of his patients and substituting, for the services of such general practitioner, an impersonal, perfunctory, routine service, to the detriment of both the patient so taken and of the general practitioner; and

"Whereas, It is largely by reference of cases from general practitioners that the clientele of every specialist is built up; now, therefore, be it

"Resolved, That the Neurological Section go on record condemning the acts of specialists who accept cases upon any terms, basis of compensation, salary or fee, from dealers in contract practice, be such dealers doctors or laymen, who take their profit by retaining a portion of the established fee of the doctor who actually renders service, or from moneys ostensibly collected for the specific purpose of paying for medical service; be it further

"Resolved, That acceptance of cases from such dealers is, in effect, a most pernicious form of fee-splitting and should be held good and sufficient cause for dropping the name of the specialist who continues to serve patients referred by such dealers from the membership roll of any reputable medical organization; be it further

"Resolved, (1) That the necessary steps be taken by the officers of the Neurological Section to give to each and every member of the Neurological Section the opportunity to endorse with his signature a copy of the above resolutions; (2) that a copy of the above resolutions, with signatures of all who have endorsed them appended, be published in California and Western Medicine as soon as a reasonable opportunity has been given for the specialists concerned to sign such resolutions, and a majority of the members have signed."

The following nominations were then made: For chairman, Glenn E. Myers, M. D., Marsh-Strong Building, Los Angeles; for secretary, Joseph Catton, M. D., 209 Post street, San Francisco. Nominations were closed and these officers elected by unanimous vote.

"The Inferiority Complex and Its Psychiatric Significance"—Harold W. Wright, M. D., 870 Market street, San Francisco; discussed by Aaron J. Rosanoff, M. D., 2007 Orange street, Los Angeles; Ross Moore, M. D., Brockman Building, Los Angeles; Thomas J. Orbison, M. D., Westlake Professional Building, Los Angeles; Josephine Jackson, M. D., 1955 Morton avenue, Pasadena; Christine Leonard, M. D., 1414 South Grand avenue, Los Angeles; discussion closed by Dr. Wright.

"The Psycho-Neuroses: Psychasthenia, Neurasthenia, Hysteria, Ambulatory Automatism, with Special Reference to a Certain Method of Treatment"—Thomas J. Orbison, M. D., Westlake Professional Building, Los Angeles; discussed by H. Douglas Eaton, M. D., 1136 West Sixth street, Los Angeles; Harold W. Wright, M. D., 870 Market street, San Francisco; Josephine Jackson, M. D., 1955 Morton avenue, Pasadena; C. W. Burr, M. D., Los Angeles, discussion closed by Dr. Orbison.

"Affectivity: Its Importance in Practical Medicine"—Charles Lewis Allen, M. D., Los Angeles Railway Building, Los Angeles; discussed by Edward Franklin, M. D., Bank of Italy Building, Los Angeles; Josephine Jackson, M. D., 1955 Morton avenue, Pasadena; Aaron J. Rosanoff, M. D., 2007 Orange street, Los Angeles; discussion closed by Dr. Allen.

"Treatment of Morbid Fear"—Samuel D. Ingham, M. D., 1920 Orange street, Los Angeles; discussed by Nathaniel H. Brush, M. D., San Marcos Building, Santa Barbara; Thomas J. Orbison, M. D., Westlake Professional Building, Los Angeles; C. W. Burr, M. D., Los Angeles; Charles G. Stivers, M. D., 1115 Arapahoe street, Los Angeles; discussion closed by Dr. Ingham.

"Some Fears of Endocrine Origin"—Edward Huntington Williams, M. D., Pacific Mutual Building, Los Angeles; discussed by Ernest Bryant Hoag, M. D., Pacific Mutual Building, Los Angeles; George G. Hunter, M. D., Pacific Mutual Building, Los Angeles; Harold W. Wright, M. D., 870 Market street, San Francisco; discussion closed by Dr. Williams.

"The Practitioner and the Diagnosis of General Paresis"—Nathaniel H. Brush, M. D., San Marcos Building, Santa Barbara; discussed by Samuel D. Ingham, M. D., 1920 Orange street, Los Angeles; Edward W. Twitchell, M. D., 909 Hyde street, San Francisco; Aaron J. Rosanoff, M. D., 2007 Orange street, Los Angeles; discussion closed by Dr. Brush.

Meeting adjourned.

SECTION ON PATHOLOGY AND BACTERIOLOGY

GLANVILLE Y. RUSK, M. D., Chairman
R. W. HAMMACK, M. D., Secretary

Meetings were held on the afternoons of May 12, 13 and 14, 1924. The program as published was followed out with slight variations in the order of the papers. Nearly every paper was discussed by several members. H. R. Oliver and W. T. Cummins were unable to be present to present their papers.

Section officers elected for the coming year are: Newton Evans, Loma Linda, chairman; R. W. Hammack, Los Angeles, secretary.

Regulating New York Laboratories—The law in New York gives to the State Board of Health rather wide latitude in the supervision and control of laboratories. Recently the following regulations regarding laboratory directors were passed:

"Resolved, That directors of laboratories which are to receive State aid under the provisions of Chapter 638 of the Laws of 1923 shall have the following qualifications:

I. They shall possess the educational requirements for the degree of doctor of medicine prescribed by schools recognized by the Regents of the University of the State of New York;

II. They shall have had special training of at least two additional years in pathology and bacteriology approved by the Public Health Council;

Provided, However, that, under special conditions, either or both of these qualifications may be waived by the Public Health Council.

Resolved, That bacteriologists-in-charge of laboratories which are to receive State aid under the provisions of Chapter 638 of the Laws of 1923 shall have the following qualifications:

I. They shall possess the educational requirements for a doctorate degree in science, public health or medicine as prescribed by a university holding membership in the Association of American Universities;

II. They shall have had special training or experience of at least two additional years in bacteriology approved by the Public Health Council;

Provided, However, that, under special conditions, either or both of these qualifications may be waived by the Public Health Council."

COUNTY NEWS

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary)—The last regular monthly meeting of the resident and visiting staff of the Alameda County Hospital for the present hospital year was held June 2, at 8 o'clock at the Ethel Moore Memorial building, 121 East Eleventh street, Oakland.

Program—General Anaesthesia in the Etiology of Tuberculosis, case report, by Hobart Rogers; discussion, by W. H. Strietmann. From among the outstanding cases of the month, the following were selected for review and report to the staff: Congenital Heart: New-born, two cases. Puerperal Sepsis, by C. A. DePuy. Squamous Cell Carcinoma of Penis, by A. M. Meads. Case of Atrophic Cirrhosis of Liver, With Autopsy Report. Case of Acute Endocarditis, With Autopsy Report. Exophthalmic Goiter, by R. T. Sutherland. Case of Acute Cholecystitis, Complicated by Acute Endocarditis. Acute Alcoholic Poisoning, by Q. O. Gilbert. Acute Encephalitis, by E. W. Goodman.

On Sunday, June 8, W. E. Mitchell was host to all the members of the Merritt Hospital staff at a "frolic" at his ranch in Contra Costa County. The party assembled at the hospital for breakfast at 8 a. m., and left immediately thereafter for the ranch. A wonderful time is reported.

At the regular monthly meeting of the Merritt Hospital staff, held Monday, June 9, at 8:15 p. m., "Treatment of Burns," by George Rothganger, and "Blood Urea and the Salivary Urea Index," by Robert Glenn, were the subjects discussed.

The monthly meeting of the Alameda County Medical Association was held June 16, at 8:20 p. m. Two interesting case reports were presented, with exhibition of patients: One, in whom a foreign body had been removed from the shoulder-joint, giving perfect results, by George Rothganger. One, an almost classical case of syringomyelia, by C. L. McVey and M. A. Torrano. "Rat-bite Fever," in the absence of William Mills, was read by C. A. Dukes, and "Cervical Sympathectomy for Angina Pectoris," by Sumner Everingham, were the papers discussed. E. N. Ewer presented the matter of optional medical defense, and Gertrude Moore spoke of some of the more interesting things she heard and saw at the meeting of the clinical pathologists at Rochester and the American Medical Association at Chicago.

In his tribute to the late R. T. Stratton, L. P. Adams said: "After a long illness, in which his courage never flagged, Doctor Robert T. Stratton was called to higher service on May 5, 1924.

A graduate of the Jefferson Medical College in 1886, he promptly located in Oakland and became one of the active practitioners. His achievements were many—for some years at the head of the City Emergency Hospital; one of the founders of the Oakland College of Medicine; a past president of our county association.

His interest in surgery, frequently expressed in published papers, especially the treatment of abdominal aneurysms and the closure of cranial defects, showed deep study and merited worthy comment.

The tribute from our society is inspired by his ever-present kindly spirit, the regard for his fellow-practitioners. Nothing human was alien to him, as he had the 'divine gift of sympathy.'

He wrought mightily for the welfare of his patients, and clothed the exercise of responsibility with a beautiful garment of gentleness.

His devotion to duty in private and civil life leaves us the richer, and the charm of it will long continue to remain in our memory."

CONTRA COSTA COUNTY

Contra Costa County Medical Society (reported by L. St. John Hely, secretary)—The regular monthly meeting of the Contra Costa County Medical Society was held Saturday night, May 31, at the offices of Drs. Cunningham and Carpenter, in the city of Richmond.

Communications were read from the state secretary, in regard to supporting the medical society of the state of California in the matter of continuing the indemnity insurance of the members. Dr. Emmett Rixford explained the reason for so doing. The county secretary promised to have the secretary of the state society mail a circular letter to every member, explaining the reason also.

Dr. Emmett Rixford, as the speaker of the evening, lectured on fractures. He explained the mechanics of fracture from the beginning, commenting on the treatment of each, concluding by citing several personal experiences.

This was the last meeting of the summer, the next regular meeting being September 27. The members adjourned to Martin's Grill for refreshments.

Those present were: Drs. U. S. Abbott, Richmond; J. T. Breneman, 71 Cerrito; J. E. Clark, Walnut Creek; W. E. Cunningham, Richmond; H. L. Carpenter, Richmond; P. C. Campbell, Richmond; E. R. Guinan, Richmond; F. L. Horne, Crockett; L. St. John Hely, Richmond; Denninger Keser, Richmond; J. M. McCullough, Crockett; William A. Rowell, Crockett; J. B. Spalding, Richmond; Miss Agnes Driscoll, Cottage Hospital, Richmond.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—The regular meeting of the Fresno County Medical Society was held at the Nurses' Home of the General Hospital, on June 3. Besides the following members, there were about twenty visitors from the School Department, Probation Office, District Attorney's Office, Public Welfare Department, Social Service Workers, and others. Members present: Drs. Aller, Anderson, Bell, Couey, Drake, Diederich, Jamgotchian, James, Kjaerbye, Lamkin, S. M. Long, Madden, Manson, Morgan, Newton, Nedry, Pettis, Schottstaedt, Sheldon, Strin, Thompson, Tillman, and Willson.

C. P. Kjaerbye of Fresno read a very interesting paper entitled "Behavior in Childhood and Its Relation to Criminals and Abnormal Personalities in Adults."

Joseph Catton of the Stanford Medical School gave an instructive and interesting paper on "The Role of Psychiatry in the Prevention of Adult Delinquency." He brought out the fact that 75 per cent of the inmates of the state prison were repeaters, and that they are mostly abnormal mentally. He emphasized the importance of keeping people with certain personalities in their own class and at their own level, and not trying to push them into other levels where they will be under too much stress and strain and may break down. Catton, like Kjaerbye, made a plea for the proper training and care of the child before the stage of the hardened criminal had been reached.

H. M. McNeil of Big Creek was unanimously elected a member.

Joseph Catton was the guest of the staff of the General Hospital at luncheon on June 3, and spoke on "Head Injuries." He took up the symptoms following such injuries.

RIVERSIDE COUNTY

Riverside County Medical Society (reported by Thomas A. Card, secretary) — The regular meeting was held in Carnegie Library school rooms, May 27. The program was as follows: "The Acute Otitis Media," by E. P. Miller, Riverside; discussion, by A. W. Walker, Riverside. "The Child With Defec-

tive Vision, by Will H. Holmes, Riverside; discussion opened by J. A. Connell, Riverside.

New members—W. L. Chilcott, San Jacinto, was elected to membership. J. A. Connell, Riverside, was elected to membership on transfer from San Bernardino County Medical Society. William R. Dorr, superintendent of the Riverside County Hospital, on transfer from the San Francisco County Medical Society.

The work on the new Community Hospital is rapidly progressing, and it is hoped will be ready for occupancy by October 1.

The work of the county health officer has been combined under the supervision of the superintendent of the County Hospital. Dr. J. G. Baird, who served as health officer of Riverside County, recently resigned.

The June open meeting of the society will take the form of a picnic, the society to meet at the Rainbow Angling Club, the guests of Drs. H. R. Martin and A. W. Walker, to partake of a trout supper.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement (reported by G. J. Hall, secretary)—The regular meeting was held Tuesday, May 20. Members present, thirty; visitors, 4. President Drysdale presided. Minutes of previous meeting read and approved.

Reports of cases—Dr. F. B. Reardan, neurological cases: First, multiple sclerosis; second, syphilitic lesion; developed discussion. This last case was discussed by Dr. Gundrum.

F. F. Gundrum reported case of chickenpox followed by pathology of central nervous system.

Subject of evening was "Gastric Syphilis," presented in symposium form with presentation of actual patients. Subject was opened by Schoff as syphilologist. He stated that subject presented was for the purpose of acting as a stimulus to the members of the society, who should constantly bear in mind possibility of syphilis affecting the stomach. Cases presented he said are some that have come under observation in the Sacramento Hospital within the last eighteen months, and all of which were post-surgical diagnoses. This latter fact, he hastened to remark, reflects no discredit on the clinicians who had the observance of the cases before operation, but rather strengthens the fact that this type of gastric clinical pathology is a very difficult one to diagnose. The histories are vague as to possible primary inoculation, other syphilitic stigmata on physical examination being practically absent, with the exception of a positive blood Wassermann; and one would hesitate, he thinks, in these cases to depend entirely upon a therapeutic diagnosis. Dr. Schoff then presented the patients, read the histories and charts from the hospital of each case, the first being a man of fifty-two, the second a woman of thirty, the third a man of twenty-one years, showing the great variation in age of patients. Dr. Schoff at this time reported a fourth case that had not been operated on that was clinically diagnosed as gastric syphilis and improved very rapidly under therapeutic treatment. Of these four cases, the diagnosis originally was carcinoma in two, and gastric ulcer in one of the three operated on, and the fourth, gastric syphilis, depending upon anti-syphilitic treatment to be final method of diagnosis.

First case of man, fifty-two years, and the provisional diagnosis of chronic perforating ulcer on lesser curvature and posterior surface stomach. Probably early carcinomatous change. Final diagnosis same, also syphilis. This case was admitted to the hospital in October, 1923; discharged January 10, 1924, after having had posterior gastro-enterostomy on November 4. Left the hospital, as above stated, and now at the present time normal in weight and carning his living.

Second case, Mexican woman, thirty-two years old, admitted to hospital March 5, 1924. Provisional diagnosis, carcinoma of stomach. Post-operative diagnosis inoperable; carcinoma of posterior wall of stomach. Almost normal in weight, feeling very well, after having received anti-syphilitic treatment.

Third case, provisional diagnosis, gastric ulcer of pylorus. Entered hospital September, 1922. October 22, gastro-enterostomy done, after which she gained nine pounds. Later on began having symptoms, again requiring continued treatment. Positive blood Wassermann was obtained, and anti-syphilitic treatment given for some time. Symptoms cleared up.

Fourth case, man forty years old, admitted to hospital April, 1924. History of chancre, 1921. Blood Wassermann, positive four plus. Treatment, anti-syphilitic, receiving sulpharsphenamine mercury and iodide. One month after treatment began, patient states is entirely free from pain, and eating all sorts of foods, the only discomfort he has being a little sense of fullness after eating fried meats. He has gained ten pounds in weight, and feels perfectly well.

Dr. Scatena next covered the aspect of gastric syphilis. Brought out histology, pathology, symptomatology, and types of gastric syphilis, types being three in number: First, cirrhosis; second, ulcerous; third, gummata. Symptomatology being very similar to that of ulcer and carcinoma.

Dr. Zimmerman gave the importance of roentgenology. Says there is nothing that is characteristic of syphilitic lesions in the findings. X-ray findings are only based upon relative density. He did, however, discuss at some length comparative findings in differential diagnosis. He left a realization on the part of all present of the fact that x-rays are of some help.

J. B. Harris then presented the surgical side of the question. He very ably covered the question of differential diagnosis again from the surgical viewpoint. Discussed the literature of the subject, and repeated Dr. Schoff's previous statement that pre-operative diagnosis is very difficult.

Discussion of the symposium was opened by Gundrum, who stated that these cases are very, very rare, and that the presentation of such cases showed Sacramento to be a definite clinical center. He considers syphilis a general disease, and as such must be treated accordingly. He complimented the physicians very highly, and felt that the symposium was one that was of equally as high a standard as those presented at the recent state association meeting.

Dunlap discussed two of the cases presented which had come under his care, and he had personally operated on.

F. B. Reardan talked on the medical side of the subject. Also discussed by Doctors Johnson and Dillon.

Dr. Schoff, in closing this discussion, made special reference in his remarks to that of treatment. Antiluetic treatment being the only type required, or at least the only type of treatment that was used in these cases, no other medicines being given at all, and all receiving ordinary hospital diet. In cases that presented symptoms of irritable stomach, vomiting from arsenic, Hg cyanid is used; iodide intravenous for four weeks made it possible to give the arsenic, with no apparent distress. Sulpharsphenamine caused vomiting in one case, and this patient was given silverarsphenamine with mercury and iodide intravenously, the only three drugs used being preparations of arsenic, mercury, and iodides.

This meeting was considered one of the best meetings held by the Sacramento Society for Medical Improvement, and was very interesting to those present, and very instructive. It was a long evening, on account of its importance and the unusually capable method and way the subject was presented.

Application of Tholow Binckley was voted on, and he was unanimously elected.

Section 1, Chapter 4, of the by-laws was read, and the section did not agree with the present state association rules. Motion was made and carried that the president appoint a committee on the constitution and by-laws.

Reports of delegates to the state meeting were received, as was also the report of the local secretary.

Meeting adjourned, with general statement being made that this was as good a presentation and of as good a standard as any state meeting.

SAN FRANCISCO COUNTY

Proceedings of the San Francisco County Medical Society (reported by J. H. Woolsey, secretary)—During the month of May, the following meetings were held:

Tuesday, May 6—Section on Medicine. Indications for splenectomy—Alfred Decastello of Vienna.

Tuesday, May 20—Section on Surgery. Chronic ulcerative colitis—M. S. Woolf. Pathology of chronic ulcerative colitis—E. Curtis Smith. Surgical complications of amoebic colitis—P. K. Gilman.

Franklin Hospital Clinical Society (reported by Ewald H. Angermann, secretary)—The regular monthly meeting of the Franklin Hospital Clinical Society was held at the hospital Monday, May 26, J. Wilson Shiels presiding.

The program was a symposium on basal metabolism. Basal metabolism apparatus of different types were demonstrated by Dr. Carl Werner. "Differential Diagnostic Value of Basal Metabolism" was presented by C. E. Taylor, in an instructive lecture. Presentation of cases referable to the subject were made by C. E. Taylor and D. D. Drake.

The next meeting will be held Monday, September 29, at 8:30 p. m. at the hospital. The program of the evening will be: "Demonstration and Treatment of Prostatic Median Bar," by Miley B. Wesson. Discussion will be open to all present.

St. Luke's Hospital Clinical Club—At the meeting held on June 10, J. Marion Read spoke on "The Non-surgical Treatment of Exophthalmic Goiter." Lantern slides were shown, detailing the courses of eighteen patients with exophthalmic goiter treated by non-surgical methods. The effect of roentgen irradiation and iodine were emphasized, especially the influence of iodine in reducing the pulse rate, and decreasing some of the thyrotoxic signs such as tremor. The cases cited had been observed for three to twenty-six months, and all showed marked improvement. Spontaneous cure in six to eighteen months is the rule, though an irreducible minimum of 2 per cent mortality attends this disease.

Since the etiology is unknown, all therapy is empiric. Surgical removal of nearly all the glands, which is based on a theory of hyperfunction, is not uniformly effective. The time element is the most important factor in effecting a cure. This we can assist by the following measures, in the order of their importance: (1) Rest, mental and emotional, as well as physical; (2) physiological support, the maintenance of nutrition, etc.; (3) roentgen irradiation; (4) iodine; (5) symptomatic therapy, as quinine hydrobromide, or digitalis when there is myocardial weakness; (6) surgery in a few selected cases.

This is the last meeting of the Clinical Club until fall.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by A. C. Soper Jr., secretary)—The postponed regular meeting was held at Cottage Hospital, Monday, May 19, president Robinson in the chair. Present, sixteen members, two internes, and one guest.

An application for membership in the society, coming from a physician not yet a resident of the county, was ordered to be "placed on file" until he becomes a resident.

Case Reports—L. W. Hotchkiss discussed a case of carcinoma uteri, with metrorrhagia and operation and autopsy; pathological specimen of same described by F. R. Nuzum. H. F. Ullmann described a case of psoriasis of twelve years' duration, showing involution under recent x-ray treatment; photographs before and after treatment were exhibited. Samuel Robinson reported on two fatal cases of gangrenous appendicitis; pathological specimen described by Dr. Nuzum.

W. D. Sansum gave the principal topic of the evening—"Acidosis, Its Causes and Treatment"; diagrams and demonstration of urinalyses were given, and considerable discussion participated in by Drs. Ullmann, Means, Koefod, Stevens, and Soper.

The June meeting was held on the 9th, at Cottage Hospital, President Robinson in the chair. Present, twenty-three members, four internes, and one guest.

The committee on patent and proprietary medicine ads in the local press presented a letter, to be sent to the Druggists' Association which, with the elimination of one sentence, was approved for transmission.

Five-minute case reports were given as follows: "Two Cases of Hyperacidity," by Allen Williams. "Chronic Encephalitis," by Nathaniel H. Brush. "Extra Uterine Pregnancy," by Rexwald Brown.

Max Rothschild of San Francisco presented the principal paper of the evening, being a masterful discussion of the "Modern Treatment of Pulmonary Tuberculosis." Considerable discussion ensued, participated in by Schurmeier, Nuzum, W. H. Campbell, Henderson, Jean, Stevens, Thorner, Rexwald Brown, Means, and Robinson.

The Diagnosis and Treatment of Cardiospasm—Four hundred and fifteen patients form the basis of the study made by Porter P. Vinson, Rochester, Minn. (Journal A. M. A.) The duration of symptoms was from two months to forty-five years, the average being about seven years. The onset of symptoms was sudden in sixty-seven patients, and gradual or not stated in the others. The symptoms varied according to the stage of the disease, and the degree of dilatation of the esophagus above the spasm. The most constant symptom was dysphagia, varying in degree from a slight obstruction of food to complete esophageal closure for as long as eighteen years. Because of the limited intake of food, marked nutritional disturbances occurred, especially during the early stages of the disease. Later, patients acquired methods whereby more food could be forced into the stomach, usually by eating solid or semi-solid food, and then drinking several glasses of water in rapid succession. This causes the spasm to relax and allows the food to pass into the stomach. One hundred and thirty-seven of the patients often regurgitated food and mucus at night. The regurgitated food was unchanged by digestion and did not contain free hydrochloric acid. One hundred and ninety-seven patients had epigastric pain; it was the chief complaint of many, and the initial symptom of a considerable number, often antedating, by several months, the onset of dysphagia. Forty-nine patients had respiratory symptoms, usually consisting of nocturnal cough, and dyspnea after meals, due to regurgitation, or the pressure from the dilated esophagus filled with food. A few patients noted hiccough as an early symptom. The diagnosis of cardiospasm is made on the typical roentgenographic findings and a history of dysphagia of long duration, without progression, in patients who have had as much difficulty in swallowing liquids as solid food, and in whom a 45 French olive can be guided into the stomach without obstruction on a previously swallowed silk thread. Numerous forms of treatment have been employed in the management of cardiospasm, chief of which are anti-spasmodic drugs, and mechanical dilation of the cardia by some type of expanding dilator. Dilation of the cardia should be regarded distinctly as a surgical procedure, since occasionally there may be a fatality. The immediate results are remarkable. Following dilation, almost all patients are able to eat any type of food without discomfort, and if the closure has been complete for several days, the patient gains weight immediately. There are recurrences in about 25 per cent, usually noted within the first six months after treatment. A few patients cannot be completely cured, in spite of frequent dilations, but the majority obtain complete relief if the treatments are repeated. There have been four deaths following dilation.

Utah State Medical Association

J. R. MORRELL, M. D., Ogden - - President
WILLIAM L. RICH, M. D., Salt Lake - Secretary
W. R. CALDERWOOD, M. D., Associate Editor for Utah

Annual Meeting of State Association—This meeting is in progress as California and Western Medicine goes to press. Full proceedings will be published in the August number. The papers presented at the meeting will be published in subsequent issues.

Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—A regular meeting of the Salt Lake County Medical Society was held at the Holy Cross Hospital, Monday, May 26, the program being arranged by the staff of the Holy Cross Hospital. Forty-six members and eight visitors were present. The minutes of the previous meeting were read and accepted without correction.

A. N. Minear gave the history of a case of osteomyelitis. This disease was discussed by A. G. Hosmer, who presented x-ray films of two cases, and described the clinical course and treatment.

Sol G. Kahn presented a case of fracture of the third cervical vertebra, the patient's symptoms being relieved by extention.

J. J. Galligan presented a case of multiple fracture of the spine in the lumbar region, with residual pain along the course of the left sciatic.

A. J. Murphy showed the pathological specimens of some dermoid cysts, four cases of which he had operated upon within a period of ten days.

J. P. Kerby read a paper on "Anomalies, Injuries, and Diseases of the Spine from an X-ray Standpoint," and presented some very interesting films to illustrate the conditions described in his paper.

A letter from E. Libman of New York to G. G. Richards, relative to Professor Aschoff's stay in Salt Lake City next month, was read. Sol G. Kahn moved that Professor Aschoff's lecture be held at 5 p. m., July 25, 1924, and that the subject be chosen by the committee. Seconded and carried.

L. J. Paul reported for the committee to act with the Fraternal Liaison Committee of the Disabled American Veterans of the World War. He read a letter from the general committee which asked for $300 from physicians and surgeons of Salt Lake City. He suggested that the Salt Lake County Medical Society go on record as approving or disapproving this quota, and offered a resolution to the effect that the members of the society make voluntary contributions in the amount of $2 or more to assist in defraying the expenses incident to this convention.

F. H. Raley moved that the resolutions be adopted, seconded and carried, as follows:

It is hereby resolved that the members of the Salt Lake County Medical Society at the regular session held May 26, 1924, desire to express their approval and willingness to assist in making the Fourth National Convention of the Disabled American Veterans of the World War at Salt Lake City, June 23, 1924, a success.

It is further resolved that small contributions be made of $2 or more by each member of the society to assist in defraying the expenses incident to a convention of this size and importance.

Joseph A. Phipps discussed his recent malpractice suit.

Meeting adjourned at 10:05, after which delicious refreshments were served by Sister Superior and her staff.

Minutes of the Meeting of June 9, of the Salt Lake County Medical Society—The society met June 9, at the Commercial Club, Salt Lake City, Utah, President A. A. Kerr presiding. Fifty-two members and three visitors were present. Minutes of the previous meeting were read and accepted without correction.

President Kerr opened the meeting with a few well-chosen remarks relative to the business side of medicine.

In the absence of W. R. Calderwood, Thomas E. Clark reported for the Investigating Committee and offered a resolution. This was discussed by Willard Christopherson, City Health Commissioner, who objected to the phraseology. It was moved by R. R. Hampton that the resolution be referred back to the committee for rewording. Further discussion by Thomas E. Clark, G. G. Richards, Willard Christopherson, Helmina Jeidell, William F. Beer, and W. C. Cheney. A. P. Kirtley seconded the motion of R. R. Hampton. W. W. Barber moved that the resolution be adopted, but this was out of order. Further discussion by Helmina Jeidell and W. L. Felt. Original motion was voted upon and carried.

R. R. Hampton gave a verbal report for the Public Health and Legislation Committee. He recommended that the State Board of Health broadcast health news instead of the Salt Lake County Medical Society, and also recommended that Willard Christopherson inform the citizens of Salt Lake City, through the press, about the character of cases the Emergency Hospital is authorized to take care of.

H. P. Kirtley reported for E. F. Root for the Medico Legal Committee. He moved that a copy of the report be sent J. C. Landenberger, chairman of the Committee of Professional Welfare and Ethics for the Utah State Medical Association. Seconded by G. G. Richards, and carried.

There followed a discussion in which R. R. Hampton, Spencer Wright, F. H. Raley, and William F. Beer participated relative to the possibility of the society recommending to the insurance company that a physician be denied insurance if the society thought he was not ethical.

G. G. Richards reported for the Aschoff Committee.

L. J. Paul reported for the Disabled American Veterans of the World War Committee.

Applications for membership signed by George E. McBride and M. Skolfield were read and referred to the board of censors.

A communication from the Doctors' Business Bureau of this city was read.

Meeting adjourned at 9:15. Adjournment was followed by a buffet luncheon and smoker.

Chartering and Supervision of Educational Institutions—One of the great needs in the field of both general and professional education in the United States is the establishment in each state of a board or commission which will have in charge, not only the decision regarding the issuing of charters to proposed educational institutions, but also to supervise such institutions after they have been established, and to recall the charters in case the institutions are conducted in an unethical or disreputable manner. Through the lack of just such agencies this country had been the birthplace of more irregularly conducted, underworld, standardless, conscienceless, irresponsible, so-called educational institutions than any other country on the face of the globe. At the present time any coterie of men, by paying a small fee, can secure a charter in any but a few states of the country, no question being asked regarding their ability either educationally or financially to establish such "school" or "college" on a reputable basis. Furthermore, after securing their charter, the incorporators can begin at once the issuing of any and all diplomas without hindrance, so far as legally established supervision or control are concerned. This is indeed the land of the free and the home of the brave, but that should not be construed that everyone has a free license to issue counterfeit diplomas or any other form of educational buncombe.—Federal Bulletin.

Nevada State Medical Association

HORACE J. BROWN, M. D., Reno.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

Washoe County Medical Society (reported by C. E. Piersall, secretary Nevada Medical Association)—The Washoe County Medical Society met in regular session, with President R. H. Richardson in the chair, May 13.

Minutes—The minutes of April 8 were read and approved.

Applications — Doctors Barrows, Sellars, Hamer, and Edwards were voted in as members. The application of Dr. Vandenberg was read and handed to the board of censors.

It was voted that the chair was to appoint three members by letter to serve as a legislative committee, who are to decide whether or not laws are to be proposed to eliminate Chinese practitioners.

J. La Rue Robinson presented a case of paralysis of abducens two days following mastoid operation. It was suggested by Doctors Bailey, Servoss, and Morrison that this was a coincidence, and due to toxemia.

Henry Albert presented a paper on "Foot and Mouth Disease in the Human."

Mr. F. D. Tuthill demonstrated a portable house.

Dr. Albert showed many interesting lantern slides of famous paintings illustrating medical history.

Those present were: Members—Richardson, Pickard, Caples, Robinson, Brown, R. V. Smith, Albert, Riley, Piersall Morrison, Servoss. Visitors—Professor Frandsen, Dr. Baumgartner, Bailey, Mr. F. D. Tuthill, Carmichael, Mr. Cann.

Washoe County Medical Society (reported by Vinton A. Muller, secretary) — The Washoe County Medical Society met in regular session, with President R. H. Richardson in the chair, June 10. The minutes of the meeting of May 13, were read and approved.

Applications — The application of W. J. Vandenberg of Minden, Nev., was reported upon as having been approved by the censors. M. A. Robison moved that the rules be suspended and the secretary cast a ballot electing Doctor Vandenberg to membership in the society. The motion was seconded and carried. The applications of Harold F. Atwood of Sparks and Ajika Amano, Reno, were read for the first time, and given to the board of censors.

Program—Doctor A. B. De Chene presented two cases of esophoria and, demonstrated the patients before the members. W. W. Washburn of San Francisco was the guest of the evening, and presented an intensely interesting paper on "Diagnosis and Treatment of Surgical Condition of the Neck." He gave a careful description of the lymphatics of the neck before going into the various tumors, and handled the subject in an excellent manner. After the conclusion of the paper, Doctor Washburn presented a series of lantern slides to illustrate various points brought out.

General Business—There being no old or new business to come before the society, the point was raised as to whether or not the usual summer intermission, which takes place during the months of June, July, and August, should prevail this year. It was the consensus of opinion that when interesting programs could be had it would not be necessary to suspend the meetings. On the advice from the secretary that Doctor H. K. Berkeley of Los Angeles would be in Reno some time during the summer prepared to give a paper on a subject in pediatrics, it was moved, seconded, and carried that the secretary call a special meeting when Dr. Berkeley arrives.

Attendance—The attendance was better than at the previous meeting, those present being: Members—Richardson, Servoss, Pickard, Piersall, M. A. Robison, Adams, De Chene, Da Costa, W. H. Hood, Barrows, Tees, Fuller, Dalby, Smith, Bath, Hardy, Riley, Samuels, Muller. Visitors—W. W. Washburn, Doctor Marvin, Doctor Manning.

Rate of Sugar Absorption in the New-born—Randolph G. Flood, San Francisco (Journal A. M. A.), presents the results of a limited number of cases in which he has plotted the blood sugar curves of newborn infants following the ingestion of given sugars. In the cases studied, the number of children fed glucose was twelve; galactose, four; levulose, seven; maltose, eleven; lactose, fourteen, and sucrose, sixteen. The subjects were all infants aged under fourteen days; some were breast-fed and others bottle-fed. The blood sugar was first determined; then the infant was given, by gavage, 3 gm. of the desired sugar per kilogram of body weight. Glucose showed the most astonishing rapidity of increase of the blood sugar of any of the carbohydrates. The apex, representing an increment of approximately 40 per cent of the first blood sugar determination, was reached between sixteen and twenty-one minutes after its ingestion. However, the maximum increase was poorly sustained, as it fell from 75 to 80 per cent within twenty minutes after it reached its vertex, and attained its original level within fifty minutes. With galactose the apex of blood sugar increase was not reached for from forty-five to sixty minutes. The increment was only 25 per cent. However, this was fairly well maintained, as it dropped only 30 per cent in thirty minutes, and 63 per cent in one hundred minutes. With levulose, the apex of the curves was not reached for from sixty to seventy-five minutes, and the increment was the least in any of the monosaccharids, amounting to only 24 per cent. The descent was quite prolonged. Thirty minutes after the apex was reached, the increment had fallen 50 per cent, and it had fallen 85 per cent in one hundred minutes after the giving of the sugar. With lactose the maximum increment of 24 per cent was reached fifty minutes after the ingestion of the sugar. The curve was well sustained, dropping only 14 per cent thirty minutes after reaching its apex, and 35 per cent one hundred minutes after the taking of the sugar. Sucrose had the least effect on the blood sugar contents. The increment was only 15 per cent of the first blood sugar determination, and the maximum was not reached for from eighty to ninety-five minutes; but the curve was well sustained, falling only 2 per cent thirty minutes after the apex was reached, and 8 per cent one hundred minutes after the taking of the sugar. With maltose the maximum increment of 42 per cent was reached in from sixty to seventy minutes, and was fairly well sustained, dropping only 20 per cent thirty minutes after the apex was reached, and 40 per cent one hundred minutes after the taking of the sugar.

The Management of Abortion—Nine hundred and sixty-one consecutive cases of abortion have been subjected to a detailed study by Onslow A. Gordon, Jr., Brooklyn (Journal A. M. A., March 29, 1924). He concludes that all cases of abortion, threatened, inevitable or incomplete, should be treated conservatively until it is demonstrated that conservative treatment has failed. Conservative treatment, properly executed, will fail in something less than four cases out of a hundred. The mortality and morbidity in abortion cases is in direct ratio with the degree of intrauterine intervention. The more manipulation and intervention, the higher the mortality and morbidity. Curettage in abortion transposes many aseptic cases into septic cases. Curettage, therefore, is not only seldom indicated, but is often actually harmful. Conservative treatment has, if possible, a more positive indication in septic cases than aseptic cases.

Medical Economics and Public Health

Group Practice in Glendale—A group consisting of Dr. A. G. Bower, Internal Medicine and Pediatrics; Fred Loring, Eye, Ear, Nose, and Throat; Arthur Munger, Obstetrics and Gynecology; Norman C. Paine, Surgery; Dr. Wright, Dentist, has been formed to practice in Glendale. The inclusion of a dentist in this group is indication of the present thought about the inclusiveness of medicine.

American Medical Association Bulletin—Doctor, if you have not done so, look over the May number of the A. M. A. Bulletin. It is interesting, discusses many subjects that we are all interested in. The Bulletin comes to you free as part of the service your national association renders you.

Ohio Medical Association Commends Sane Policy of Board of Health—In connection with the movement to reduce the mortality and morbidity rates through frequent health examinations, our committee has watched with interest the activities of the special state association committee on periodic health examinations, and would like to particularly emphasize the importance of the ruling of the State Director of Health, as set forth in the committee report. THE DIRECTOR HAS HELD THAT HIS DEPARTMENT WILL DISCOURAGE ANY ATTEMPT UPON THE PART OF HEALTH OFFICERS TO CONDUCT PHYSICAL EXAMINATIONS, AS HE FEELS THAT IT IS NOT WITHIN THE AUTHORITY OR DUTY OF PUBLIC HEALH OFFICIALS TO DIAGNOSE AND RENDER TREATMENT.

While the state department of health organizes and conducts numerous clinics, their announced purposes are educational rather than for rendering treatment and medical attention. In several states, these publicly conducted clinics have developed into diagnosis and treatment centers instead of being confined to educational demonstrations. This naturally has led to vigorous protests against such socialized medicine.

The city of Chicago is now in the throes of experimental state medicine. A recent report of the secretary of the board of directors of the Municipal Tuberculosis Sanitorium says that 24,360 patients are under treatment by the twenty-one dispensary doctors.

Socialized medicine has also taken root in several of the larger universities, where for small compulsory fees, each student is furnished with a year's medical service and treatment. In one instance, the extension service of the University of Wisconsin openly advocates the adoption of such health service by the entire country.

Upon the subject of socialized medicine, the Cincinnati Enquirer has editorially declared that "the nationalization idea is a phantasy. Carried to its logical conclusion, it would strip the world of aspiration, human sympathy and healthy joy."

Upon several occasions, our committee has pointed out the fallacy of federal subsidies and federal interference with purely state activities. The House of Delegates of the state association at the seventy-seventh annual meeting in Dayton passed a resolution condemning the "state aid" practice and the trend toward a bureaucratic government. Just recently, the President of the United States, in a public statement directed to the various governmental department heads, declared that he would not approve of further expansion of federal aid to states, and outlined the hazards that are certain to follow such a course.

Taking Care of Tuberculosis Patients for Moderate Fees—Doctor Ralph B. Scheier, medical director of the Canyon Sanatorium Annex and the Canyon Sanatorium, announces again to the medical profession and the public that, "For the benefit of patients unable to pay the regular rates at Canyon Sanatorium, Redwood City, we have established The Canyon Sanatorium Annex, where selected cases of tuberculosis will be provided with sanatorium care at $15 per week. This rate is made only for incipient cases, and special application is required before admission."

In order to provide these special rates, the Canyon Sanatorium Annex is carrying on the traditional policies of the medical profession, by utilizing the profit which accrues from the Canyon Sanatorium to meet the deficit caused by helping those unable to help themselves completely, by taking care of them at a rate which is less than the cost of maintenance.

Should Schools Be Closed Because of Infectious Diseases?—The answer to this question is not as simple as first thought might suggest. It is by no means a settled one in the minds of public or private health physicians in this or other countries. The London Lancet recently discussed the subject editorially, taking the stand that "the experience of the school medical service of this country appears steadily to be crystalizing in a form opposed to the use of school closure as an instrument for the control of infectious disease.

"But while the experience of school medical officers in the service of local authorities is in general increasingly unfavorable to closure as a preventive measure against the spread of disease, it must be confessed that their practice does not always march with their precept. It is not uncommon for school medical officers to advise closure of an elementary school department on account of infectious disease when the attendance drops to a low level—perhaps in the neighborhood of 50 per cent of the normal—such closure being largely for the convenience of the education authority, and to save loss of grant from the treasury on account of low attendance rather than because the medical officer has any faith in closure as a means of controlling the outbreak. It needs something of the casuist to draw any clear distinction between the school medical officer acting on such a basis and the headmaster of a boarding school who closes his school on account of infectious disease. Is there not scope for both to review their methods and to define the procedure which will make for the greatest good of the children under their supervision?"

Fees in Industrial Cases—Under this title, the May number of the journal of the Indiana Medical Association contains a thoughtful editorial covering various phases of the medical problems of industry. The editorial is too long to reproduce in California and Western Medicine, but I do not hesitate to commend its careful perusal to all students of this burning question.

What We Must Designate as Grim Humor—The number of physicians treating venereal diseases appears to be constantly increasing, says Health News, New York State Department of Health.

"According to the records of the Division of Venereal Diseases, 863 physicians found at least one case of gonorrhea or syphilis during 1923, an increase of 669 over 1922. The total number of physicians submitting specimens to the laboratory in accordance with the Sanitary Code regulations is, in reality, much larger than the above figures would indicate, since 935 physicians submitted specimens in 1922 who did not do so in 1923, and 1367 sent in the required specimens during 1923 who had not done so in 1922. The total number who submitted specimens during the two-year period, 1922 and 1923, constitutes approximately 50 per cent of the registered physicians in the state, exclusive of New York City."

"When diploma-mill 'doctors' deal death," the New York Times recently asserted in an editorial, "the public is horrified. When genuine doctors ask for laws to protect the people from quacks and charlatans, a large and vocal part of the public sides with the get-degrees-quick impostors and take up their cry of bigotry, monopoly, and persecution.

"This," the editorial continues, "is the history of medical legislation everywhere. And since the legislators hear the voice of the people much more clearly than the voice of the expert, the diploma-mill 'doctors' who lack knowledge, training and professional honor, continue to practice."

In commenting upon this editorial, the Ohio State Journal of Medicine believes that "such an expression from the press is not only sincerely appreciated by reputable physicians, but it is a source of considerable comfort, as it presages the awakening of America to the menace of the incompetent and charlatan."

Business Ethics—Ethics is one of the fundamental pillars of society. They are not always written, and when they are, only general principles are enunciated. The principles of medical ethics which physicians have evolved from the Hippocratic oath, like all other ethics, is little more than an expansion of the Golden Rule.

There is food for thought for physicians in a study of the principles of business ethics adopted unanimously at the twelfth annual meeting of the Chamber of Commerce of the United States at Cleveland, in May.

The function of business is to provide for the material needs of mankind, and to increase the wealth of the world and the value and happiness of life. In order to perform its function it must offer a sufficient opportunity for gain to compensate individuals who assume its risks, but the motives which lead individuals to engage in business are not to be confused with the function of business itself. When business enterprise is successfully carried on with constant and efficient endeavor to reduce the costs of production and distribution, to improve the quality of its products, and to give fair treatment to customers, capital, management, and labor, it renders public service of the highest value.

We believe the expression of principles drawn from these fundamental truths will furnish practical guides for the conduct of business as a whole and for each individual enterprise.

1. The foundation of business is confidence, which springs from integrity, fair dealing, efficient service, and mutual benefit.

2. The reward of business for service rendered is a fair profit plus a safe reserve, commensurate with risks involved and foresight exercised.

3. Equitable consideration is due in business alike to capital, management, employes, and the public.

4. Knowledge—thorough and specific—and unceasing study of the facts and forces affecting a business enterprise are essential to a lasting individual success and to efficient service to the public.

5. Permanency and continuity of service are basic aims of business, that knowledge gained may be fully utilized, confidence established and efficiency increased.

6. Obligations to itself and society prompt business unceasingly to strive toward continuity of operation, bettering conditions of employment, and increasing the efficiency and opportunities of individual employes.

7. Contracts and undertakings, written or oral, are to be performed in letter and in spirit. Changed conditions do not justify their cancellation without mutual consent.

8. Representation of goods and services should be truthfully made and scrupulously fulfilled.

9. Waste in any form—of capital, labor, services, materials, or natural resources—is intolerable, and constant effort will be made toward its elimination.

10. Excess of every nature—inflation of credit, overexpansion, overbuying, overstimulation of sales—which create artificial conditions and produce crises and depressions, are condemned.

11. Unfair competition, embracing all acts characterized by bad faith, deception, fraud, or oppression, including commercial bribery, is wasteful, despicable, and a public wrong. Business will rely for its success on the excellence of its own service.

12. Controversies will, where possible, be adjusted by voluntary agreement or impartial arbitration.

13. Corporate forms do not absolve from or alter the moral obligations of individuals. Responsibilities will be as courageously and conscientiously discharged by those acting in representative capacities as when acting for themselves.

14. Lawful co-operation among business men and in useful business organizations in support of these principles of business conduct is commended.

15. Business should render restrictive legislation unnecessary through so conducting itself as to deserve and inspire public confidence.

The Lay Press—"Few of us give due credit to the newspapers and literary magazines for the interest manifested relating to the practice of the healing art," says Frederick L. Van Sickle (Atlantic Medical Journal). "It was quite a general custom in former years to poke fun at the medical doctor for his errors and habits. Of late this has ceased to a great extent, and many of the better journals, as well as newspapers, have taken sides with the medical profession in the endeavor to elevate the practice of medicine, and show up in its true light irregular practice of treating the sick."

Shall We Fight Back—"Medicine has its origin in ignorance and superstition, and the wonderful progress made in this benevolent science has yet touched but a small proportion of the population of the earth," says the Atlantic Medical Journal editorially. "Even among the medical men themselves, there are 'Fundamentalists' and 'Modernists,' and it behooves the more enlightened to guard well their enlightenment lest some reactionary outburst extinguish it.

"Furthermore, it is not sufficient to fight with antiquated weapons. The old-fashioned physician thought that his defense lay in his ethics, in his strict adherence to duty. Far be it from us to belittle this point of view, for it has made medicine what it is; but in these days, when bigotry and quackery are fighting for their very life, ethics and duty are not sufficient defense. The first must be carried into the enemy territory, or medicine, like Belgium and France, will suffer all the devastation.

"In plain English—If the anti-vivisectionists and the anti-vaccinationists and the various cults are going to attack the science of medicine and endanger the public health through the legislative halls of the state, medicine must carry the fight there first. Medicine must marshal political influence by political methods if legislative results are to be obtained—and legislative results must be obtained for the safety of the people. Medicine must put behind it its traditional reluctance to enter politics, not for its own advantage, but to protect the people from their own ignorance of conditions as they are."

Important for Women Physicians—Doctor Rachel Hickey Carr and Doctor Lena K. Sadler, in urging women physicians to attend the American Medical Association meeting at Chicago (Illinois Medical Journal), made this interesting statement: "A survey of the Medical Directory of the state of Illinois records approximately 700 women physicians. Fifty are eclectics, 147 are from the homeopathic colleges, and 493 from the regular schools. Only 146 of the graduates from the regular colleges are reported as members of the American Medical Association."

Periodic Health Examination—Under this title the Maine Medical Journal says, editorially:

"How many physicians really stop and seriously consider just what this means? If John Jones comes into your office and says, 'Doc, I would like to have you go over me and see if I am O. K.' What is the usual reply? It is apt to be, 'Get to H-ll out of here, John! You are all right.' And when you give him that generous bit of advice you honestly believe it, for you have known John for a number of years and are thoroughly familiar with his method of living, and cannot see how he could be seriously ill. But Bill Jackson comes into your office a few minutes later, with rather advanced kidney lesion, or T. B., or malignant disease, etc., and you look him over and with equal honesty say to him: 'Why in H-ll didn't you come to me sooner, when I could have been of some help to you?'

"'Well, Doc, honest to God, can you tell what exists without a thorough overhauling?' and that means a careful check of all the various systems of the body, and both John and Bill are willing to pay for real service, but make it absolutely real and worth while to them. We are living in a more or less artificial atmosphere, and even though we know Bill and Jones intimately, we do not know all their habits of life, and perhaps the worse one is excessive eating with little or no exercise.

"Suppose, when John came to your office, you said, 'Sure, John, take off your clothes and let me examine you,' and then made a complete and thorough examination. Do you think he would refuse to pay you for your time? No, if you could assure him every six months or a year that he was O. K., he would be glad to pay you $5 or $10 for the information, providing you did a complete check-up, whereas, on the other hand, if you found some disease in its infancy and guided him to the road to complete recovery, monetary consideration would not be of little consideration to him.

"Now, Doc, why not sit down and seriously consider a careful systematic method of a physical examination and begin on all your cases? Advocate their coming to you regularly at stated intervals for a complete check-up, and see how much more satisfactory the practice of medicine becomes."

A Dangerous Precedent—Discussing this subject editorially, the Boston Medical and Surgical Journal says: "Health Commissioner Monaghan of the city of New York has issued an appeal that during the month of May every child in the city be given a thorough physical examination—a gigantic stock-taking of the health of this age group of the population. During this period, various baby health stations and other organizations throughout the city will place at the disposal of the public for this purpose the service of doctors and nurses.

"A widespread and continuous taking of stock of the health of all our population of all ages is a most desirable object. No group of citizens can be more desirous of preserving health than the medical profession, and the Journal is heartily behind any sound method that will help to attain this object in a manner designed to promote the best interests of the nation for all time. There are certain questions that must be raised, however, and answered; there are certain facts that must be considered before Commissioner Monaghan's plan can be given complete endorsement.

"Does the future well-being of the population depend on an efficient and well-trained medical profession? The answer must be in the affirmative. Can a profession progress continually forward and upward without the factor of a spirit of competition; a competition that brings with it the promise of the highest rewards for the greatest degree of success? Such progress without such competition is doubtful. The spirit of the profession can be preserved only by safeguarding the individual independence of its members, by answering to each one that his success need be measured only by his ability to secure it. This assurance can be given only by preserving for the physician his right to conduct his own practice, within legal and ethical limits, according to his own ability; and for the patients his right to see medical advice according to his ability to select it and pay for it.

"Commissioner Monaghan's plan to provide free physical examinations for all who may wish them is a step in the direction of state medicine, and state medicine will spell the doom of inspiration in medical work and of unlimited medical progress. Man has accomplished little without a definite incentive—the incentive to improve his intellectual, spiritual, and physical condition. An attempt at the leveling of all men might be made, but if it were accomplished this level would be low—the valleys of mankind might be filled in, but they would be done so at the expense of the peaks. . . .

"The idea of health examinations put forth by Commissioner Monaghan is a good one; we have long advocated it; but let it come about by education of the public to an appreciation of its benefits, so that they may ask it of the medical advisors whom they themselves select, and by education of the medical profession so that it will recommend it to the public whose confidence it enjoys."

Telling Non-medical Organizations How to Practice Medicine Without a Doctor—A recently revised edition of a brochure on medicine, public health and health education written by two non-medically educated women, published by the Federal Bureau of Education, is being distributed in large numbers.

This pamphlet, like so many others of its kind, is chiefly occupied with still further magnifying those newly discovered diseases (?) "malnutrition," and "undernutrition," which appear to be reaching the stage of a great pandemic. Like others of this fast-appearing series of pamphlets, it tries to steer a safe course between the teachings of Christian Science and scientific medicine. A difficult thing to do and poorly done, as any careful reader will observe.

The following abstracts from this pamphlet are amusing or serious, as suits your fancy:

"A good school nurse is the health teacher of children, school-teachers, and parents. She is the connecting link between the school, the home, and the community."

"Only a well child can profit by instruction."

"Provide for dental work. It is less wasteful of school time to take the dentist to the school, when it can be done, than to take a group to an office where many must wait while few are served. A medical clinic might be established in like manner."

"Write to your state director of physical education, in the State Board of Education, and ask for suggestions as to corrective work for children who have crooked backs, round shoulders, one shoulder higher than the other, flat feet, and other postural defects. If you have no state director of physical education, write to the United States Bureau of Education, Washington, D. C."

"If malnutrition is your special problem, there are many sources of helpful information—your State Agricultural College, State Department of Education, State Department of Health, United States Department of Agriculture, United States Public Health Service, United States Bureau of Education, and many others."

"Teachers as well as children eat inadequate breakfasts and lunches. There is a crying need for teachers' hot school lunch and adequate rest rooms. The time will come when communities will demand that teachers as well as children be provided with cots or steamer-chairs for a noon siesta."

"Publicity—Before approaching community groups or boards of health or education, it is well to have preliminary publicity in newspapers, magazines, etc. It is often necessary to create 'news' in order to get a given subject in the papers. For example, if you wish to interest a community in providing scales for

its public schools, ample publicity can be secured through carrying out a weighing and measuring contest in one or all of the local schools. Public officials and important individuals can assist in this contest in order to provide a legitimate reason for the papers' daily stories."

"In mapping out any health campaign, it pays to spend time and energy to make as careful a plan of attack as that of a military staff before battle."

A Straw Shows the Direction of Air Currents—"The establishment of a consciousness of the need of attacking physical defects among our school children as a part of our educational program can scarcely be overemphasized," says the Federal Commissioner of Education. "This is peculiarly true with reference to eyesight, because defective vision interferes more with educational progress than any other defect of sensation.

"Experience has clearly established that tests for defective vision may be carried out advantageously by the teachers. It is important to emphasize that suitable provisions are not now made for training teachers, school nurses, and health inspectors in the methods of making tests."

Chiropractors and the Law—A number of prosecutions and convictions of chiropractors for malpractice in various places is disturbing them more profoundly than they have ever been disturbed before. In an editorial, commenting upon the conviction of one of them recently, the New York Times says:

"Ernest G. H. Meyer, one of the too many men who, without a medical education, have engaged in the practice of medicine, was convicted of manslaughter in a Brooklyn court this week, and may receive a maximum sentence of from ten to twenty years in jail. As the jury recommended clemency, it is not likely that his punishment will be severe, but the conviction will stand as a precedent, and shows that convictions can be obtained in spite of that absence of intention to do harm which always counts so heavily with jurors—and with judges, too, for that matter.

"Meyer, who calls himself a 'chiropractor,' was summoned by misguided parents to treat a sick child. He performed some of the spinal manipulations which constitute the whole stock in trade of his class. Whatever the result of his exertions may have been, he did not discover that the child was suffering from diphtheria, a disease which almost any sane adult ought at least to suspect before it is far advanced, and a real doctor was not called in until just before the fatal termination. Then there was administered the antitoxin which in all probability would have saved the child's life if resort to it had been timely, but it was too late and the little girl died, a victim of a double ignorance. This to the jurors was manslaughter.

"One comment on the verdict heard in the courtroom was that if it is to stand any 'chiropractor' unlucky enough to lose a patient can be sent to jail. The statement will excite neither dissatisfaction nor apprehension among people fairly well informed as to the preparation necessary for the practice of medicine and who have sense enough to know that there is more in it than surgery and the giving of drugs, to which all the 'irregulars'—euphemism for 'quacks'—desperately try to confine its definition."

Hospital Ousts Osteopath—At Memphis, Tenn., the superintendent of the Baptist Memorial Hospital refused to permit an osteopath to treat patients in the hospital. Later a patient was admitted, supposedly under the care of a regular member of the staff, but who, it turned out, was the patient of the osteopath who was treating the patient. As soon as he learned of the facts, the superintendent ordered that the osteopath be refused further admission to the hospital. The osteopath endeavored to secure an injunction prohibiting the superintendent from stopping his treatment of the patient, claiming that he, the osteopath, was regularly licensed and that, since the hospital was a public institution erected and maintained by public funds, its superintendent had no right to bar him from practicing in it. The attorney for the hospital argued that the hospital was responsible to the public, and had the right not only to make such regulations as would enable it to determine the character of the work being done, but also to bar anyone who did not meet the requirements. Other cases cited in which decisions had been rendered against osteopaths were the Julia F. Burnham Hospital of Campaign, Ill. and the St. Anthony's Sanitarium of Amerillo, Texas. In this instance also the decision favored the hospital, and the osteopath's injunction was denied.—Monthly Bulletin of Federation of State Medical Boards of the United States.

Economy in Care of Sick in Germany—In a discussion of this subject in Deutsche Medizinische Wochenschrift, Professor Kraus says: "Every physician shall carefully determine whether medicine is actually needed in a given case. Writing prescriptions for the sole purpose of giving the patient something should cease, since it is waste. A physician should consider whether he can accomplish the same purpose by simple therapeutic agents rather than by prescribing expensive drugs. Physicians must not prescribe more than is absolutely necessary, and they should encourage patients to prepare simple remedies for themselves. In many cases the older and simpler drugs that are cheaper than those put out by modern pharmaceutic houses will accomplish the same results. There is too much covering up of unpleasant taste of certain remedies, when it is not absolutely needed. This adds to the price. Separate powders are usually more expensive than tablets prepared in large quantities; pills can be made up at less than half the cost of powders. The cost of a trip to a spa can frequently be saved. Treatment at home can often be made to suffice. Physicians should not prescribe expensive foreign mineral waters when domestic products will serve the same purpose."

Legislative Programs—The Indiana State Medical Association has prepared an interesting legislative platform: (1) That all persons, classes, sects or cults, who pretend to recognize and treat human disease, shall stand equal before the law. (2) That one fundamental educational standard be required of all who pretend to recognize and treat human disease, and all should submit to the same license requirements. (3) That one board pass on the fundamental and professional qualifications of all persons seeking a license to permit them to offer their services to the public as one skilled in the recognition and treatment of human disease. (4) That the present law be so amended that it will prohibit any person engaging in practice, under any name whatsoever, which has for its purpose the recognition and treatment of human disease, until these principles have been complied with. (5) That nothing shall be written into the law which could in any way be construed as interfering with any method of treatment, which any person who had complied with these principles might wish to employ.—Indiana Medical Journal, April, 1924.

Fall Hay-fever—"It is time to protect the annual sufferers from fall hay-fever by giving them a full prophylactic course of pollen extract," say Parke Davis & Company. "The full course requires six to eight weeks, one injection being given every three or four days. By beginning early, severe reactions can be avoided, the first few doses being very small; and as every injection raises the patient's resistance, the gradually increasing doses that follow are usually as well borne as the first.

"While most cases of fall hay-fever are due to ragweed pollen, it is advised that a diagnostic test be made before the extract is given hypodermically,

since this takes only a few minutes of the doctor's time. The test is a cutaneous one."

What the Patient Wants—"The enlightened patient of today is not satisfied with a let-me-see-your-tongue, feel-your-pulse, are-you-constipated, here-are-some-pills kind of examination. He wants a careful going-over from his head to his toes, and if the doctor misses anything that he should have seen, woe be to the doctor."—Atlantic Medical Journal.

The Intradermal Salt Solution Test—C. A. Aldrich and William B. McClure, Chicago (Journal A. M. A.), present an analysis of the results of the application of the intradermal salt solution test in sixteen cases in children characterized by generalized edema, albuminuria, casts and in some cases red blood cells in the urine, absence of increased blood pressure, lack of nitrogen retention in the blood, and showing no evidence of cardiovascular disease. Thirteen of the cases were studied during acute attacks or exacerbations. They found that, in a general way, the greater the edema the shorter was the disappearance time, and vice versa. When tests were made on patients with developing edema, a reduction of the disappearance time preceded other clinical evidence of edema by several days. In improving edematous cases, increased disappearance time has been observed before the edema showed any apparent decrease. It has occasionally closely approached sixty minutes before the edema was entirely gone. There was no constant relationship between the disappearance time and the degree of albuminuria. There was a tendency to parallelism between the curve of the disappearance time and that of the urinary output, although the change in the disappearance time preceded the change shown on the urinary output chart in some instances. Of five patients in whom the disappearance time in the leg fell below one minute, four died. During improvement with gain of weight, due to normal tissue increase, the disappearance time curve tended to parallel that of the weight. During changes of weight due either to retention or to loss of water, the weight and disappearance time curves were in opposite directions, with few exceptions. In three cases tested only during or after convalescence, the time was more than sixty minutes. The authors regard this test as a valuable method of determining the immediate prognosis in such cases, and of showing changes earlier than are shown by any other means with which they are familiar. It is an aid in directing the therapeutic management of these cases. These results seem to substantiate the theories that the tissues in this type of case are active in the development of edema. It is emphasized that this is not a renal function test, although increase and decrease in urinary output tend to follow similar changes in the disappearance time.

Meningitis—In a list given by Josephine B. Neal, New York (Journal A. M. A.), containing 1535 cases of meningitis arranged according to age and etiology, it is seen that, with the exception of tuberculous meningitis, more cases of meningitis occur in the first year of life than in any other one year. The number of cases of meningococcic meningitis in the first year of life far exceeds those in any other year. The greatest number of cases of tuberculous meningitis is found in the second year of life. In times when there is no epidemic, the number of cases of tuberculous meningitis equals or exceeds the number of cases of meningococcic meningitis. After the meningococcus, the pneumococcus and the streptococcus are the most common causes of purulent meningitis, followed by the influenza bacillus, the staphylococcus and bacillus coli, in the order named. Cases due to the last two organisms are comparatively rare. Other pyogenic organisms occasionally cause a meningitis, and, more rarely, members of the higher group of organisms, such as the members of the streptothrix group and the pathogenic yeasts. Mixed infections are rare.

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Stevens, William E., Urology in Women. Reprinted from The Journal of the American Medical Association, December 8, 1923, Vol. 81, pp. 1917-1923.

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Wolfe, Samuel, Mental Instability in Ex-Service Men —How Acquired; How Remedied. Reprinted from The Military Surgeon, July, 1922.

A New Colorimetric Method for the Determination of Urea with Urease—The colorimetric method for the determination of urea in blood serum and other similar materials reported in 1920 by Nakasima and Maruoka, is worked out on the principle of Schiff's reaction, by which the urea gives a purple-red in the presence of hydrochloric acid and furfurol. Nakasima has devised a method that consists in the application of stannous chlorid to make the reaction so delicate and gradual that a small variation in the urea content of the test material can be recognized through the nuance of the reaction. This reaction is specific to urea nitrogen. Nothing else in the residual nitrogen of the blood gives the samc reaction except allantoin, which gives a similar one; but the reaction is slower and its color is darker. Moreover, the allantoin content of the blood is generally so small that it may almost in every case be disregarded. Therefore, this reaction is said to be first and foremost an ideal method for the determination of urea, because it is, so to speak, the direct method, while all other methods heretofore used have been indirect. One more advantage of the method lies in the fact that it can be carried out with a small quantity of the test material, and the technic is very simple. Kintaro Yanagi, Tokyo, Japan (Journal A. M. A., April 12, 1924) has perfected the method also for the purpose of clinical investigation, and has proved its delicacy and accuracy to be almost equal to those of thc urease method. The possible error with this method is at the most 2.45 mg. per hundred cubic centimeters, which is also unavoidable with the urease method.

Simplicity of Technic—George de Tarnowsky, Chicago (Journal A. M. A.), pleads that operating-room ceremonial is in need of readjustment. Nurses and interns—and some surgeons—are obsessed with the belief that the preparation of the field of operation, carried out with a ritual that makes a Greek church high mass look simple by comparison, will in some mysterious way prevent post-operative shock and intestinal paresis. In the observance of this ritual there is an enormous wastage of towels, sheets, suture material and solutions. Gentleness in handling tissues is an art that needs more emphasis than it is, at present, given in our teaching and writing. Pre-operative starvation, purging and frightening are potent factors in the causation of post-operative shock, intestinal paresis and protracted convalescence. The simplest surgical technic, based on accurate anatomic knowledge of the issues involved, will give the best results.

BOOK REVIEWS

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1923. Cloth. Price, postpaid, $1. Pp. 72. Chicago: American Medical Association, 1923.

This volume contains the unabridged council reports that have been adopted and authorized for publication during 1923. Some of the reports, due to their technicality, have only been abstracted in The Journal; others have been published in entirety, and still others have never been published elsewhere.

In this volume the council sets forth the reasons that certain proprietary remedies were found unacceptable for New and Non-official Remedies, the reason why it has been deemed wise to omit certain hitherto accepted articles from the present, 1924, edition of New and Non-official Remedies, and the volume also contains certain preliminary reports on products that have therapeutic promise, but are as yet in the experimental stage. There is a long report on the widely advertised Fleischmann's Yeast, which was not found acceptable. Benetol, another article that has had much mention in the daily press, receives attention. There are reports on apiol and mercurial oil, which have been omitted from New and Non-official Remedies. In addition to these types, there are preliminary reports on bismuth in the treatment of syphilis, ethylene as an anesthetic, peptone in the treatment of migraine, and tryparsamid; and there are reports of such general interest as that on intravenous therapy and that on progress and conservatism in therapeutics.

For one who wishes to be cognizant, not only of what the council has done, but why it has done it, the book will be very valuable, for it supplements New and Non-official Remedies with a more detailed account of the activities of the council during 1923. New and Non-official Remedies records those proprietary remedies which have been accepted; council reports treat those which have been found unacceptable, and those which give promise of becoming valuable.

New and Non-official Remedies, 1924, containing description of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1923. Cloth. Price, postpaid, $1.50. Pp. 422+ XXXIX. Chicago: American Medical Association, 1924.

Every physician is continually bombarded with literature, scientific and otherwise, concerning the newer remedies. He has neither the time nor the opportunity to investigate all even of the more promising preparations, and obviously he cannot try them upon his patients without investigation. He must know the composition of the article, must know that the claims under which it is marketed are true; in other words, he must have some critical statement of the actions, uses and dosage, as well as of the chemical and physical nature of the product.

This need of the physician is met in New and Non-official Remedies, which is the official publication through which the Council on Pharmacy and Chemistry annually presents to the American medical profession disinterested, critical information about the proprietary preparations which the council deems worthy of recognition. In addition to the description of these proprietary preparations, the book treats those non-official remedies which, in the opinion of the council, are worthy of consideration.

As the book is designed for ready reference, each preparation is classified, and each classification is preceded by a general and critical discussion of that group. These articles are written by those who may

speak with authority on the separate subjects, and are a compilation of the best accepted opinions of today. Thus there is a general article on lactic acid-producing organisms in which the newly accepted bacillus acidophilus preparations are discussed in connection with other accepted sour or fermented milk preparations. The animal organ preparations, the biologic preparations, the arsenic preparations, and so on, are discussed in such a manner as to make the accepted facts concerning each group readily available.

A glance at the preface of the new volume will show that the book has been extensively revised. In fact, each new edition of New and Non-official Remedies is essentially a newly written book, fully indexed.

Physicians who wish to know why a given proprietary is not described in New and Non-official Remedies will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book), there are references to published articles dealing with preparations which have not been accepted.

New and Non-official Remedies is a book that a physician who prescribes drugs cannot afford to be without. The book contains information about medicinal products which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of $1.50.

Diseases of the Rectum, Anus, and Colon. By Samuel Goodwin Gant. Three volumes. Illustrated. Philadelphia and London: W. B. Saunders, 1923.

Gant's work is in three volumes and includes, along with the usual subject matter, sections on the appendix, the ileo-colic angle, spina-bifida, backache, sciatica, skin affections of the perianal region and buttocks and lupus vulgaris. This constitutes a new departure in a work of this kind and one the value of which is debatable. What is set down in the present volumes is largely the result of Gant's vast experience. This is probably the reason for the omission of a bibliography.

While always an advocate of the use of local anesthesia, Gant has so extended its indication as to cover fully 80 per cent of all his operations. This also includes laparotomies. He uses eucaine, ⅛ per cent plus adrenalin.

In former years, the author was an ardent advocate of the clamp and cautery operation for internal haemorrhoids. Gant's pile clamp is the best of its kind, but today he concludes that, for general practice, the ligature operation is the best.

Seven chapters treat very thoroughly of fistula; they constitute a veritable storehouse of information. Operation is the only treatment that has given him results. Beck's paste has been a disappointment.

The chapters on prolapse, stricture, ulceration, colitis, tumors, and constipation are all well handled. The treatment is largely surgical. The various operative procedures, many original with the author, are given in such detail, and with such profusion of illustration, that no one can have the least difficulty in following them. Appendicostomy is a favorite operation. Colostomy is resorted to only when unavoidable. Colectomy is advocated only in cases of extensive ulceration, stricture, or tumor formation.

The illustrations are so profuse as to almost border on the extravagant.

Gant has produced a book that is a mine of information, the result of rich and ripe experience, a book in which both the general practitioner and the specialist will find much that is of value. A. N.

Fifty Years of Medical Progress, 1873-1922. By H. Drinkwater, M. D. Illustrated. The MacMillan Company, 1924.

Doctor Drinkwater has rendered the cause of medicine a distinguished service in his painstaking efforts to condense into one small volume the essential contributions to medical knowledge during the half century from 1873 to 1922. We believe most readers will regret the author's chronological method of presenting his facts.

We hope the author will now utilize his data for the preparation of a narrative story of the accomplishments of these fifty years for the general reader.

The International Medical Annual: A Year-book of Treatment and Practitioner's Index. By Many Contributors. Forty-second Year, 1924. New York: William Wood & Company.

For physicians who subscribe to and read a few good medical journals or who have available good medical library facilities and use them, we fail to see reasons for books of this class.

Undoubtedly, review books are useful for physicians in rural places who are denied the opportunities of libraries and of association with their fellows.

The editorial board of The Medical Annual contains the names of many men prominent in the various branches of medicine. They have taken their responsibilities seriously, and have produced one of the best of the annual reviews of the best in medical progress.

A Text-book of Pharmacology and Therapeutics or the Action of Drugs in Health and Disease. By Arthur R. Cushny, M. D. Illustrated. Lea & Febiger, Philadelphia and New York, 1924. Price, $6.

This splendid book has for years been accorded a rare and useful place among medical literature. We can pay it no higher compliment than to state that the publisher's complimentary copy is set aside for the editor's desk use.

A Study of Masturbation and Its Reputed Sequelae. By John F. W. Meagher, M. D. New York: William Wood & Company, 1924.

In this little book of sixty-three pages, Doctor Meagher supplies a useful compend of knowledge upon one of the frequently neglected, but nevertheless important, by-paths of medicine. Every physician, particularly those who serve children, should read this monograph.

Case of Solitary Tuberculous Ulcer of the Lip—In December, 1922, while eating, the patient in the case cited by G. T. MacPherson and H. W. Gregg, Butte, Montana (Journal A. M. A.), bit his lip. Several days later, after the wound from the tooth had almost healed he noticed that it again broke down and this time showed no tendency to heal. In fact, it had become larger. The submaxillary and submental lymph glands were somewhat enlarged, but there was no generalized adenitis. There was no other ulceration about the mouth, tongue or throat. The dark field was negative for spirochetes, and the Wassermann test (Kolmer technic) was negative. The family and past history were not noteworthy until the last year. In this time the man had had frequent colds, a chronic cough, more persistent in the morning, shortness of breath, considerable expectoration of thick, yellow, tenacious sputum, occasional night sweats for the last five months, and a history of slight hemoptysis four months before admission. His appetite had been poor for the last eight months, and he became fatigued very easily, although he kept on working. In the absence of evidence of a syphilitic nature in the ulcer, it was felt that the diagnosis probably lay between an epithelioma and a tuberculous lesion, with the probabilities being in favor of the former, even considering the patient's age. A wedge-shaped section of the lower lip, including the ulcer, and with its lines well outside the ulcer edges, was removed. Microscopic examination led to the diagnosis of tuberculous ulcer. The most probable source of this ulcer was infection from the sputum developing in a sore made by the patient's biting the lip.

BOOKS RECEIVED

A Manual of Histology. By Henry Erdmann Radasch, M. D., Professor of Histology and Embryology in the Jefferson Medical College. Second edition, with 333 illustrations. Philadelphia: P. Blakiston's Son & Co.

Insanity and Law. A Treatise on Forensic Psychiatry. By H. Douglas Singer, M. D., Professor of Psychiatry, University of Illinois, College of Medicine; formerly State Alienist and Director of the State Psychopathic Institute of Illinois, and William O. Krohn, M. D., formerly Resident Psychologist to Kankakee State Hospital; Head of Department of Psychology at Western Reserve University, and at the University of Illinois. Philadelphia: P. Blakiston's Son & Co.

The Anatomy of the Nervous System, from the standpoint of development and function. By Stephen W. Ranson, M. D., Ph. D., Professor of Anatomy in Northwestern University Medical School, Chicago. Second edition, revised. Octavo volume of 421 pages with 284 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company. 1923. Cloth, $6.50 net.

National Health Series. Edited by the National Health Council, written by the leading health authorities of the country, and published by the Funk & Wagnalls Co. Price per volume, 30 cents. Complete set of twenty volumes (ready about May 1, 1924), $6. The third five volumes have been received, and are as follows:

Love and Marriage; Normal Sex Relations. By T. W. Galloway, Ph. D., Litt. D.; Associate Director of Educational Measures. American Social Hygiene Association. Net, 30 cents per copy.

The Expectant Mother; Care of Her Health. By R. L. De Normandie, M. D.; Instructor in Obstetrics, Harvard Medical School. Net, 30 cents per copy.

Tuberculosis; Nature, Treatment, and Prevention. By Linsly R. Williams, M. D., Managing Director, National Tuberculosis Association. Net, 30 cents per copy.

Venereal Diseases; Their Medical, Nursing, and Community Aspects. By W. F. Snow, M. D., General Director, American Social Hygiene Association. Net, 30 cents per copy.

Diabetes. A Handbook for Physicians and Their Patients. By Philip Horowitz, M. D., with thirty-four text illustrations and two colored plates. Second edition, revised and enlarged. Paul B. Hoeber, Inc., New York, 1924.

Transactions of the American Proctologic Society. Twenty-fourth Annual Session, held at Hotel Alexandria, Los Angeles, June 22-23, 1923. New York: Paul B. Hoeber, Inc., 1924.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. Forty-second year, 1924. New York: William Wood & Co.

The Human Testis. Its Gross Anatomy, Histology, Physiology, Pathology, with particular reference to its Endocrinology, etc., . . . as well as the treatment of diseases of the testes and studies in testicular transplantation and the effects of the testicular secretions on the organism. By Max Thorex, M. D., Surgeon-in-Chief, American Hospital; Consulting Surgeon, Cook County Hospital, Chicago. 308 illustrations. Phialdelphia and London: J. B. Lippincott Company.

Two Lectures on Gastric and Duodenal Ulcer. A Record of Ten Years' Experience. By Sir Berkeley Moynihan, Leeds. Bristol: John Wright & Sons, Ltd., New York; William Wood & Co., 1923.

Operative Surgery. Covering the operative technic involved in the operations of general and special surgery. By Warren Stone Bickham, M. D., F. A. C. S.; former Surgeon in charge of General Surgery, Manhattan State Hospital, New York; former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original and separate Desk Index Volume. Volume 4 containing 842 pages with 772 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $10 per volume. Sold by subscription only. Index volume free.

Hospital Organization and Operation. By Frank E. Chapman, Director, Mount Sinai Hospital of Cleveland. New York: The Macmillan Company, 1924.

First Steps in Organizing a Hospital. An Exposition of Ideals and Principles Incident to the Inception and Organization of a Hospital. By Joseph J. Weber, M. A., Editor The Modern Hospital; formerly Executive Secretary, Committee on Hospitals, State Charities Aid Association of New York. New York: The Macmillan Company, 1924.

Hygiene and Public Health. By George M. Price, M. D., Director Joint Board of Sanitary Control; Director Union Health Center, New York City. Third edition, thoroughly revised. Lea & Febiger: Philadelphia and New York, 1924.

Dislocations and Joint Fractures. By Frederic J. Cotton, M. D., Visiting Surgeon to the Boston City Hospital; Associate in Surgery, Harvard Medical School. Second edition, reset. 745 pages with 1393 illustrations from drawings by the author. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $10 net.

Pathological Technique. A Practical Manual for Workers in Pathological Histology and Bacteriology, including directions for the performance of autopsies and for clinical diagnosis by laboratory methods. By Frank B. Mallory, M. D., Pathologist to the Boston City Hospital, and James B. Wright, M. D., Pathologist to the Massachusetts General Hospital and Assistant Professor of Pathology, Harvard Medical School. Eighth edition, revised and enlarged. Octavo of 666 pages with 180 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $6.50 net.

The Lane Lectures (by William Ophuls, M. D.)—The 1924 Lane Lectures were delivered in Lane Hall, San Francisco, by Doctor Ludwig Aschoff, Professor of Pathology of the University of Freiburg, Germany.

These lectures covered selected topics in pathology. In the first lecture, Professor Aschoff discussed the place of origin of the biliary pigment. He stated that there might be three points of origin for such pigment: (1) In the liver cells themselves; (2) in the reticulo-endothelial cells of the liver (Kupffer's cells); (3) in the blood stream. He pointed out (a) that there was no question that biliary pigment or substances very closely related to it could be formed directly from hemoglobin; (b) that there was some histological evidence showing that such pigment was developed in the Kupffer's cells, but that we had no direct evidence that the liver cells themselves were concerned in the production of the bile pigment, although they were the ones that normally secreted the bile pigment into the biliary capillaries. He also pointed out that there was no evidence to prove that without obstruction the stream of secretion toward the bile capillaries could ever be reversed in such a way that the bile pigment would be secreted on the outside of liver cells into the lymphatics or into the blood capillaries.

In his second lecture, he took up atherosclerosis and made a sharp distinction between simple atheroma and the secondary sclerosis which may follow atheroma, especially in the later years of life. He stated that atheromatous changes are quite common in young children, again in adolescence, and again later in life. The chief changes in ordinary atheroma are due to an imbibition of the intima with blood plasma, which leads to swelling and a deposit of fat, first in the interstitial tissue in the region of the stria terminalis, and later in the connective tissue cells of the intima. This simple infiltrative process is evidently reversible. If it occurs after a certain age, it is apt to be followed by permanent sclerotic changes.

In his third lecture, he took up ovulation and menstruation. He showed that the rupture of the ripe follicle is not due to congestion, but is due to a peculiar change in the connective tissue on the side where the follicle is to rupture. He also described how the ovum is at first situated on the side opposite to the later point of rupture, then approaches it more and more, and in the end is found a little laterally from this point. In speaking of the development of the corpus luteum, he described the corpus menstruale and the corpus gravidatis. The hemorrhage in the corpus menstruale does not occur immediately following the rupture of the follicle, but at the time of the subsequent menstruation. So far as the histological changes of the uterine mucous membrane in menstruation are concerned, he demonstrated microscopical pictures which showed the complete absence of a reticulum in the superficial layers of the mucous membrane shortly after menstruation, and a

progressive regeneration of this reticulum in the interval between the menstruations.

In his fourth lecture, he gave a careful description of the various stages in the development of the adrenal gland, and came to the conclusion that the main function of the adrenal cortex is that of regulating the lipoid metabolism of the body.

In his fifth lecture on fatty degeneration, he emphasized the chemical differences in these fatty deposits and how these chemical differences influence the physical and microscopical characteristics of the fatty substances. So far as the origin of these fatty materials is concerned, he showed that they might arise in either of three ways: (1) As a result of infiltration from the outside; (2) as a result of a liberation of fatty materials bound up with other substances and therefore, invisible microscopically; and (3) as a result of actual transformation of proteids or carbohydrates into fatty materials. He stated that it was still uncertain whether direct formation of fat by transformation of other substances ever occurred. He also stated that he believed that the liberation of fat from invisible fat-containing substances was relatively unimportant, and that in most cases the fat was carried to the cells from the outside.

The lectures were illustrated by diagrams and lantern slides. The course of lectures was very well attended, and seemed to arouse the interest of the audience. At the end of the first lecture, an informal reception was held in the reading-room of the Lane Medical Library.

The Lane Medical Lectures delivered by Professor Aschoff will be published by Paul B. Hoeber, 69 East Fifty-ninth street, New York City, together with other lectures which Professor Aschoff is delivering in various parts of the United States.

Immunologic Observations in Autumnal Hay-fever—Harry S. Bernton, Washington, D. C. (Journal A. M. A.), reports on eighty-nine patients who have received a prophylactic course of treatment with a pollen extract of the short ragweed. Of this number, thirty-six, or 40.4 per cent, have been practically free of symptoms, and five, or 5.6 per cent, have failed to derive any benefit. Forty-two of the eighty-nine patients have experienced premonitory or actual symptoms of hay-fever during the early period of the pollination of the giant ragweed, and before the beginning of the pollination of the short ragweed. The majority of those who have derived the least benefit from prophylactic treatment are included in this subgroup of forty-two patients. Comparative cutaneous tests with varying dilutions of giant and short ragweed extracts have been performed in sixty-five patients. A greater cutaneous sensitiveness to either pollen does not signify a greater sensitiveness of the nasal and conjunctival mucosa to the same pollen. Personal experiences by three competent observers indicate susceptibility to one species of ragweed and not to the other. Three patients whose history has suggested sensitiveness to the pollen of the giant ragweed have been given a course of desensitizing treatment with its protein solution. The local reactions at the site of subcutaneous injection have been marked at the beginning of treatment and negligible at the termination of treatment. Subsequent injections of smaller doses of pollen extract of the short ragweed have produced extensive local reaction. No hybrid forms of the two species of ragweeds ambrosia elatior and ambrosia trifida have been reported. From the clinical evidence, it appears that there is no chemical identity of the pollen proteins existing in the short and giant ragweeds. The cross-protection afforded by active immunization with the pollen protein of the short ragweed against the giant ragweed is nil in subjects very sensitive to the giant ragweed, and slight to those less sensitive. The addition of pollen extract of the giant ragweed in the preventive treatment is likely to afford autumnal hay-fever subjects greater protection and assure a greater freedom from symptoms.

Medical School News

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL

On May 14, 1924, at the California Memorial Stadium in Berkeley, the following candidates from the University of California Medical School received the degree of Doctor of Medicine:

Archibald Eli Amsbaugh, Rodney Fremont Atsatt, A. B., M. A.; Geoffrey Haslam Baxter, Edward Blair, A. B., M. A.; Hildreth Mosher Caldwell, A. B.; Alexander Clark Cameron, A. B.; Stuart Toussaint Davison, A. B.; Isabel May De Young, A. B.; Max Dunievitz, A. B.; Anna Lucile Elliott, A. B.; Alaude Edgar Emery, A. B.; Bertha Vivian Foler, A. B.; Harold Eugene Fraser, A. B.; Hervey King Graham, A. B.; Frank Kelsey Haight, A. B.; Matthew Newell Hosmer, Clark Moore Johnson, A. B.; Georgia Morris Krusich, Thomas Joseph Lennon, A. B.; Allen Kier McGrath, A. B.; Grace Mabel McKellips, A. B.; Lucille Ynez Brown May, Kenneth McCausland Metcalf, A. B.; Mildred Metzner, A. B.; Melville Laurence Montgomery, A. B., M. A.; Harold Abner Morse, A. B.; Madeline Ann Muldoon, A. B.; Leona Geierman Nightingale, A. B.; Carlyle Melville Pearce, A. B.; James Clarence Raphael, A. B.; Evelyn Board Raynolds, B. L., M. A.; George Henri Rohrbacher, A. B.; Harry Clare Shepardson, A. B., M. A.; Leonard William Skelton, A. B.; Jack Lorenz Stein, A. B.; Yoshiji Sugiyama, A. B.; Frances Ansley Torrey, A. B.; Morrell Emeric Vecki, A. B., M. A.; Dean McLaughlin Walker; Robertson Ward, A. B.; Allan Raymond Watson, A. B.; George Joseph Wood, A. B.

Dr. George Henry Faulkner Nuttall, a graduate of the University of California Medical School with the Class of 1884, Quick Professor of Biology, and Director of the Molteno Institute for Research in Parasitology, at Cambridge University, G. B., received the honorary degree of LL.D., in consideration of his achievements in Biology, Public Health, and Hygiene.

The following nurses, who have completed the combined five-year course in nursing, received the degree of Bachelor of Science and Certificate in Nursing:

Vivian Coats, Marian Elizabeth Derby, Esther Gustavia Gilkey, Louise McCain, Frances Elizabeth Morrison, Eleanor Elizabeth Reese, Bertha Lenora Stem, Eva Williamson.

The following, having completed the three years' course in the Nursing School, received the Certificate in Nursing:

Grace May Adams, Anna Beutel, Evangeline Hope Break, Dorothy Conrad, Alice Mary Coughlin, Dorothy Louise Crane, Ruth Davis, Frances Ada Dolman, Ruth Dovell, Beatrice Endest Drysdale, Dorothy Margaret Drysdale, Ruth Arlene Glass, Constance Daphne Heaton, Alice Ardeen Henry, Elsa Martina Johnson, Julie Jane Junkans, Eva Karpisek, Rosemary Kobes, Myrle Lord Lievsay, Mina Juanita Lucky, Lyndon Margaret McCarroll, Almeda MacKenzie, Madeline May Misch, Oril Anna Penney, Katherine Podhraski, Esther Amelia Rasmussen, Ellen May Stout, Eleanor Westendorf.

Promotions—Dr. Wallace B. Smith, Instructor in Otology, Rhinology, and Laryngology, has been promoted to the rank of Associate Clinical Professor of Otology, Rhinology, and Laryngology.

Dr. Lloyd Bryan, Instructor in Roentgenology, has been promoted to the rank of Assistant Clinical Professor of Roentgenology.

Gifts—The university has received the gift of $1000 from Mrs. J. B. Wright of San Francisco, given in memory of A. S. Baldwin, and to be used for the purchase of equipment for the eye clinic at the University Hospital.

A MEDICAL LEADER VISITS CALIFORNIA

By LANGLEY PORTER, San Francisco

Doctor Heinrich Finkelstein has come to San Francisco and gone. His visit was stimulating to all those who are interested in the management of infants whether they be sick or well.

Dr. Finkelstein's fame has run before him through the activities of his many pupils who have settled in different parts of the country. There is hardly a city of importance which does not claim at least two or three who have worked directly under Finkelstein at one time or another in the Kaiserin Frederick Agusta kinderhaus in Berlin.

The very original conceptions of nutrition and of the diseases due to perverted nutrition which the German savant has given the world during the past twenty years have wrought a revolution in our knowledge of how food is utilized and how malnutrition acts to bring about diseased states in infancy, so, naturally, Dr. Finkelstein's activities in San Francisco were devoted to the exposition of these views and to an elaboration of these ideas.

He arrived in San Francisco Friday, May 16, and remained here until Tuesday, May 20. During this time, he was most generous in giving himself to the physicians and to the public. For the profession, two most unusual clinics were held at The Children's Hospital, and it is to be regretted that force of circumstances prevented a greater advertisement of the fact, for many who would have been present were ignorant of the dates of the meetings which were arranged at very short notice.

The first clinic, held on Saturday morning, May 17, was devoted to a consideration of dystrophy and intoxication as they occur in the first months of life. Finkelstein presented a number of infants suffering from those conditions, to illustrate and emphasize his talk to the attending medical men and women. The chief message that he had to give was that such conditions are brought about through underfeeding; by underfeeding which has followed poor judgment on the parts of those engaged in the care of the patient, or by the inability of the children to accept sufficient food. He pointed out very clearly that the disturbance of the intermediary metabolism follows lack of sufficient water, and laid most of the evils which produce infection to this as a primary cause, stressing the fact, however, that the kidney and the liver both suffer severely from accumulated toxin when water in the tissues is insufficient to produce proper circulation, and, as a result, to the picture is added features dependent on renal and hepatic insufficiency. On the other hand, he gave as his opinion that dystrophy arose as a result of insufficient solids in the blood and in the body cells, and that the only remedy for this state of affairs was an increase in the food. He spoke very highly of Marriott's work and endorsed the use of concentrated lactic acid with a high percentage of added carbohydrate, in the treatment of such cases.

The Monday clinic was devoted, especially from the clinical side, to a disquisition on the disease known in this country as celiac disease, and a number of brilliant descriptions of the symptomatology, pathology, and etiology were given. Finkelstein believes that celiac disease is an expression of neuropathy, which bears heavily on the autonomic nervous system, the secretions of all the digestive glands are impaired and, in some instances, are more greatly interfered with than others, and as a result we have failures to split fats in one case; failures to dissolve proteins in another; and the inability to utilize carbohydrates in still another; with all degrees of combinations of these insufficiencies; as well as these primary faults, the failure of normal digestion leads to failures in metabolism, and many secondary poisonings occur which tend to give variety to clinical pictures of this very unusual condition. Cases of this disease were presented, and the clinical course discussed with a great deal of skill and with much enlightenment to the audience.

Dr. Finkelstein's most considerable contribution was in the form of a talk to physicians at the County Medical Society, when the savant gave an account of the disorders of nutrition in young infants. Naturally, the views expressed were original and based on his own observations and on knowledge developed during his long researches in this field. Many of the pronouncements were well known to the audience because of their widespread circulation through such medical literature as deals with the diseases of infants.

A public dinner tendered Dr. Finkelstein on the night of Saturday, May 17, was gratifyingly attended. Upwards of fifty men and women particularly interested in the subjects with which Finkelstein deals were present to do honor to the visitor. No shop talk was permitted. The occasion was treated purely as an opportunity for the San Francisco profession to meet Dr. Finkelstein. Several private dinners were also given at which Dr. Finkelstein was the guest of honor. Those privileged to be present found that the famous man was well worth meeting for quite other qualities than those which had helped him attain his fame. He left us with an appreciation of the fact that he is not only a great scientist, but that he himself has a character and intelligence very much beyond the ordinary. He is full of wit, diplomacy, well-developed information, and original philosophy.

Most of the medical profession who were privileged to hear him and to be with him have to express their deep gratitude to a number of friends, both medical and lay, who underwrote the necessary funds to bring Dr. Finkelstein to San Francisco.

At a public dinner tendered him, he expressed very beautifully his feelings about the United States, especially about the West. He said that when he returned to his home, whenever he saw an American flag, the blue of its ground would remind him of the blue skies of America and of the happiness that had been his under those blue skies, and each golden star would bring back to his mind the memory of some one of the many friends here.

The Relationship of Goiter to Mental Disorders—Harold L. Foss and J. Allen Jackson close an interesting discussion of this subject (Am. Jr. Med. Sciences, May) by saying: "The close observation of about 800 goiter cases coming to a general hospital for treatment and the simultaneous study of 50 goiter patients among 1700 inmates of a large hospital for the insane, both institutions in the same locality and drawing their patients from the same territory, lead us to draw the following conclusions: (1) That goiter is not, even in a goiterous district, especially common in the insane; rather the reverse, for its incidence in the State Hospital at Danville, Pa., is but 3 per cent. (2) Conversely, insanity is extremely rare among the large number of goiter patients applying for treatment in a general hospital in the same locality, there being no cases of true insanity among the 800 patients studied, the only mental disturbance being in the form of a mild excitement or rarely slight and transient mania, this in but two cases. (3) There is, apparently, no definite relationship between goiter and insanity, and surely nothing to indicate thyroidectomy in the treatment of the usual insane patient suffering from complicating goiter, unless for the relief of mechanical pressure. Operation, of course, may be indicated if there be accompanying evidences of true hyperthyroidism, but this latter condition is most rare. (4) Neither hyperthyroidism nor hypothyroidism occurs, except very rarely, among the adult goiter patients of the Pennsylvania hospitals for the insane, the greatest number of goiters being of the so-called multiple adenomatous or nodular forms and unaccompanied by systemic disturbance."

CASE REPORT

Three Normal Spontaneous Deliveries Following a Caesarean Section (reported by L. I. Kaffesieder and Emil Bogen, Los Angeles) — The following case, from the obstetric division of the Los Angeles General Hospital, will probably be of interest as to what is really the proper course to follow after a woman has had a Caesarean section. This case should be noted particularly, in that the labor was by no means easy, but one in which the uterine scar must have undergone intense strain.

The patient arrived in the hospital in active labor, and in agony with each pain. On physical examination we found that the eyes, ears, nose, and throat were apparently negative. The chest showed no pathology. The blood pressure was systolic 130, pulse pressure 50. The abdomen showed a large brownish scar extending from the umbilicus to the symphysis, and about two and a half centimeters wide. The scar was quite thin and the examining finger could pass through it, and almost through the uterine wall, so that the foetal parts could almost be grasped with the fingers. In other words, both scars were not very thick. Old striae gravidarum were present. The uterus was up to xiphoid process, and in a contraction would become of stony hardness. Pelvimetry revealed a slightly flattened pelvis, as indicated by the following measurements: Interspinous, 25 cm.; intercristal, 26 cm.; bitrochanteric, 31 cm.; external conjugate, 19 cm.

The child's back was found to the left of the mother, and the small parts anterior. The foetal heart rate was about 160, and in the lower left quadrant. The position, as evidenced by external palpation, was evidently a vertex posterior, and to the left. Rectal examination showed the cervix to be two fingers dilated; the head fixed, but not engaged. The remaining portion of the physical examination was negative.

The patient entered the hospital at 10:15 a. m. on April 30, 1924, and stated that she had been in active labor since 1 a. m. of the same day. The contractions were about every five minutes, and about fifty to sixty seconds in durations. She had had slight edema of the ankles, but no signs of any toxemia. For the last two nights she has had dysuria. Otherwise, she had no other complaints. No history of ruptured membranes.

Following our examination, the patient was given nitrous oxide analgesia, and with this labor progressed and the patient complained less. It was interesting to see the powerful contractions that the uterus would undergo, and we almost expected it to rupture during anyone. The head made steady progress, and the dilation increased, and we determined that she should be given a chance to deliver spontaneously. The contractions became exceedingly more powerful as labor progressed, and at 3:50 p. m. she delivered a normal male infant weighing eight pounds and ten ounces. There were no lacerations. The placenta was expressed by Baer's method.

The past history is as follows: The patient was married at seventeen, about seven years ago. One year after her marriage, on April 10, 1917, she was brought into the Columbia Hospital at San Jose, Calif., and was delivered there by Wayland of a five and one-half months premature infant, by Caesarean section. The infant lived only one hour. The reason for the section was placenta previa. A large gauze drain was left in the abdomen for six days, and twenty-one days after the operation she was discharged well.

The second pregnancy was in August, 1919. She was delivered spontaneously after a twenty-four-hour labor, by Vandelson, also at San Jose. The baby weighed eight pounds seven ounces. No operative work of any kind was done.

The third pregnancy, she was delivered by Wulgard of a nine-pound-fifteen-ounce baby, after a sixteen-hour difficult labor. A Caesarean was contemplated, but nothing was done. Both children are now living and well.

The last pregnancy dated from her last menstrual period, July 25, 1923. Foetal life felt about November. Otherwise this pregnancy proceeded normally, except for the slight edema mentioned previously.

The past history is otherwise negative. The family history contains nothing of note.

The urine examination was as follows: Clear, straw-colored, reaction of about Ph 6, albumin, one plus; blood, two plus; acetone negative. Microscopic showed blood, but no casts. This specimen was not catheterized, and the blood was probably a contamination.

This case brings up to discussion, when should a Caesarean section be done for the following pregnancies if a section was done for temporary pathology in the first? Should a woman who has had a section be given a test of labor, or should she be immediately operated upon as soon as she is at term?

NEW MEMBERS

Alameda County—Werner F. Hoyt.

Fresno County—G. C. Nedry.

Los Angeles County—Joseph T. Axline, R. Elsie Arbuthmot, Almina N. Cameron, G. A. Charlton, D. G. Gibbs, Benjamin Katz, W. J. Lakey, C. H. Lauder, Frank J. Meade, Thomas E. McGuire, Henry A. Rivin, A. A. Sornsen, Morris Stark, Earl M. Tarr, C. A. Trainor, John L. Wales.

Orange County—Lolita Flewelling.

San Francisco County—W. T. Davidson, Christie Peters, Emmet Taylor.

Santa Clara County—D. E. Tiffany, E. A. Turco, Kelly C. Canelo.

Siskiyou County—Cordes W. Ankele.

Ventura County—Harold B. Osborn.

TRANSFERRED

Robert A. Powers, from Santa Clara County to San Mateo County.

DEATHS

Cavanagh, Stephen Patrick. Died at Petaluma, May 20, 1924, age 55. Graduate of Cooper Medical College, San Francisco, 1893. Licensed in California, 1894. He was a member of the Marin County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Hoag, Ernest Bryant. Died at Los Angeles, June 11, 1924, age 56. Graduate of Northwestern University Medical School, Chicago, 1902. Licensed in California, 1903. He was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Magee, Irvin L. Died at Los Angeles, May 28, 1924, age 65. Graduate of Medical College of Ohio in 1883. Licensed in California, 1883. He was formerly a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

Richardson, William W. Died at Los Angeles, June 2, 1924, age 55. Graduate of the Northwestern University Medical School, Chicago, 1890. Licensed in California, 1905. He was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Compulsory Education—"Experience is beginning to demonstrate that compulsory education laws in this state as well as elsewhere are to be described more particularly as compulsory attendance laws," says the Standard, Eureka, Calif., editorially. "The uninspired boy or girl can be made to attend, but like the proverbial horse, it is an entirely different matter when it comes to drinking at the fount of knowledge. Despite the most earnest application on the part of the lawmakers and conscientious efforts of teachers and principals it is becoming apparent that there are a substantial number of young people in every community who can be made to absorb education up to a certain point, but no further. Manual training, courses in auto mechanics, business courses and similar devices are being offered to arouse the enthusiasm of the "citizens of tomorrow," but the general average of earnest response remains undisturbed.

Nephritis in Epidemic Encephalitis — Three cases are reported by A. E. Bennett, Philadelphia (Journal A. M. A.), mainly from the standpoint of the nephritis, which complicated in two instances acute encephalitis. chronic myoclonic uremia. and in the third case was a sequel of the disease. The two fatal cases of toxic infectious encephalitis (not epidemic), complicated by nephritis, illustrate the difficulties in differentiating epidemic encephalitis complicated with nephritis from chronic myoclonic uremia clinically as well as pathologically. In both cases there was a low grade neuroretinitis. Epidemic encephalitis is in some cases complicated by an acute nephritis, which may make the differential diagnosis with myoclonic uremia exceedingly difficult. The history, duration, fairly uniform neurologic findings, with repeated blood nitrogen studies (in uremia, urea nitrogen being almost invariably high, in encephalitis, going up only with the progression of the disease) should in most instances clear up the diagnosis, but in some cases it may be impossible to decide. The same bacterial cause of the infection in the central nervous system probably produces the kidney lesions. The prognosis is, of course, more grave in cases complicated by nephritis, and the treatment of the patient likewise altered. The possibility of nephritis occurring in acute encephalitis should be thought of and also that chronic nephritis may be a sequel. In seeking etiologic factors in the past medical history of chronic nephritides, it is suggested that inquiry be made for past encephalitic disease the same as we question our patients as to antecedent scarlatinal infection.

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Official Organ of the California, Nevada and Utah Medical Associations

Features of This Number

Proceedings of the Utah Medical Association Meeting, held at Logan, Utah, June 19, 20, 21.

Abstract of Proceedings of the Pacific Northwest Medical Association held at Vancouver, June 26, 27, 28.

Program of the Nevada Medical Association Annual Meeting, to be held at Bower's Mansion, Nevada, September 12, 13, 14.

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Volume XXII **AUGUST · 1924** *Number 8*

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VOL. XXII AUGUST, 1924 No. 8

ORIGINAL ARTICLES

RESPONSIBILITY FOR STATEMENTS AND CONCLUSIONS IN ORIGINAL ARTICLES

The author of an article appearing in the CALIFORNIA AND WESTERN MEDICINE *is entirely responsible for all statements and conclusions. These may or may not be in harmony with the views of the editorial staff. Furthermore, authors are largely responsible for the language and method of presenting their subjects. All manuscripts will be carefully read, but editorial privileges will be exercised only to a very limited extent. It is believed that the manner of presentation of any subject by any author determines to no small degree the value of his conclusions. Therefore, both the author and the reader, in our opinion, are entitled to have the subject as presented by the author as little disturbed as possible by the editors. However, the right to reduce or reject any article is always reserved.*

THE PRELIMINARY THYROID OPERATIONS*

By H. K. BONN, M. D., Los Angeles

A permanent arrest of thyrotoxicosis can only be secured by removing a sufficient part of the thyroid gland. If, judging by the intensity of the symptoms, we believe that a certain thyroid gland is secreting five times as much as normally, then four-fifths of the gland should be removed, the proportion remaining the same regardless of its size.

Since there is no accurate measure of functional estimation, one must rely upon experience and judgment as a guide as to how much gland should be removed. One is more justified perhaps in taking too much gland rather than not enough, since failure of cure results if not enough gland is removed. On the other hand, when too much has been taken the remaining gland, following the well-known physiologic law, will hypertrophy until a proper balance between the supply and demand of thyroid secretion is secured.

Many cases of thyrotoxicosis are first seen only when the disease is well established, and these cases uniformly present lesions of the heart, kidneys, and nervous system. In these advanced cases the patients are saturated with the toxin, and while a thyroidectomy shuts off the supply of this toxin at the source, the benefits of the operation do not occur at once, since quite some period of time is needed for the toxin to be eliminated. Hence, the ability of the patient to weather the first post-operative week usually determines the success of a thyroidectomy, done upon a patient saturated with thyroid toxins. If one fails to estimate correctly the degree of thyrotoxic saturation, or the ability of the excretory organs to eliminate these toxins, a too extensive surgical procedure results in disaster.

It is for these cases, who seek surgical aid late and at a time when thyroidectomy cannot be done safely, that the preliminary operations are suitable. It is seldom indeed that these preliminary operations cure, and such a result is not to be expected. The purpose of these types of surgical procedures is to attempt to improve the patient's condition to a point where a thyroidectomy can be performed with some degree of safety. In other words, the preliminary thyroid operations, as related to thyroidectomy, correspond to the first stage of a two-stage prostatectomy.

Further, a preliminary thyroid operation affords, by the amount of reaction shown, an index as to the possible margin of safety for a subsequent thyroidectomy. Kocher and C. H. Mayo and Crile do a large number of ligations, in proportion to the number of thyroidectomies, thus indicating their belief in the soundness of preliminary preparative procedures.

There is always the temptation to depend upon mastery of operative technique and the facile removal of the gland, which may result in possibly overlooking a concealed danger within the patient, namely, the exact degree of thyrotoxicosis, which factor may cause disaster, even though the work be done by a master.

For the average surgeon, and especially for those who are just beginning their thyroid surgery, a preliminary ligation or ligations in the exophthalmic and the toxic non-exophthalmic cases, produces safer results than a primary thyroidectomy. One is entitled to greater liberties and license in thyroidectomy only as one's experience is widened, thus permitting more correct evaluation of the patient's actual condition.

The mortality of the first series of all surgeons doing thyroidectomies is too high. This is not due to lack of operative dexterity, since those attracted to this field are usually proficient in other branches

* Presented before the Santa Barbara meeting of the Southern California Medical Association, April 4, 1924.

of surgery. This high mortality is due to failure to adopt an operative procedure in keeping with the status of the patient—that is, a thyroidectomy is done on a thyrotoxic patient who is not able to withstand such an extensive surgical assault because preliminary preparative operations have not been done.

The procedures most often used, and with which I have had a moderate experience, are: first, the polar ligation of Stamm and Jacobson; second, isolated ligation of the thyroid vessels; and third, the boiling water injection method of Porter. All of the above procedures may be used in preparing a patient for an ultimate thyroidectomy, although extensive boiling water injections render a thyroidectomy most difficult. If one polar ligation fails to put the patient in condition for thyroidectomy, one may add another ligation or ligature of the superior or inferior thyroid artery, building the patient up, step by step, until he is able to withstand a thyroidectomy. There are cases applying for relief who are unfit for either polar ligations or ligature of vessels or any type of surgical procedure, except possibly the boiling water injections.

Before briefly discussing these procedures there exist physiological facts and observations which have some bearing on this subject.

The vasomotor and secretory nerves of the thyroid penetrate into the thyroid by the same route as do its blood vessels. At the upper pole small branches of the external laryngeal nerve, which itself is a branch of the vagus, penetrate into the gland with the superior thyroid artery, as well as the sympathetic branches. At the inferior pole the nervous branches, reaching the thyroid gland in conjunction with the inferior thyroid artery, are mostly all of sympathetic origin. Briau states that these branches come from the superior middle and inferior cervical sympathetic ganglions and anastomose freely with the cardiac nerve branches of the vagus. It is found that the inferior laryngeal nerve sends directly to the thyroid gland a very few small fillets whose physiological function is not known.

It is accepted today that the branches of the superior laryngeal, penetrating the thyroid at its upper pole, are essentially vasodilatatory, as demonstrated by Frank and Hallion. Further, the irritation of the peripheral end of this nerve produces an increased secretion of the thyroid; consequently the external superior laryngeal is not only a vasodilatatory, but is also at the same time an excitosecretory nerve. The central irritation of the depressor nerve causes an intense vascularization of the thyroid through a reflex intermediary action of the external laryngeal nerve. Observers state that the action of the sympathetic branches are vasoconstrictory. Their division causes a hypersecretion of the thyroid parenchyma. If this is really so, then sympathectomy for Grave's disease is illogical, and some other explanation must be given of its favorable results in that condition (Crotti).

From the preceding it follows that ligations not only diminish the blood supply of the thyroid gland, but also, and at the same time, the thyroid is deprived of a certain portion of its nerve supply. In other words, ligations are actually angioneurotomies.

The polar ligation of the superior pole is to be made just before the entrance of the superior thyroid artery into the upper pole.

Under local anesthesia, a horizontal incision one-half to one inch in length, at the level of the top of the thyroid gland, divides the skin and platysma. The omohyoid and sternohyoid muscles are divided bluntly at their point of junction, in the same direction as their muscular fibres. The upper pole of the thyroid is then isolated and an aneurysm needle, carrying a doubled ligature, is swung around the upper pole and the two ligatures are tied, allowing a small space between them, through which severance is made of the thyroid vessels, running in a bit of thyroid tissue.

Polar ligation of the lower pole presents many more difficulties, due to the anatomic factors concerned, and since isolated ligation of the inferior thyroid artery offers less danger, it is to be preferred.

The presumed advantage of the polar ligation over isolated arterial ligation is severance of both artery and nerves, thus making an actual angioneurotomy. This advantage is a disputed point, though resting on a sound theoretical and physiologic basis. Polar ligation has the advantage that the pole of the gland is easily found.

The disadvantages of polar ligation are, that it may not be as effective as isolated arterial ligation, inasmuch as not infrequently the arterial branches enter the gland so low that polar ligation may fail to occlude all the blood supply. Again, due to the passage of the ligature carrier, more pain is occasioned and wounding of the veins of the gland may occur.

As regards the ligature material, chromic No. 1 is preferred, since silk or linen is usually expelled.

ISOLATED ARTERIAL LIGATION

Superior thyroid artery: there cannot be a fixed anatomic direction for the ligature of this vessel, due to the difference in length and shape of necks and the size and height of thyroid glands.

It is of the utmost importance to ligature the main vessel and not one of its branches, else the full benefit from the ligation will not be secured.

I prefer the following simple and practical technique: Draw an imaginary line vertically through the apex of the thyroid. Infiltrate with anesthetic solution directly across this line and half an inch above the apex of the thyroid. Incise skin and platysma one inch and a half, so the vertical line bisects the incision. The incision may be truly horizontal or slant in a skin crease. The platysma and underlying cervical fascia being out, the muscles are then separated in the direction of their fibres until the thyroid capsule is identified. If doubt exists, ask the patient to swallow. The capsule may be incised and a branch of the artery easily located. The pulsation of the large branch lying at the posterior border of the thyroid cartilage is apparent at this time, and tracing this branch to its point of origin, followed by ligature of the main trunk, completes the operation.

Several minor points assist materially in carrying out this surgical procedure. Preferably artificial light, carefully adjusted to the field of operation, plus

working in a room whose walls and ceilings are either of dark brown or of spinach green, as suggested by Sherman, is of an advantage. The preceding details are more necessary for the ligation of the inferior thyroid artery.

A bloodless field, obtained by using an excess of adrenalin, is necessary. To make the procedure painless, infiltrate the skin and all fascias, and likewise the sheath of the vessel, with the anesthetic solution. I prefer chromic catgut No. 1 for the ligature, since silk and linen are invariably expelled. The artery should not be divided, but ligatured in continuity. A small drain should be left in for a few days. I prefer the safety pins of Herff for closure of the skin incision to either sutures or skin slips.

The isolated ligation of the inferior thyroid artery presents many more technical difficulties than that of the superior, and the previously mentioned aids are especially in order for this surgical procedure, namely, correct lighting and a bloodless field.

Isolated ligation of the inferior thyroid artery inwardly of the carotid sheath appeals to me strongly. The technic is as follows: A horizontal incision two inches in length is made slightly below the level of the cricoid cartilage, the center of this incision to fall directly over the prominence of the sterno-mastoid muscle. Following division of skin and platysma, the fibres of the sterno-mastoid are separated, likewise the fibres of the sterno-thyroid. The thyroid capsule should then appear. During the separation of the fibres of these muscles the tendon of the omohyoid will likely be seen.

The thyroid is retracted inwardly and the common carotid artery separated and retracted outward. When the posterior surface of the artery is reached the pulsations of the inferior thyroid artery may be seen at the level of the cricoid cartilage. The inferior thyroid artery crosses inwardly, coming from behind the common carotid, about one cm. below the carotid tubercle of the sixth cervical vertebra. Ordinarily the recurrent laryngeal nerve lies directly behind the inferior thyroid artery, which crosses it on its inward transit. The inferior thyroid artery lies at a considerable depth from the skin. Not infrequently the sympathetic trunk and its cardiac branches are seen, and care should be taken that they are not injured.

Kocher and DeQuervain and many others make isolated arterial ligation a part of their technique, while Kausch does not. It is possible to ligate both the superior and inferior arteries on the same side through one incision, since they are actually not so far apart as one would think from studying anatomic plates. However, it is poor judgment to attempt to ligate both vessels at the first sitting. One vessel is sufficient for ligation as a beginning, as the reaction will be of aid in determining the actual condition of the patient.

THE BOILING WATER INJECTION METHOD OF PORTER

The boiling water injection of Porter into the gland destroys a portion of the secreting substance, which is eventually replaced by scar tissue, thus reducing thyroid secretion. This procedure will almost always give some degree of relief, and usually such relief appears quickly. It is questionable as to the degree of permanent benefit secured. According to Link, the use of this method should be limited to two classes of cases—those in whom a thyroidectomy is entirely out of the question, and those who have had all vessels ligatured and are still unfit for thyroidectomy. The principal reasons for limiting this procedure to these two classes are, that after its use the thyroid must literally be chiseled out of the neck, being held so tightly by adhesions, and further, the hemorrhage is usually severe.

When one injects boiling water into the thyroid, the idea should be to put as much of the gland out of commission as possible, consistent with the factors of safety.

TECHNIQUE

Local anesthesia is to be used and a one and one-half-inch incision is made in the middle of the usual collar incision for thyroidectomy. The gland is uncovered and from three to six drams of boiling water injected toward the upper pole and the same amount in the middle of the lobe and again in the lower pole. The water should be boiling and the pain at the time of the actual injection may be abolished by a few inhalations of gas. Link advises the use of three pairs of gloves—rubber, chamoisette, and rubber, to pick up the syringes of boiling water which lie at the bottom of the basin of boiling water.

CONCLUSIONS

The following conclusions, relative to the preliminary thyroid operations, are suggested by Crotti:

1. Ligations not only diminish the blood supply, and consequently the secreting power of the thyroid, but there ensues an atrophy of the territory deprived of the blood circulation, which atrophy is in direct proportion to the amount of blood supply suppressed.

2. Since the external laryngeal nerve has a marked vasodilatatory and excitosecretory action upon the thyroid, our efforts should be directed against this nerve. Hence, the polar ligation of the upper pole may be used, since such a ligation includes all the branches of division of the superior thyroid artery. This polar ligation should be an angioneurotomy—that is, a double ligation of the neurovascular pedicle followed by severance between the ligatures. In this manner all branches of the external laryngeal nerve are divided.

3. Where the status of the patient warrants a ligation only, polar ligation of the superior pole is the method of choice, for the reasons previously stated.

4. If the condition of the patient warrants a double ligation, ligation of the superior pole and isolated ligation of the inferior thyroid artery on the same side is to be chosen, based on the fact that anastomoses between the superior and inferior thyroids are numerous, while the bilateral anastomoses are not so well developed.

It is my observation that not infrequently one will find a small superior thyroid and a large inferior thyroid on one side and the exact reverse on the opposite side. Hence, Crotti's suggestions as to ligations and their order of sequence are subject to not infrequent anatomic anomalies.

5. For the same reasons as given in 4, Crotti suggests that if the upper pole has been previously

ligated, the next procedure should be ligation of the inferior thyroid of the same side.

6. If three ligations are performed in one or more than one sitting, one inferior thyroid should be left, to be finally ligated if deemed necessary.

7. Ligations of the four thyroid arteries, in one or more sittings, may be made without danger of necrosis or tetany, unless vascular anomalies exist, and this cannot, of course, be foretold.

I desire to acknowledge my indebtedness to the writings of G. Link in the preparation of this paper.

Westlake Professional Building.

DISCUSSION

Wallace I. Terry (380 Post Street, San Francisco)—As Doctor Bonn has emphasized, we have no exact means for determining the resistance of a patient with thyrotoxicosis to operation. The basal metabolic rate, a study of the heart and other organs aid us in our estimate, but there are other factors, particularly the psychic, which have a marked effect on resistance, and therein lies the great value of experience. It is in the bad risk cases and the doubtful ones that minor surgical procedures, especially ligations, should be done, and Doctor Bonn has carefully mapped out the important steps. I do feel, however, that the objections to boiling water injections outweigh their value and I prefer to insert minute capillary tubes containing radon (radium emanations) into the thyroid, as I have elsewhere described. I am convinced that the frequent employment of preliminary ligations in exophthalmic goiter cases has greatly reduced the mortality. These ligations may be performed under local or gas and oxygen analgesia. I do not use any epinephrin with the local anesthetic, for it can readily produce a marked reaction in Graves' disease—an exaggerated Goetsch test.

I have enjoyed listening to Doctor Bonn's excellent paper and, except for the two objections—boiling water and epinephrin—I heartily commend it.

Asa W. Collins (126 Post Street, San Francisco)—It is so difficult to determine the exact degree of thyrotoxicosis necessary to deter one from performing a primary thyroidectomy that it is easy to understand the various surgical methods recommended as preliminary measures.

Exophthalmic goiters are treacherous and very commonly we are agreeably or disagreeably surprised, as the case may be, with the condition of our patient on the table, and during the first post-operative week.

I have seen patients with grave toxic symptoms pass through the operation and recover, without a disturbing sign or symptom, and on the other hand a stormy post-operative convalescence may follow a supposedly good operative risk.

Each case must be carefully studied in order to judge of the results of an operation, and in this connection I wish to state that upon the length of time that the toxic symptoms have persisted I place a great deal of reliance in determining a prognosis.

I have practically given up ligation, but when necessary polar ligation is the one of choice on account of its rapidity under local anesthesia.

My routine is to place the patient in the hospital for a few days, ostensibly for observation and give gas anesthesia daily for two or three days, then "steal" the goiter.

My technic is to ligate the interior thyroid, then excise by working upward, leaving a piece of the upper lobe, using very few instruments and completing the operation as soon as possible.

I have never used the hot water injections, but believe they may be of service, notwithstanding the fact that I feel a growing tendency to excision in all cases.

Doctor Bonn has presented a splendid paper covering the subject admirably, and his conclusions are logical on a subject of great practical value to the surgeon.

A. B. Cooke, M. D. (606 South Hill Street, Los Angeles)—If iodine therapy for hyperthyroidism, as recently developed and recommended by Plummer, fulfills its present promise there will be little or no use for preliminary operations in future. I have employed it in a number of cases with the most gratifying results. Just why Lugol's solution should be more efficacious than other iodine preparations is not clear, but its power to transform a highly toxic case into a simple case in a very few days is little short of magical. Ligations and other preliminary procedures are intended, of course, merely to prepare the way for curative surgery. If the simple and relatively harmless plan of administering ten drops of Lugol's solution once a day does all that a ligation can do it is greatly to be preferred.

I do not like the boiling water injections and have never employed them. I have, however, used the quinine and urea hydrochloride injections for the same purpose and have been pleased with the procedure in selected cases. This agent, even in weak solution, acts in much the same way as boiling water and has none of the objections which attach to the latter.

Doctor Bonn's paper is to be commended as a thoughtful contribution to the always interesting goiter problem. I particularly appreciate his discussion of the innervation of the thyroid and the practical applications drawn from same.

Doctor Bonn (closing)—Hertzler has most quaintly said that "A goiter patient's history ends only with the patient's demise." I desire to express my appreciation of the generous, timely and instructive discussion accorded this paper.

SOME OBSERVATIONS ON HEALTH CONDITIONS IN NEVADA

By C. P. KNIGHT, U. S. P. H. Service
(From the Director, Division of Child Welfare, Nevada State Board of Health)

Comparatively few people, except of course the state, county, and municipal health authorities, have any intimate idea of the relationship existing between the United States Public Health Service and the constituted state health authorities. So intimately are the functions interwoven that it is often extremely difficult to decide just how far these two agencies can go and just where the authority of each begins and ends. In theory, this should lead to untold disputes, resulting in hampering of general health work, but in practice the public health service and the state health authorities have established such amicable relations and have such a thorough understanding that the task of dealing with health problems is simple.

The keynote of the whole broad scheme is active and thorough co-operation. The broad functions of the federal service are to prevent the entrance of disease into this country from foreign shores, to prevent the introduction and spread of disease from one state to another, to suppress epidemics, to investigate and study all diseases affecting mankind and to disseminate among the people information relative to the maintenance of health and the prevention of disease.

The division of scientific research of the service, which among its many functions has to do with state field investigations, is unique, in that a greater part of its labors has to do with the dissemination of health information among the public and not so much among scientists as is the function among similar bureaus of foreign countries. This division readily gives out the results of new methods, new discoveries, and new investigations by means of

printed pamphlets, newspaper articles, public lectures, radio broadcasts, and public demonstrations.

Having observed the work which was being carried on by the service in Utah, the officials of the Nevada Public Health Association made a request that the unit come to Nevada on completion of the Utah survey. On account of the existing policy of the service to co-operate with official agencies of the state, this association was referred to the State Board of Health. On request of the Governor of Nevada, our unit was detailed to Nevada in March, 1923, for the purpose of carrying on a co-operative survey of health conditions in the state.

Broadly speaking, the United States Public Health Service carries on investigations and the state and local authorities apply the results for the general betterment of health. Although, of course, much original research work has been carried on by state authorities, both agencies work together, however, and obtain maximum efficiency.

The intensive health work now being carried on among children is more or less the result of pioneer investigations carried on by the service. Some years ago investigations of the service showed that blindness among the new-born was becoming unduly prevalent, and issued a bulletin to that effect. Since that time laws have been enacted in every state requiring attention to the eyes of the new-born babies. In 1910 Scherewshy showed that simple home pasteurization of milk did reduce infant mortality. Stiles showed that a good deal of the so-called laziness of the people of the South was in reality hookworm disease. In his early investigations, Clark showed that trachoma was unduly prevalent among the school children of certain states, and as a result the service established the first hospitals for the exclusive treatment of this disease.

For over a score of years the service has, at the request of the state health authorities, carried on investigation in child health work in many states, and the writer has had the opportunity of carrying out complete health surveys in two states before coming to Nevada.

In the program for Nevada, the service proposed to carry on field investigation as to the prevalence of tuberculosis; it was also proposed to carry on a survey of child health conditions, namely, to obtain data relative to maternal and infant mortality; to make investigations relative to conditions among expectant mothers, infants and children of pre-school age; to study existing methods in vogue in school hygiene for the purpose of insuring standardization throughout the state. To establish health centers in certain districts, with the employment of public health nurses.

In co-operation with the Division of Child Welfare, State Board of Health, the Nevada Public Health Association, the Department of Public Instruction, the extension department of the state university, the State Medical Association, and other agencies, the work in the field has comprised three main projects—tuberculosis, child hygiene, and sanitary surveys of water and sewerage. Inasmuch as all health work centers in and about the child, a program with the following headings has been carried on in the counties which have been visited.

1. Holding of prenatal clinics and the distribution of prenatal letters.
2. Advisory clinics for infants and children of the pre-school age.
3. School hygiene consisting of physical examinations, special anthropometric measurements and advisory clinics with parents, relative to nutrition and the correction of remediable defects.
4. Fostering the modern health crusade or other methods of teaching health habits.
5. Investigations of tuberculosis among school children.
6. Sanitary surveys of water and sewerage in relation to infant morbidity.
7. A general health educational campaign.

Before beginning the survey in the field, studies of vital statistics bearing on the proposed investigations were made in the office of the State Board of Health. In regard to tuberculosis there were reported, for six years, 424 deaths. The number of cases reported were 429, or one plus case for each death. This shows clearly that tuberculosis cases are not being reported. For it is well known that we should expect to find at least eight cases for each death reported. Three questions enter this study: (1) Have the families of the deceased moved from the state? (2) Have they failed to consult a physician? (3) Have the physicians been negligent? From personal experience I can say that, relative to one county, question 1 can be answered in the affirmative. Not one family, of twenty-seven deaths, could be found in the town from which reports were received.

A study of the birth records were made for a period of three years; it was brought to light by our field investigations that birth registration is far from perfect in this state. This is accounted for by the fact that many communities are without any medical attention. Many deliveries being accomplished by husband or other relatives and no record whatsoever made. In certain counties I am told the birth is registered with the church, rather than with the board of health.

On April 15, 1923, the actual field investigations were begun. To date, three counties in the southern part of the state have been completed. Besides the regular survey, school hygiene demonstrations have been made in Carson, Minden, and Gardnerville, and other rural towns.

Clark County was chosen as the first county to be surveyed. The towns visited there were Las Vegas, St. Thomas, Overton, Koalen, Good Springs, Bunkerville, and Mesquite. In Lincoln County the following places have been visited: Pioche, Caliente, Alamo, Hiko, and Eagle Valley. In White Pine County, Ely, Baker, Kimberly, Ruth, McGill, Preston, and Lund.

In most of these towns, especially those far removed from medical attention, the condition of the children were found to be about the same as in other states. Among the pre-school children, 68 per cent were classed as under weight, while among the school children 59 per cent were 7 per cent or more under weight. This is due to two causes—errors in diet and the existence of remediable physical defects. Teeth defects prevail almost universally and

show the great need of dental attention in these smaller towns. In one town many cases of advanced pyorrhea were observed in even the very young. Tooth-brushes being quite rare, the writer was unable to obtain for himself a package of tooth paste from the local store. There is, too, a large prevalence of defective eyesight, which is remediable. There is quite a high percentage of enlarged and diseased tonsils and adenoids. In contrast to this in one town, which has ample medical attention, the condition among the children was an agreeable surprise. Much corrective work has been done. Excellent work in nutrition has been carried on by the extension department of the Nevada State University. Out of a group of 237, 137 were found to have good nutrition, while 22 were recorded as excellent, and the balance fair. This town is fortunate in having the services of five physicians and two dentists. A very interesting observation was made in one town as to eye condition. Trachoma was highly prevalent and ran entirely through certain families. The mothers have known about "sore eyes" for some time, but no medical aid was sought. Some were nearly blind, due to the long-standing cause. It is said that these families have been in close contact with Indians, and in some cases married among them.

SANITARY CONDITIONS

In quite a few of the towns and hamlets visited in Southern Nevada, living conditions are extremely primitive. The water supply in some is of the most crude type, running from its source through open, unprotected ditches, through the town ditches and gutters and there dipped and stored in containers, such as barrels, and used for drinking and culinary purposes. Piping water is rare, and even that offers no protections from pollution, as it is invariably piped from the open ditch. In some, cisterns are used for storage, but they are found to be crude and unsanitary, none having top protection, and the rope and bucket type being in use.

At some of the schools visited, the writer found the cistern open at the top and the common drinking cup in evidence. Most of the water comes from the mountain streams and is called "snow water" and thought to be quite pure, and, as expressed by some, "We dip early in the morning before the cattle have a chance to lay in it." Thus the danger—no thought being given to contamination by their fellow-man. One town, which I am told has ample means to finance a proper water system, has about the most unsafe supply thus far found. The source, a most delightful spring, is situated two miles from the center of the town. From there it runs in open course to a series of ditches traversing the town. Situated on this stream the writer counted and examined no less than five open privies, situated too close to the stream for safety.

SEWAGE DISPOSAL

The surface privy prevails with the usual amount of flies abounding. In discussing the sanitary needs, it was easy to gather that most of the women were awake to sanitary necessities, but it is difficult to persuade the majority of men that improvements are needed. The old argument prevails, "My father raised a family of five in this town and we are all healthy." They forget to mention the other five that were not raised. It developed that there is a yearly prevalence of infantile diarrhoea. What is the answer?

I have given a brief outline of the work being attempted. When it is finished valuable data will be available for the state. Public health is purchasable, but little progress is going to be made until the legislature appropriates sufficient funds to properly maintain a department of health. To date, the Division of Child Welfare has placed six nurses in the field for county public health work. These nurses are now doing follow-up work resulting from the survey. It is desirous that the physicians give these nurses their full co-operation, in the interest of community health.

In conclusion, the public health service aims to make such investigations and demonstrations as will tend to further activity on the part of the community, looking forward to permanency. It is the purpose of this service to stand back of and to build up all agencies in the state undertaking public health work. It is the desire of the service to leave a permanent health organization in every county visited. Success depends on the close co-operation between the citizens of the community.

DISCUSSION

Arthur J. Hood (Elko, Nev.)—There are few of us here who do not believe that the future advancement of medicine is closely associated with public health service. Knight, in the opening of his excellent paper, has told us the relations existing between the health departments of the state and the United States and that these two bodies in no sense conflict.

This correlation can be carried out still further. Let us start first, with the public health work as rendered in the public schools; second, that of the city and county; third, of the state, and finally that of the United States. Each group has a definite duty to perform. Each group has a definite duty to perform. Each one should prove of vast assistance to each of the others.

There is a word of caution to be uttered and one which I believe Knight would emphasize. The policies of each one of these departments should be honest and straightforward, without thought of exploitation to anyone concerned. To those who are familiar with the sometime intricacies of political health bodies of private and quasi-public health surveys, no explanation is necessary. Such procedures depreciate the value of the entire service rendered and lower the high standard which has been raised for our profession. It is possible when such conditions are found that a proper exposé by those with official authority would prevent their recurrence.

As a member of this society, I desire to congratulate and thank Knight for the splendid and honorable work he is doing for the welfare of the state of Nevada.

"No one will deny the boon of public care to those who are incapable of caring for themselves, but we may very properly challenge the theory that the first duty of society is to its unfit members, or that the normal man must be restrained from exercising self-control because the sub-normal man cannot control himself. It is highly illogical, deadly to initiative, and destructive to general morale to subject a whole people to the methods of institutional restraint because of a minority that cannot otherwise be restrained."—Midland Druggist and Pharmaceutical Review, November, 1923.

UNDESCENDED TESTICLE COMPLICATING ACUTE APPENDICITIS*

By MAXIMILIAN L. HERZIG, M. D., Seattle, Wash.

SUMMARY

1. Symptoms referable to compression of the spermatic cord and incarceration of right testicle, obscure the underlying pathologic changes occurring in the vermiform appendix.
2. Testicular underdevelopment and resulting subnormal cerebration.
3. Operative technique:
   (a) Pre-operative diagnosis: Incarceration of right testicle and possible perforative appendicitis.
   (b) Descent of right incarcerated testicle. Bassini closure.
   (c) Exploratory laparotomy: Intramuscular gridiron incision.
4. Operative findings:
   (a) Strangulation and incarceration of undescended right testicle and spermatic cord in inguinal canal.
   (b) Copious pus, free in peritoneal cavity. An adherent, sloughing, perforative, retrocecal appendix identified, left undisturbed and free drainage established.
5. Progress:
   (a) *Eventful* recovery from acute suppurative appendicitis following drainage of appendical focus.
   (b) Marked development following the operative descent of an incarcerated testicle in a backward boy, age twelve, who had a bilateral cryptorchism.

COMPLAINT

On April 23, 1923, I was summoned in a great hurry to attend a boy who was "having a cramp." Upon arrival, I was informed that I was too late; inasmuch as his "cramp" was over and he was "feeling better." In bed there lay a chap of about twelve years. His knees were flexed upon the abdomen, and he was bathed in cold perspiration. His temperature was 97, with a pulse rate of 100, which was regular and of good quality. The respiratory excursions were 25 per minute and costal.

INCARCERATION OF RIGHT TESTICLE

He is said to have had a similar, though less severe attack about six weeks ago, when his attendants concluded it to have been due to incarceration of his right testicle.

Upon inspection, the scrotal sac is seen to be empty and atrophied. Now, in this instance of bilateral cryptorchidism, we find the left testicle entirely absent from the scrotal sac and inguinal canal, while the right appears as a swelling, between the internal and external abdominal rings. There is a marked hyperemia about this region, and inflammatory changes are evident. He complains of an exquisite sensitiveness upon motion, and is most comfortable in the dorsal position with his knees somewhat flexed. Any attempt to extend, or even cause a greater degree of flexion of the thighs is accompanied by severe pain in the right inguinal region. Palpation reveals an almond-shaped mass, and on pressure gives the sensation of testicular pain. Above this, the abdomen is slightly distended. Percussion gives a tympanitic tone above, with dullness in the flank.

Percussion was executed under loud protest, on account of the attendant pain. There was present a marked degree of rigidity over the entire abdomen, which was most marked in the right lower quadrant, where it assumed the so-called board-like rigidity. There was also noted some tendnerness over the epigastric region, and pressure over the descending colon gave a painful sensation in the right iliac region. On palpation, the pain was most marked in the right lower quadrant, with the greatest sensitiveness, however, in the right inguinal region. Rectal examination was very painful and revealed the greatest sensitiveness in the right internal iliac fossa.

PHYSICAL EXAMINATION

The head is of normal size and shape. The lower jaw is dwarfed, and the teeth crowded together in an irregular manner. The neck is smaller than usual, but there are no glandular enlargements and venous pulsations are not present. His lips are anemic, the tongue is coated, dry, and there is no unusual aroma from his breath. The palate, fauces, and pharynx are O. K., and the tonsile out. The pupils are regular in outline, but respond sluggishly to the light. The thorax is symmetrical, and the respiratory system appears normal. The heart is normal in outline as to size and shape, and the apex beat is in the normal location. The skin is moist and cool and has the appearance of clay, except in the right inguinal region, where it is hyperaemic, and presents evidence of inflammatory changes.

TESTICULAR AND MENTAL UNDERDEVELOPMENT

The patient appeared stupid, and his intellectual development was so retarded that, after a prolonged stay in the lowest grades, his parent was compelled to withdraw him from the public schools. This genital reflex, from the testicular underdevelopment, with the resulting endocrine hypofunction, manifests its morbidity in the distortion of the cerebral equasion. The increasing impotence, attendant upon such an unrelieved (though remedial) condition, need not here be dwelt upon. Or, to invoke the bon mot of the counsellor—*Res ipsa loquitur.*

FAMILY HISTORY

His mother died at the age of thirty-three, when he was seven years old. The cause of her death is unknown, except that she became paralytic nine days previously. His father is alive and well, and this child has one brother, age five, who enjoys a normal physical and mental development. His uncles and aunts are in good health, and his parents are not near nor distant relatives. The family history is stated to be negative to lues, cancer, diabetes, gout, rheumatism, and T. B. His blood pressure was 130 systolic and 80 mm. of hg. diastolic. His height was about 5 feet and weight 110 pounds, which is an increase over any previous weight. He has had

*Presented at the annual meeting of the Nevada Medical Association, Reno, September, 1923.

the ordinary diseases of childhood, and an attack similar to his present complaint about six weeks ago.

LABORATORY FINDINGS

The important features in the laboratory examination are a leukopenia with a high polymorphonuclear count; and the present hematogenous albuminuria.

DIFFERENTIAL DIAGNOSIS

The questions to be determined are manifestly these: What relation, if any, have the present symptoms to the findings of the attendants upon his previous, similar attack? Do they differ, and if so, wherein? Let us analyze the salient points in the present history and physical findings. In the first instance, I can concur fully in the findings of the attendants upon his first attack, because of the obvious bilateral cryptorchidism and the retention of his right testis in the inguinal canal. This testicle has never been observed to have descended lower in its course at any previous time.

Further points in favor of such a diagnosis are:

1. The lack of a rise in temperature.
2. Normal pulse rate.
3. Absence of nausea, vomiting or diarrhoea.
4. Moreover, the history is negative as regards constipation, the great forerunner of appendicitis.

However, what I cannot pass over without concern is:

(a) The continued abdominal rigidity, after the storm had apparently subsided subjectively.

(b) The pain elicited on palpation of the right lower quadrant.

(c) The tympani of the uppermost portion of the abdomen when in the dorsal position, accompanied by dullness in the flank, which changes upon assuming an altered position.

(d) The extreme tenderness in the region of the appendix on rectal.

(e) The blood picture and urinary findings are significant of something other than an exacerbation due to his testicular anomaly.

All of which seem unwarranted by an attack of testicular colic, which is said to resemble in all respects his previous attack, except (it is explained) that he did not "get over" his last attack as soon as in this instance.

ATYPICAL APPENDICITIS TERMINATING IN PERFORATION

The case in point brings to my memory two atypical cases of appendicitis, one occurring in an infant that died from acute suppurative appendicitis, which, had it been given the benefit of early operative interference, may have had a chance for recovery. But the parents—in an attempt to avoid visitation by the physician—consulted him repeatedly over the telephone. The consequence was that the child was being treated for "having swallowed a pebble" during their stay at the beach, while the causative factor was not disclosed until after the appendix had ruptured, when I was called on the telephone at 5 o'clock in the morning and told that they were bringing a child who was found in a faint when the parent awoke.

Upon inspection, the child was found to be cold and clammy. Its respirations were stertorous, the abdomen greatly distended, and the pulse imperceptible. . . ."Doctor! *Do something*!"

Where are the faithful patients of not so long ago, when all Hippocratean disciples were able to acquire and practice the untrammeled healing art and whose only law was the welfare of the abiding patient? Oh, where, the revered masterful clinician, whose precept was nurtured in the clinical school; that superarrogate gentleman, whose kindly touch would tone the fading pulse. . . . He is not being emulated of late. Instead, he is "legally" superceded by the superarrogant hypocritical skylarks who would imitate the Deity, and with the support of the stolid politician are enabled to mulct the puny in body and soul, while the clinical picture darkens. Then, before the curtains fall, won't you please enter, Oh, Hippocrates, with your oldtime precept—"Medicenae Doctor."

The abdomen was opened a little after I had dismissed them. *"Belly full of pus!"* The poor thing expired for want of the timely recognition and appropriate treatment by the practitioner, who should have been afforded personal charge in the first instance rather than have been superseded by the tyro.

ON TWENTIETH CENTURY VAGARIES

The other case in point was that of a man, age sixty-five, who had an inguinal hernia that simulated the present case in some of its manifestations. When I arrived he was resting in comparative comfort after he had experienced the severest *"catch"* from his rupture, the history of which dates back to when he was in his twenties. Meanwhile, he had seen and followed such enlightening slogans as "Try Your Druggist First." "If You Seek Health for Your Wife, Swallow the All-Powerful Pynkyham Fore-Mule — Ah!" "It Gets You While You Sleep." Chorus: "Keep Smiling," for this is Barnum's Golden Age, *featuring* Epiddyism's, Heathen Mockery on Christianity and Science.

After his habitual use of somebody's "Natur's Rummydies," of which he had taken a double potion the day before, my man was now feeling easier. He had had a chill and collapsed, following which I arrived, finding him with a hernia that reduces easily through a rent in the abdominal wall, which was the obliterated inguinal canal. His abdomen was scaphoid, but extremely rigid and unyielding to the palpating hand. His temperature was 96.2, pulse rate 68 and intermittent. Upon rectal examination he was most tender in the region of the appendix.

Operation disclosed a ruptured gangrenous appendix, surrounded by a well-organized network of adhesions, with a small quantity of pus present upon opening the abdomen. Removal of the appendix and drainage was followed by prompt recovery.

OPERATIVE TREATMENT

From such as the foregoing and other experiences with the elusive appendix vermiformis, I approach the border-line cases with extreme caution and respect. And as Deaver has aptly remarked, "We must be able to recognize the surgical abdomen, and then when we are in it we can look for the trouble. So, mindful of the possibilities in this present instance, my pre-operative diagnosis was, undescended

right testicle with strangulation of the cord and possible ruptured appendix.

Upon operation, at the Providence Hospital, I found the testicle and cord in the right inguinal canal strangulated from pressure, owing to rigidity of the abdominal musculature. The gland and its structures were freed, and fixed in the scrotum. Then followed an exploratory laparotomy. Much free pus escaped on penetrating the peritoneal cavity, and an adherent, sloughing, ruptured, retrocecal appendix was identified, but left undisturbed. A cigaret drain and a soft rubber glove were carried down to the appendix and into the pelvis for drainage. His respirations were rapid and shallow throughout the operations, which were executed under ether anesthesia.

RECOVERY NOT UNEVENTFUL

The progress was uneventful until the fourteenth day, when the temperature rose to 101, with a leukocyte count of 22,000. There was abdominal distension, with the wound not draining much, and no results from the enemas. Next day the patient was running a septic temperature. On probing the wound, with the gloved finger, pus welled up, and a cigaret drain was inserted. Two days later—the seventeenth day—the patient had a scarlet rash on the neck, chest, back, and limbs. Isolation. Six days later, drain removed. General condition now appears normal. May sit up with back-rest support. May 26 recovery and home, following which he showed marked mental improvement, with a notable development in the right testis.

CONCLUSIONS

In concluding, I wish to emphasize:

1. The necessity of a diligent and timely search for an appendiceal focus in a patient presenting atypical abdominal symptomatology involving structures other than the vermiform appendix.

2. The advisability of early operative measures when indicated, as in the cases above cited. For, had this undescended gland been given the advantages of timely operation, the early mental growth of this patient would have been enhanced. Thus, would have this grave complication—perforative appendicitis—been recognized early and avoided ere it had gone on to suppuration and perforation, thereby greatly minimizing the hazards to life and health.

Fremont Avenue and North Forty-third Street.

Adiposis Dolorosa, 300 B. C. — Leroy Crummer, Omaha (Journal A. M. A.), publishes pictures of a terra cotta grotesque of a case of adiposis dolorosa that he believes dates back to 300 B. C. He is convinced that it is a votive offering. These votive offerings afford evidence concerning the peculiar mixture of belief and superstition, and of dependence, which is always the determining factor in the relationship between physician and patient. This figure is of a period when the classical style in modeling had yielded to a more naturalistic form. The donorium illustrated here was found at Athens in the excavations of 1914, and has been ascribed to the third century before Christ. It is a pure terra cotta, is polychrome, and stands 12 cm. high. It is a perfectly typical reproduction of a case of adiposis dolorosa. Crummer assumes that this effigy was made and sent in the form of a petition to the gods of health rather than as an expression of thankfulness for relief of the symptoms. A similar clinical case is cited to bring to mind the motivation for the modeling of this old grotesque.

DIAGNOSIS AND TREATMENT OF CHRONIC ETHMOIDAL CONDITIONS *

By HARVARD McNAUGHT, San Francisco

The diagnosis of chronic inflammatory conditions of the ethmoidal labyrinth is, I believe, more frequently overlooked than that of any other sinus, with the possible exception of the sphenoid, and this must serve as my apology for presenting the subject to you. There are many reasons for this, apart from lack of knowledge. Chief among these are:

First. It may require several examinations and a prolonged period of observation to establish the diagnosis in some cases, and many men are not willing to devote their time.

Second. Some men practicing our specialty have never developed the faculty of observing minute changes from the normal, and this is frequently a sine qua non in ascertaining the condition of this field.

Third. That the diagnosis of some conditions depends almost entirely on the associated symptoms or systemic reactions, and not on macroscopic changes in the nose.

In order to systematize the discussion of this subject, it may be well to consider the inflammatory processes in the ethmoid labyrinth under two heads:

1. Chronic Catarrhal Inflammation (Hyperplastic Ethmoiditis).

2. Chronic Suppurative Inflammation (Empyema).

CHRONIC CATARRHAL CONDITION

On examination, the nose may show nothing pathological in the ethmoid region except, perhaps, a hypertrophy of the middle turbinate. There is frequently a deflected septum, for this is usually the starting point for chronic sinus infections. The patient, however, gives a history of very frequent coryzas, possibly frequent headaches in the region of the nasal base, above and below the eyes, often radiating to the temples. The headaches are not constant. The pain is often severe enough to resemble an idiopathic neuralgia. There is a feeling of fullness in the upper part of the nose, and not infrequently the patient complains of pressure within the eyes. A unilateral granular pharyngitis in one-sided ethmoiditis is frequently present, which is bilateral when both sides are affected. This is due to the irritating post-nasal discharge, and affects the chain of glands behind the posterior pillars. This discharge is characteristic, being of a pale straw color, thin, and watery. It is often irritating to the skin, and may become purulent during acute exacerbations. Other symptoms in the absence of other known factors should lead us to suspect ethmoids. Among these are scotoma, retro-bulbar neuritis, irido-cyclitis, iritis, neuralgic pains in the bulb, ciliary neuralgia, photophobia, hyperaema of the conjunctiva, edema of the eyelids, and periorbital tissues. Asthma is the most common bronchial affection occurring with hyperplastic ethmoiditis, and in

* Chairman's address, Section on Eye, Ear, Nose and Throat Section at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May, 1924.

absence of any other known causative condition, our attention should be directed to the ethmoids.

However, it may be said that most cases under this classification present some objective findings if carefully searched for. Often if the middle turbinate be infracted toward the septum, the outer wall may be seen to be covered with polyp buds or a general polpoid swelling of the mucosa exists. This polypoid condition may also be seen over the bulla and in the hiatis semilunaris. The bulla on the affected side may often be much enlarged, and should always be compared with the sound side. In the more advanced cases there may be large polypi, which occur mainly on the anterior end of the middle turbinate, along the uncinate process or in the region of the bulla. When the posterior ethmoid cells are affected, the posterior tip of the middle turbinate may frequently be seen by posterior rhinoscopy to be polypoid. In my experience, x-ray examination has not been of much help as a diagnostic measure. I would not open a sinus on the x-ray findings alone, nor would a negative picture prevent my operating one where the clinical findings were positive. They are of value in showing the extent of the sinuses. Suction as a diagnostic aid in this condition is not of value, and may even be misleading, as serum may be withdrawn from the normal mucosa.

SECOND CLASSIFICATION

Chronic suppuration in the ethmoids may be open or latent. The condition is not common, and is usually associated with an empyema of one of the larger cavities. When there is free drainage of the pus, few systemic or local symptoms may be found apart from the local discharge. However, when some condition supervenes which blocks the drainage, the symptoms may be distressing. Severe headache centering over the root of the nose, over the vertex, or radiating downward into the mastoid processes, may occur. Of course, with the presence of pus in the nose, it is a comparatively easy matter, by exclusion, to ascertain that it comes from the ethmoids. The closed or latent form occurs when the drainage is obstructed. The most common places for such collections to form are the anterior end of the middle turbinate, the whole middle turbinate, the bulla ethmoidalis, the posterior ethmoidal cells. The differential diagnosis of this condition is frequently not made until the part affected is opened. In the chronic purulent condition, a mucocele or pyocele may form. A mucocele is made evident by the slow swelling occurring in the superior internal portion of the orbital cavity, which exhibits no signs of inflammation. A pyocele is of more rapid growth and marked by tenderness, fluctuations, and severe orbital complications. Puncture of a mucocele shows a thick sterile mucoid substance, while the pyocele contains pus.

TREATMENT

If the diseased process is confined to the anterior ethmoid cells, and if not of too long duration, a cure may sometimes be brought about by a resection of the anterior end of the middle turbinate, together with a correction of the septal deflection which almost invariably goes with it. In more extensive and older cases, a complete exenteration of all ethmoid cells is called for, with the removal of the middle turbinate. If the middle turbinate is left, I have found that it is practically impossible to keep the drainage free for a long enough period to cure the case. Granulations and adhesions keep forming and blocking the region. If part of the turbinate is left, it rapidly enlarges until it becomes obstructive to drainage or aeration, and has to be removed. Moreover, not so infrequently a large congenital cell occupies the middle turbinate and could conceivably keep up the trouble if left. I have never seen a dry nose or a pharyngitis sicca result from a middle turbinectomy. I believe that the tonsils should be removed in these cases, and adenoids if present. They are a contributory cause to hyperplasia and reinfection of the nose.

Suction as treatment for chronic conditions, I cannot from my own reasoning or experience endorse. If daily washing out a chronic antrum will not cure it, how can sucking the secretion from the ethmoids cure them?

Vaccines have not been of any apparent service in my hands, though given an extended trial. Possibly, the future development of this therapy may give us some real aid.

Washes, sprays, and applications, I mention only to condemn. They cannot, by any possible means, have any curative action and may do harm.

Systemic treatment as yet has not been of use to us in this condition. However, work is being done which may lead us to use systemic measures along with our nasal ones. Recent studies in feeding rats on a diet deficient in fat-soluble vitamin A seem to show that a lack of this substance lowers the resistance of the organism to infections, and in the case of the rats, all nasal sinuses and ears were found to contain pus. A deficiency of blood calcium, according to recent work, would seem to act in a similar manner. In all chronic infections, there is a deficiency of calcium salts in the blood. This may be raised in various ways. One of these consists in the administration of parathyroid gland. Systemic conditions should, of course, be attended to, which might delay healing such as lues, diabetes, etc. However much may be achieved in the future in the way of systemic treatment, I feel certain that surgery will always play a leading part in the cure of these conditions.

In conclusion, I wish to stress the point that many hyperplastic ethmoid conditions are diagnosed on the clinical symptoms, and will be missed if gross changes in the nose be the only guide.

Two case reports follow which illustrate the difficulties in the diagnosis of some hyperplastic conditions:

Case 1—Major B., age 38, ordnance department U. S. A.

Past history — Has had asthma since childhood. Does not get two out of seven full night's sleep on that account. Has been examined by a number of specialists who said his nose was normal, in regard to sinus infection. Was tested out for various proteids and found to react to a number of foods, house dust, and feathers. Frequent bronchitis, always starting as a rhinitis.

Examination—Septum deviated to right, high up. Space both sides, poor; no pus; naso-pharynx, negative; tonsils, hypertrophied; pus expressed. Patient

said that when he was on his holidays and worked in the open air in his garden he seldom had an attack, and could eat the proscribed foods with impunity; but as soon as he went back to his work, which necessitated traveling by train and staying at various hotels, the attacks began again.

I came to the conclusion that the asthma was of bacterial proteid origin, and that there was a chronic ethmoiditis in spite of negative x-ray findings from the following clinical observations:

1. Frequent rhinitis with water discharge.

2. Asthma which frequently is induced by chronic ethmoiditis.

3. The fact that his asthma improved when he worked in the open air and that he could eat the proscribed food at such a time. It appeared to me that if his asthma was of food origin that change of environment would not have affected it, but that if it was chiefly bacterial it might easily do so. This might be explained by an improvement in his general health, which raised his resistance to the bacteria.

Treatment—His tonsils were first removed. Later, the septum was straightened, both ethmoid labyrinths completely exenterated, and both sphenoids opened. The ethmoids were filled with polyps on both sides and the mucous membrane of the sphenoids polypoid. An autogenous vaccine was made from the ethmoid material and administered by Dr. A. C. Reed, who had referred the case to me. The patient has since had only a few transient attacks of asthma, and feels better physically and mentally than he has in twenty years.

Case 2—Mr. G. M. J., age 48, referred by Dr. A. C. Reed.

Past history—About two years ago, began to have what he thought was a chronic cold with pains behind the eyes; no pus, but an irritating watery discharge. Six months later, began to have violent and frequent sneezing spells. Six months later, asthmatic attacks began. He went to a specialist in his city who removed the tonsils without benefiting his asthma. When I saw him, the findings were as follows: Septum deviated to the right. Both middle turbinates were hyperplastic and in contact with the septum. No pus either side; naso-pharynx, negative; tonsils removed. The x-ray findings were negative for sinus infection. The diagnosis was made of chronic ethmoiditis and sphenoiditis, on the following grounds:

1. The trouble began in the nose.
2. The character of the discharge, thin, watery.
3. Asthmatic condition.
4. Did not react to food and other proteids, but did to certain bacterial proteids.

Treatment—Submucous septum resection, ethmoid and sphenoid exenteration on both sides. The ethmoids were full of small polypi and serous fluid. An autogenous vaccine was made and administered, with the result that the patient has been free from colds, sneezing, and asthma for over four years and has gained fifty-two pounds in weight.

135 Stockton Street.

"'The more corrupt the State, the more numerous the laws.' This is a free rendering of an observation by Tacitus nearly 2000 years ago, as he watched the vain attempts to check the decadence of the Roman people by multiplying edicts and statutes, and observation confirmed by every student of jurisprudence since his day, and abundantly confirmed by our own experience. We not only lead the world in the quantity production of laws, but also in breaking them. The British Parliament is said to enact an average of about 150 new laws annually while our Congress and State Legislatures are estimated to produce from 3000 to 15,000 new enactments during each legislative session."—J. H. Beal, Midland Druggist and Pharmaceutical Review.

INDUSTRIAL SURGERY AS A SPECIALTY*

By ALBERT W. MOORE, M. D., Los Angeles

To specialize in industrial surgery, one must have three qualifications to be successful.

He must be a good general surgeon. He must have an understanding of and be well versed in medical jurisprudence. He must have the faculty of understanding human nature.

The class of work which falls into the hands of the industrial surgeon varies from minor injuries to major operations which require instant care. In reviewing the many hundreds of cases which I have handled in the past years, the necessity of proper first-aid treatment has impressed me most emphatically. It has not always been my fortune to see a patient when first injured; but in many instances it has been my misfortune to have patients referred to me after improper first aid has been rendered. It is surprising to me, and no doubt to you, to note the numbers of good surgeons who do not know how to treat and give the after care of infections which have passed the stage of localized infection.

This subject is being taken up in a general way, because I feel that each individual case must be treated individually. We must go carefully into the man's history, as to his family, and his previous infections, their involvement and extent. It is very difficult in many instances to obtain a definite history from the injured; and it is at times necessary to repeat at daily visits questions which may be vital to the patient's interests.

A great many employes view with suspicion the so-called "company surgeon"; and it is very important for all concerned that confidence be established as early as possible. Confidence in the surgeon goes a long way in insuring a rapid recovery of the injured; because if confidence is assured the surgeon's orders will be followed in every detail. If confidence is not felt, the advice of others will be taken, which will conflict with your treatment, and the same will not be carried out.

It has been my practice to order to a hospital such patients as in my own opinion require a better acquaintance and a more thorough understanding between patient and surgeon. By so doing, I feel that in a great many instances minor injuries have remained as such, and serious complications have been avoided. To be a successful industrial surgeon, one must be honest. He must be honest with himself; he must be honest with employer and employe; and he must be honest with the insurance carrier. If a surgeon deviates from this policy of honesty, he is lost. Possibly he may be dishonest for a while, but not for long; because he will be found out, and when confidence is destroyed the surgeon's influence is gone. To be a successful industrial surgeon, one must like his work. He must not allow criticism to affect his good judgment as to the care of his patient. Surgery, if properly handled, is, in my opinion, a great science; but if the surgeon lacks judgment, even if he be most sucuessful with the knife, his end-results will not be the best.

* Presented to the Section on Industrial Medicine and Surgery at the Fifty-Second Annual Session of the California Medical Association, San Francisco, June, 1923.

In head injuries, questionable internal injuries and fractured bones, careful consideration should be given and a thorough study of the patient should be made before finally resorting to surgery. All palliative measures, with proper treatment, should be resorted to before deciding to use the knife. I believe that early surgical interference, most especially in head injuries, has hastened the death of many injured persons who would have been saved by palliative treatment. Open operations for fractures should be avoided until all other procedure has failed. Internal injuries should be treated expectantly until a definite diagnosis has been made; and then time should be allowed for the patient to recover from the shock of the injury.

The great difficulty which confronts the industrial surgeon is the interference by friends of the injured party. They seem to spring up from every angle. They are eager to give advice as to the treatment, and to recommend other doctors who can treat the case just a bit better than you. This advice, in some instances, breeds doubt in the minds of the injured man and his family, and naturally makes the care of the case more difficult for the surgeon in charge. It has been my policy to meet this contingency by suggesting that the family doctor be called in consultation, and by this method many future troubles are avoided. Do not misunderstand me, as I feel that consultation should be had on all doubtful cases, and on my part consultation is always most welcome. A word here, with proper advice, is very welcome and oftentimes is of great value.

Medical jurisprudence to most physicians and surgeons is abhorrent; and the thought of being summoned to the expert witness chair is a nightmare to the majority. To the most learned, the witness chair is at times not the most pleasant place; yet, I feel that no one need have any fear if he tells the truth as to the facts. The cross-examination will take care of itself. In my many years of experience in this line, I have seen many a professional witness break down, because, in my own mind, he was telling things which were contrary to his own belief and good judgment. Expert testimony, in my opinion, has been greatly abused by our profession; and it is my belief that bought testimony has made our profession the laughing stock of the public. The jury is made up of laymen, and how can we expect them to believe us when experts on opposite sides tell conflicting stories as to conditions which should be medical facts?

My experience with insurance carriers has been that they want the facts told in an honest way, neither enlarging upon them or belittling them. I would rather be honest and lose than to be dishonest and win. The human mind is most wonderfully and delicately made. Its consistency is variable; and the mind of one human being differs in range and quality from another, as a delicate piece of machinery differs from one which is more cumbersome. One machine acts to record facts, most delicate and intricate. Another acts in its own boisterous way, yet accomplishes the purpose for which it was made. So with the human mind. One keen and sensitive, easily disturbed. The other slow and insensitive, not affected by certain surroundings. The competent industrial surgeon must know instantly how to approach the one or the other. The first contact with either of the two different types may mean a great deal toward confidence, which must be early instilled if the end-result is to be the best. The industrial surgeon must please the injured; he must satisfy the employer; and the insurance carrier must not be forgotten. The Industrial Accident Commission, the court of last resort, must be satisfied as to the proper care and extent of injuries. All of these lead back to the industrial surgeon, and upon his shoulders fall the responsibilities, the greatness of which no one realizes as well as the surgeon himself.

To successfully handle industrial surgery, one's office must be well equipped. He must have a complete x-ray outfit, with facilities for developing his pictures. He must be prepared to properly handle cases which require baking and massage; and he must have a complete physiotherapy outfit for use where such treatment is essential. The Tait-McKenzie outfit for occupational therapy is of great value. One may have all of the above facilities; but without an efficient office force the means for handling these cases are of but little value. In the practice of general medicine or surgery, so long as one is ethical, he may pursue his profession with little or no interference. In industrial medicine or surgery we are regulated from A to Z, as are the corporations with which we deal. It is my belief, however, that if the industrial surgeon carries on his business in a businesslike way, and treats his injured as all professional men should care for their patients, he need not fear any form of regulation, because he is right. Right is might; and finally it will win. In industrial surgery, when a great volume of work is contemplated, or is being done, organizations are sometimes formed as corporations; others form partnerships. In some instances, these associations are headed and owned by one or more individuals not of our profession. To carry on this work with any success, there must be associated members of our profession. The physicians doing this work, in many instances, are salaried. Others, especially in outlying districts, are working for the layman head of this profession, on a fee schedule minus plan. In other words, this association, to properly thrive in a financial way, must make money off of the hired physician. Fee-splitting with the insurance carrier, solicitation of business through foremen of the assured, with proper remuneration for the same, and paid agents foraging through industrial sections for business, are means used by some of these associations. If these facts are true, as rumors go, as a profession we are commercializing our abilities; and are casting our ethics to the winds to forward the interests of these unscrupulous associations who care not for honor, but whose only aims are of a mercenary nature.

Whom shall we blame for this condition? The ones vitally concerned are the insurance carrier, the assured, and our profession. Let us first consider the insurance carriers. They are in business to make money. Philanthropy does not pay dividends, but honesty does. No business established and carried on by dishonest means can continue to thrive. If dishonesty exists through agencies of the big com-

panies, I cannot be convinced that it does so with the consent or knowledge of the heads of the big companies. My experience of many years with "Big Business" has impressed upon me most forcibly the abhorrence of these men of dishonest methods, and their appreciation of honest service. We must not condemn "Big Business" for an overt act of one or more of their employes. So long as our profession allows itself to be auctioned and sold to the highest bidder, we have no one else but ourselves to blame; and we are lowering the standards of one of the greatest of professions.

The industrial surgeon has been, and, in the future, is to be created. The specialty of industrial surgery will be recognized, as are the other existing specialties. May those, who aspire to be such, work faithfully toward the goal, with heads erect, turning neither to the right nor left, but looking forward toward the time when employer, employe, insurance carrier and doctor may feel that, by hearty co-operation and unanimity of purpose, they are fulfilling the law which was made for the protection of the working class.

917 Brockman Building.

DISCUSSION

Ross Harbaugh (350 Post Street, San Francisco)—I have read with interest Doctor Moore's paper, and some of the points brought out cannot be impressed upon us too forcibly. I do not believe that any of us always fully realize how important it is to go carefully into the history of every patient. History is always important in any medical work, but may become doubly so in industrial work. To illustrate: A case came before the Industrial Accident Commission, history being that some time ago the patient had hurt his foot. Later on an infection followed, resulting in a plantar abscess with serious involvement of the tendons, etc. On investigating the case, it was found that he had been seen by three different surgeons, all fully versed in industrial work and all doing a great deal of it, not handling an occasional case. The first surgeon had reported that the man fell off the running-board of a truck and injured his foot. The second surgeon stated that he had twisted the ankle. The third surgeon stated that the man had stumbled over the cap of a milk-can. Now, as a matter of fact, the man had twisted his foot, but not one of the three doctors had taken up the question as to whether or not there had been a direct blow or serious trauma, feeling, I suppose, that the case was a minor one; merely a sprain, and that an abscess would not follow. Therefore, at this late date, it is next to impossible to find out, from a medical standpoint, just what happened. Another case: A man was known by his family to have had a rupture for many years. During the course of his occupation he sustained an accident (or it is thought that he sustained an accident); just exactly how severe this accident was or just how much it troubled the man, we have no means of knowing. The rupture is said to have troubled him for two months after this accident. At the end of this time, the doctor was called and found the rupture strangulated; ordered operation, which resulted fatally. No history was taken of the alleged accident, although the doctor knew that there was such an occurrence. This, of course, has made it difficult to make a decision. We could have had first-hand information from the doctor, but the case must be settled on laymen's observations.

Cases where insufficient histories have been taken are daily occurrences; I could add to them without number.

Confidence in the surgeon is absolutely essential, and the industrial surgeon is always handicapped in this respect. To overcome this, then, if he is going to be a successful industrial surgeon, he must have more than the usual faculty for handling people in general, and workmen in particular. No one man can please everybody, but he certainly must be a high-class surgeon with the ability and knowledge and skill to treat the type of case adequately with which he is coming in contact. The doctor has touched upon the question of first-aid treatment, and I wish he had gone into it in more detail. Speaking from a personal point of view, it is my impression that nowadays first-aid treatment, as a general rule, is very well administered. I have seen no grave errors committed. I believe that this is one of the good things that industrial surgery has brought about. The insurance carriers and employers, both large and small, have been impressed with the value of first-aid treatment, and I am sure that they have universally been benefited by it.

D. I. Aller (908 Mattei Building, Fresno, Calif.)—Doctor Moore's paper on "Industrial Surgery as a Specialty" has been read and enjoyed.

The industrial surgeon of today must not only be a good general surgeon, but must be a man well-grounded in all the fundamentals of the science and art of medicine, as there is no field in which one has such unlimited opportunities to apply general as well as specialized skill.

First aid as rendered today, in my opinion, is quite efficient, if the surgeon follows it at a very short interval with properly instituted therapy and does not allow first-aid measures to carry the patient over any extended period of time.

If the industrial surgeon is the trained educated man that all practitioners should be, there is no question to be raised as to his conduct toward patient, insurance carrier, or the employer. His course is the plain path of applying his best knowledge to the case in hand, and the end-result should be fair to all concerned.

The practice of compounding a simple fracture, only on the rarest occasions, should stamp a man as incompetent. However, in head injuries, it is my belief there are definite indications which demand decompression and drainage; but as these cases are few, the surgeon should be very sure of his findings before proceeding with such radical treatment.

If a careful history has been taken and the treatment as near standard as practicable, the diagnosis right, and the end-result a definite entity which is measurable, the witness chair should be a period of relaxation and not a nightmare or a thing of horror.

It is always to be expected that when a new field opens in medicine or surgery, the unscrupulous for a time will be in the ascendancy, and make for themselves money at the expense of all concerned, especially the patient; but following this there is always a period of readjustment, which is now being shown on the part of some insurance carriers, in the selection of the best medical talent that their particular locality affords. Which indicates that experience is teaching that the best medical and surgical aid available is cheapest, not only in dollars and cents, but in lessened disability periods, fewer permanently disabled, and a contented clientele.

The problem before the industrial surgeon is to do the work at hand conscientiously, painstakingly, giving the best he has to the problem; and recognition will come, and with its coming will be the permanency of the newly created specialty, industrial surgery.

W. C. Adams (Medical Building, Oakland)—I might add to Doctor Moore's paper that the industrial surgeon should have reasonable knowledge of the Workmen's Compensation laws. With this knowledge he can be of valuable service to the insurance carrier, the employer, and the injured. He will recognize at once when the injured appears whether or not the injury comes under the Workmen's Compensation laws, and in making a careful report, especially in border-line cases, better enable the insurance car-

rier to determine its liability. He can be of service to the employer in the making of his reports and in giving him the proper information as to what comprises an industrial injury. He can be of valuable service to the injured, in helping him obtain his proper compensation by informing him of the proper procedures.

In the matter of histories, I believe we all know the value of an early history which is concise and states all the facts. Of course, the earlier the history is taken the more accurate and truthful will be the statements of the injured. A history taken immediately after the injury will almost always be the truthful one, but when the patient does not seek medical aid for two or three days after the injury, or the attending physician has not taken the history for two or three days, he is very apt to obtain statements which are not exactly the actual happenings. As mentioned by Doctor Moore, questioning the injured from day to day often throws the proper light on the actual condition. This particularly is so in doubtful cases.

Doctor Moore speaks of the lack of confidence of patients in the industrial surgeon. It might not be out of place to mention here the confidence an insurance carrier should place in the industrial surgeon. If by some chance the injured does not improve satisfactorily, the insurance carriers, whether through their medical directors or chief claim adjusters, are always ready to criticize the surgeon in the most curt manner. The insurance carrier should encourage to the utmost a surgeon who is giving them service; and should a case not be going well, should seek the cause from the attending surgeon in a friendly manner rather than by criticism. It often appears that the insurance carrier never considers the large number of successes of the surgeon, and criticizes severely when an occasional bad result arises. For this reason alone large numbers of our most efficient medical men are not willing (and justly, too) to take this abuse, and, therefore, their valuable services are lost, making the good industrial surgeon a rare rather than a common finding.

I wish to commend Doctor Moore for advocating well-equipped offices. No office can efficiently care for the industrially injured without a thoroughly equipped physiotherapy department which must include diathermy, faradic apparatus, hydrotherapy, thermolite heating, massaging, and medical and corrective gymnastics. A well-trained physiotherapist who understands the application and indication for the use of the above is indispensable. There is at the present time too great a tendency to the use of office aids who understand little if anything about physiotherapy, and this practice should be discouraged.

Much is yet to be spoken on this interesting subject, but I do feel that the standards of our industrial medical work are rising greatly and that this great work will soon be placed in its proper rank as one of the important surgical specialties.

Doctor Moore (closing)—I have read with interest the discussion of Drs. R. W. Harbaugh, D. I. Aller, and W. C. Adams, and I heartily agree with their suggestions as expressed in their discussion.

I believe that we cannot dwell too forcibly upon the history of all industrial injuries, both personal and family history, going into the medical as well as the surgical procedure which may have antedated the injury which we are treating.

I note that Dr. Harbaugh discusses strangulated hernias. This is a serious condition which must be early recognized by the surgeon. The end-result depends upon the early diagnosis in these instances.

"With public sentiment nothing can fail; without it nothing can succeed. He who molds public sentiment goes deeper than he who enacts statutes or pronounces decisions. He makes statutes and decisions possible or impossible to be executed."—J. H. Beal, Midland Druggist and Pharmaceutical Review, November, 1923.

CHAIRMAN'S ADDRESS *

SECTION ON GENERAL MEDICINE

By A. S. GRANGER, Los Angeles

So many cults, fads and pathies have sprung up, gained root and flourished, especially on this Western Coast of ours, that many of us have become alarmed at the extent of their growth, and have pondered over the reasons for such inroads upon the sacred right to practice the healing art in ways other than we have come to believe are the only right ones. We have even attempted to enter the field of politics and enact legislation aimed toward the requiring of these alleged competitors to become better educated. Now, it has been my belief that the reasons for the popularization of such faddisms lie largely within ourselves, and that we may best fight them by (adopting a common phrase) "cleaning our own house" and improving our shortcomings so that educated people, at least, will in time recognize the advantages of scientific medicine, and our so-called competitors will die for want of proper support and sustenance. May I, therefore, call to your attention a few of the evil tendencies which, to my mind, are fraught with certain dangers and pitfalls and which we should be careful to avoid if we are to do the best that is in us toward a conscientious and honest effort to be of the greatest possible service to our patients.

OVERSPECIALIZATION

There has been during the past decade a noticeable inclination toward overspecialization, not only in medicine in the broad sense of the term, but even in the so-called branches of internal medicine. Now, the field of internal medicine is not so broad but that its students should have a sound, basic knowledge of all of its component parts, and because there is scarcely a disease of any one system that may not influence other systems or be in turn influenced by them, we should be cognizant of the balance that each system maintains with the others. It would seem essential that a young man entering upon the field of internal medicine should practice that field generally for a number of years sufficiently to have obtained the broadest possible conception of disease from the angle of every organ of the body before he announces that "hereafter practice will be limited to diseases of the heart and blood vessels," or to "diseases of metabolism," or to "endocrinology," or what not. And it is to the young physician that these remarks are particularly addressed. It is human nature that an individual specializing in endocrinology, for example, should, after a time, come to view all patients from the standpoint of their glands of internal secretion, and perhaps overlook very important diseases in other organs which may be of paramount importance. He may answer such a criticism by saying that all his work is referred, and he takes it for granted that the physician referring the patient has gone over all other systems and he himself is not particularly interested in any other issue of the case; he gives his report, outlines the treatment, and the patient is the one to suffer a pos-

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* Presented at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May 12, 1924.

sible lack of diagnosis based upon sound judgment and broad conception. It is true, on the other hand, that certain branches of internal medicine and certain methods of recognized aid in arriving at a diagnosis are better handled by those who, through experience and peculiar adaptability to such methods, become proficient in them; and yet before referring our patients we should be thoroughly satisfied that the condition for which he is referred is the essential one, and not lose sight of other conditions which may be of as great or greater import.

SHORT-CUTS IN DIAGNOSIS

Another tendency lies in the abuse of instruments of more or less precision and of various laboratory methods as short-cuts, in arriving at a diagnosis. The estimation of the basal metabolism, the electrocardiograph, blood chemistry, and the x-ray have all been frightfully overindulged in, particularly by those unfamiliar with the interpretation of results recorded by such means. It would seem, sometimes, that many of us employ such methods simply because they are fashionable or because we don't know what else to do, and, sad to say, we often pin our entire faith on the result of one of these laboratory tests, and again lose sight of other pathological conditions. As a matter of fact, all of these diagnostic aids are of inestimable value when utilized properly, but there are so many cases where our own careful physical examination should tell us much more, and the analysis of our findings should at least lead us to a weighing of the facts as to whether such aids in question are necessary or not. This tendency has come about largely through the teaching and modern equipment of our medical schools and hospitals, where facilities for having all sorts of laboratory work done are constantly at hand and where specialists, at a call, are available to give their opinions. We forget that a certain percentage of the graduates of such institutions are going out to practice in territories where such facilities are lacking, and in consequence they are often at a loss to know how to use their heads and hands in making a diagnosis. All of us who are teaching constantly run into this very thing with our internes. In working up a case they first employ the services of the general laboratory, the roentgenologist, the neurologist, and the surgeon, and base their final judgment on the opinions expressed in these reports rather than going over the patient from every angle and themselves expressing an opinion.

THE HABIT OF REFERRING PATIENTS

This leads to the consideration of another evil—the habit of referring patients to various specialists for opinions which we should be better capable many times of forming ourselves. A patient with rheumatism or neuritis is referred to the nose and throat man for his opinion as to the tonsils and sinuses; to the roentgenologist for his opinion concerning the teeth or gastro-intestinal tract; to the ophthalmologist for eye-ground examination, and where not. And the reports which come back are in general the same. Something ought to come out. All tonsils look bad and should be removed. Suspicious teeth ought all to be extracted. An adherent appendix is a focus of infection, and should be removed. Most of these examinations can be done by all of us, and how much more valuable should our own opinion be, after carefully weighing all the findings, than the opinion of a man who looks upon but one angle of the case. We may interpret the specialist's report, if you please, in the light of whether or not that one factor may be responsible for all the untoward symptoms present. Again the reaction on the patient from this habit is a very bad one. He gets tired of being sent to half a dozen different specialists, and usually when he gets all through with the various examinations there is no one sufficiently interested to piece the results together and weigh them carefully and sufficiently to satisfy him.

OVEREQUIPMENT

Still another tendency frequently observed is the overloading of one's office with equipment of every sort, in the way of a complete laboratory, x-ray machines, basal metabolism units, and, in fact, all of the so-called diagnostic and therapeutic aids. These all require space, and space costs money. Someone has to pay for the upkeep and overhead charged to each department; usually it is the patient, and human nature is such that it is very easy to fall into the habit of running all patients through this and that test whether it be necessary or not.

THE PASSING OF THE FAMILY PHYSICIAN

One of our best known "has-beens" is the family physician, and this has come about largely through specialization. People no longer have one physician to whom they may go with their confidences and to whom they may look for guidance for their own and their family's affairs. Nowadays an osteopath takes care of the back pains, a pediatrician looks after the children, the neighborhood physician attends the servants, and father and mother have a retinue of specialists to look after their various upsets. How much better to keep an eye on our families; send the child to a throat specialist for tonsillectomy if you will, but first examine that child carefully and see if he really needs such an operation or if some other abnormality may contra-indicate it. Examine thoroughly the young wife who has missed three menstrual periods and then refer her to the obstetrician best suited to serve her. In short, guide the medical destinies of your families, and the esteem in which you are held in your community will increase a hundredfold and you will be doing more in the matter of properly educating your share of the public medically than all the articles in the public press ever could do.

I trust that none of you has taken offense at any of these brief remarks. They have not been aimed toward any individual nor to any group of specialists. They are simply the expression of thoughts which have cropped up in my mind by reason of having them all brought to my attention time and time again, and I sincerely believe they are worth while considering.

ARTIFICIAL PNEUMOTHORAX VS. REST IN PULMONARY TUBERCULOSIS

By PHILIP KING BROWN, M. D., San Francisco,
Medical Director Arequipa Sanatorium, Consultant Alum Rock Sanatorium, Southern Pacific and St. Joseph's Hospitals

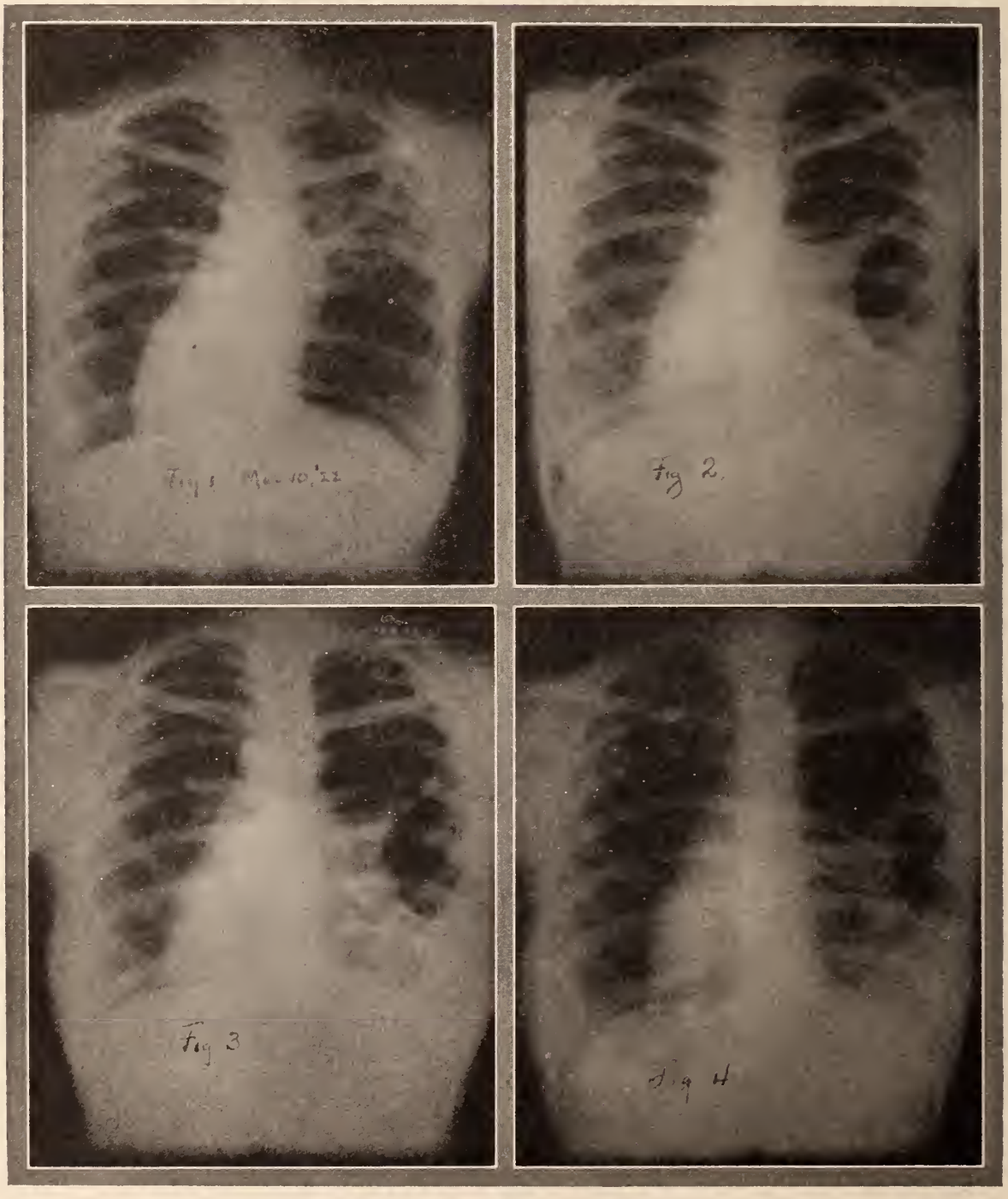
It is not often that one has a chance to compare the effects of bed rest in the treatment of pulmonary tuberculosis with the effects of rest by artificial pneumothorax.

The following case presents the comparison so strikingly that it seems worth making a matter of record:

Mrs. S. A., age 22, referred to Arequipa Sanatorium, March 10, 1922, by Dr. M. P. Burnham, gave the following history. There is no tuberculosis in her family, and her only known exposure was working in a department store near a girl with tuberculosis.

Past History—No serious illnesses and no history of measles, pneumonia, or influenza. Her tonsils were removed six years before under general anesthesia; a wisdom tooth was removed a year before, also under general anesthesia. Cervical repair, following birth of her first child, was also done under ether anesthesia. Seven months later, she consulted a physician for a persistent cough and pain in the right axilla. Her weight had fallen from its highest, 141 at 16, to a general average of 129 when the cough began. Since then, it had gone as low as 115.

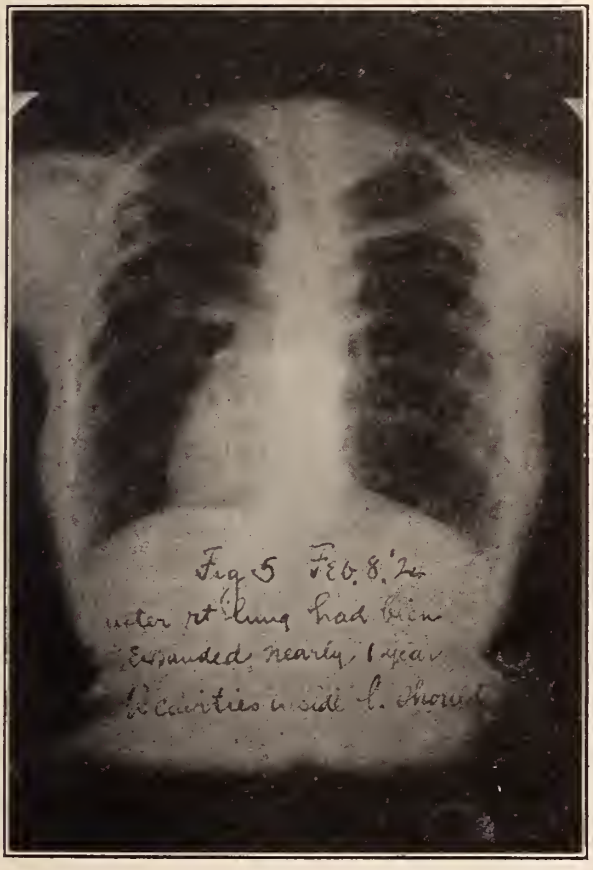
On examination, she was found to have activity in both apices, with especially marked signs in the back. The right upper lobe was quite generally involved, and the upper third of the left upper lobe. Stereo



x-ray plates showed a cavity (see Fig. 1) in the right upper 4 cm. in diameter. It produced no characteristic physical signs.

She was put to bed. Temperature became normal very soon, and in a month the left apex seemed quite inactive. The evidences of pleurisy were constantly present on both sides, but particularly the right, and a partial compression of the right side was done. The left side held up well, and as adhesions were numerous on the right side, threatening to keep open the cavity (Figs. 2, 3, and 4), a full compression was attempted. From April 20, 1922, till March 17, 1923, she was compressed twenty-six times, from 600 to 1450 cc. of air being given at a time. All this time, the left side remained entirely quiet. Toward the end of the period, air sufficient to produce a positive pressure of 5 on the water manometer was introduced, in the hope of stretching the adhesions sufficiently to close the cavity. Within the first six months, she lost her cough and ceased to expectorate. She was afebrile after the first month.

At the end of a year at Arequipa, she was dismissed with the lung compressed and with instructions to report for compression at the clinic. This she did not do, but five months later she reported with her right lung fully expanded and a further gain of five pounds, no cough, no expectoration, no signs of activity in either side, some pleural signs on both sides. She continued to improve for the next few months, when the baby had measles and scarlet fever, and financial worries made matters worse. A cough developed, and in February, 1924, an examination showed activity in the left apex. Plates of the lung (Fig. 5) showed that the original left-sided lesion had become active again after an arrest of nearly two years, and had broken down so that there were two cavities the size of quarters just inside the left shoulder. The right side showed *nothing* on physical examination, and the x-ray plate shows no sign of the cavity, no scar tissue, *nothing*, in fact, to indicate that the lung had been extensively involved two years before, and had a cavity in it as large as a big egg.



A comparison of Fig. 1 and Fig. 5 shows what artificial pneumothorax can do to a well-advanced destructive lesion in the lungs. During the year of compression of that side, while the patient was herself at rest, the arrested lesion in the left apex remained absolutely inactive and showed no signs for a further period of eight months, during which time no extra strain was put on it because the right lung had expanded fully.

Under two months of nervous and physical strain with a bad cold, the left side has a serious relapse, while the right side, many times more involved than the left, remains absolutely sound.

909 Hyde Street.

REPORT OF 300 CASES OF PULMONARY TUBERCULOSIS TREATED WITH PARTIAL ANTIGENS (MUCH-DEYCKE) DURING THE LAST THREE YEARS *

By MAX ROTHSCHILD, M. D., and HARRY WARREN, M. D., San Francisco
(From the California Sanitarium, Belmont, California)

One of the principal differences between the partial antigens of Much-Deycke and other vaccines is, that the tuberculin or toxin is removed, and, as a result of that change, the partial antigens rarely produce reactions when administered. For this reason, they may be used in febrile cases.

The second difference lies in the fact that the residuum of the culture of tubercle bacilli, after the toxin has been eliminated by filtration, is split up, by treating it with alcohol and ether, into three groups—an albuminous group, termed A; a fat acid, termed F; and a neutrad fat group, termed N. These three groups represent the antigens which are used for treatment, according to the presence or absence of the corresponding antibodies. Varying dilutions of the antigens are injected intracutaneously, and by the local reactions resulting it is ascertained which antibody is present and which antibody is absent.

There have been several objections to the partial antigens. The two important ones were, first, the claim that no antibodies existed to lipoids. This objection has been definitely eliminated. It has been proven by European, as well as American schools, that antibodies to fat bodies do exist, and, in fact, play a very important role in vaccine therapy.

The second objection was that the claim of Much that the immunity of the patient could be determined with almost mathematical accuracy by the partial antigens was not substantiated. This objection is undoubtedly justified to some extent. In some cases the clinical picture does not entirely harmonize with the result of the immunity test. There does not exist any immune biological method which would give us a picture of any state of immunity with mathematical accuracy.

* Presented to the Section on General Medicine at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May 14, 1924.

Another objection which has been raised is due to the claim of Much and Deycke that the partial antigens should be and could be used successfully in all cases of tuberculosis. It is the same mistake that has been made by so many other discoverers of new sera. In our opinion, the use of different tuberculins should always be based on a thorough study of the underlying pathological condition, and this determination is of the greatest importance in the treatment of pulmonary tuberculosis. We are well aware that there are still some schools that object to the treatment with tuberculins in any form, relying only on non-specific treatment such as rest, sunshine, food, x-rays, pneumothorax, where indicated, and other non-specific methods. But these schools are in the minority. I have used tuberculins extensively for a great many years, and I would not like to be without them in the majority of cases.

We divide the pathology of pulmonary tuberculosis into two principal types—the exudative and the productive. The exudative type is that type in which the infection begins in the alveoli, the parenchyma of the lungs. It causes the secretion of serum and leucocytes into the alveoli, and is followed gradually by ulceration and cavity formation. The other, and by far the more favorable type, is the productive type. Starting in the interstitial tissue, it is followed by cirrhosis and scar formation. A purely exudative or purely productive type is, of course, only found in the very first incipiency of pulmonary tuberculosis. The more the case is advanced the more the two types become merged, and it becomes more difficult to determine which type is predominant; but this can be done in the majority of cases by clinical observation, x-ray study, and most accurately by immune biological tests.

In the more dangerous type, the exudative, the toxin-free tuberculins are indicated; of these the partial antigens have given us better results than any other. We have used them for the last three years, and with each year our results have become better, as our statistics show. This fact is undoubtedly due to a modification in the treatment. We have not strictly followed the directions of Much and Deycke, but we have used the partial antigens chiefly intracutaneously as Sahli, in Switzerland, has recommended for the Beraneck serum. Also we have, especially in the more advanced cases, confined ourselves to extremely small dosages, in longer intervals, increasing the doses only when we considered it justifiable.

With our increasing knowledge of immunology, we have to realize more and more the great importance of the skin as an organ for the production of antibodies. If we consider the fact that those infectious diseases which are characterized by more or less classical skin eruptions as, chickenpox, scarlet fever, typhoid, smallpox, et al., produce a very definite and lasting immunity, we will realize that the skin must have a good deal to do with this fact.

Time does not permit me today to discuss further the differentiation of the pathology or the theoretical explanations why the toxin-free tuberculins are more indicated in the exudative type, and the old tuberculins in the productive type. Please do not think that we regard the partial antigens as a specific for pulmonary tuberculosis; on the contrary, we have had our failures as have all others engaged in treating that class of patients.

I am bringing this method before you as having given us the best results, and am presenting, radiographically, some of the cases to illustrate the points I have so briefly mentioned.

THE BAD RISK AND THE SURGEON *

CHAIRMAN'S ADDRESS: SECTION ON GENERAL SURGERY

By REA SMITH, M. D., Los Angeles

Very frequently in our surgical life we are confronted with the problem of a patient whose condition demands operative interference, often of a life-saving character, and yet, for one reason or another, the operation by routine methods is nearly, if not absolutely, contra-indicated.

In the field of making safe the urgent surgery for the "bad risk" patient, Crile has, I think, contributed more than any man or group of men. His practice of the two-stage gastrectomy—the two-stage operation for goitre have been widely discussed and adopted. The giving of great quantities of fluid under the skin—not by the pint, but quart after quart the day before and the day after operation, has undoubtedly saved many lives.

The training of more men to use local anesthesia for major urgent surgery is, I think, an even greater step toward the safety of many patients. I use the word "training" advisedly, for it is absolutely necessary for surgical assistants and operating-room staff to be quite accustomed to the changed conditions of abdominal section under local anesthetic, to have it successful at the time it is needed.

An acutely diseased appendix occurring in the course of pneumonia; perforated gastric or duodenal ulcer in the course of influenza, or even the more elective procedures in upper or lower abdomen in presence of active pulmonary tuberculosis, illustrate the point I am making. All these things are simple and can be done without general anesthetic without discomfort or distress to the patient and without the great mental strain that is so often spoken of, if the whole surgical team is trained in gentleness, deftness, and silence.

To me the greatest boon has been the simplifying of the treatment of the deeply *jaundiced* patient with duct obstruction. Formerly, my mortality was so high that I viewed with terror a yellow skin in office or hospital. We would test for coagulation time—give preliminary blood transfusion and calcium, and do everything in our power to make our patient safe and then go in and remove obstructing stones in the common duct—drain the liver and put our patient back to bed in good condition and feel that we had done a very "slick" surgical procedure. The next day the patient remained in good condition, but the drainage decreased. The following day the pulse began to go up; the patient began to be restless and the drainage became much less. Under the impression that our tube might be stopped, we loosened the tube and drains without avail. The

* Presented at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May 12, 1924.

bile stopped coming, and on the fifth or sixth day the patient died. This, of course, did not happen every time, but it happened far too often. These patients died from lack of liver secretion due to hyperemia, following sudden relief of pressure, just as the patients with prostate troubles used to die from hyperemia of kidneys, following primary prostatectomy due to sudden relief of pressure on the circulation of the kidneys. The same procedure that has made prostatic surgery safe has also made safe the surgery of biliary obstruction.

Under local anesthetic, the abdomen should be opened and a tube tightly sewed into the biliary tract behind the obstruction—the gall-bladder preferred, if the liver can be drained from there. A clamp placed upon the tube immediately so that the dammed-up bile will not all escape, and the patient returned to bed. Releasing the clamp for one-half to one minute each hour will be enough to keep tension off the stitch line, and slowly empty the liver. It is very interesting to watch the bile lighten from the ordinary black concentrated flow at first to clear mucous on the third day, then slowly return to its normal amber color. When normal bile comes freely, the patient is safe for any radical duct surgery, just as the kidney function established by preliminary controlled drainage of the urinary bladder makes the patient suffering from prostatic trouble safe for radical removal.

A great deal depends upon the relation of the surgeon to his patient—his ability to establish a trust and confidence in his patient which will carry them both *by* the short interval of time when a viscus is open and it is imperative that the field be unchanged.

"Much of the individuality and personality of the surgeon comes silently out in his operating," says Bickham. "There are manifest his broad or narrow surgical knowledge; his operative technic; his profound knowledge of practical anatomy, or his 'cut-and-tie' method; his knowledge of surgical pathology, or his surprised and nonplussed discovery of unknown or illy understood conditions; his system, or lack of system; his orderliness, or its absence; his reasoning, or his drifting; his action following conviction, or his action determined by accident; his regard for the structures of man, not unnecessarily to harm even connective tissue, or his disregard of all but his preconceived goal, with much needless sacrifice of important parts on the way.

"Operative surgery is, in a sense, applied anatomy; and it is highly satisfying to the surgeon as well as to his onlookers to see the steps of an operation proceed with careful and conservative regard for the anatomic structure of man, with the realization that not a fiber is there to be sacrificed uselessly, though he, in his meager knowledge, may not know its full value and exact function; with the same tenderness of care as though the patient's body were his own body and his structures as valuable as his own. The mechanical side of the surgeon's art should be so instinctively done, and be so free of effort, that the higher, weightier expressions of mind, judgment, decision and its allied manifestations, may have unfettered play spontaneously and not require to be called up by effort. Quickness of thought, with prompt action upon decision, are desirable; simplicity and directness of personal technic; quietness and calmness under the most trying, as well as under the easiest, circumstances; smoothness and accuracy of detail in the team-work of surgeon and his assistants are all admirable.

"Detail and thoroughness, and conservation of the tissues, should not be sacrificed for speed; nor should dilatoriness of technic, or a wavering mind unnecessarily prolong an operation. It is wiser to operate well than to operate brilliantly; a superlative degree of the former and a reasonable degree of the latter should be the surgeon's aim. Probably many lives have been the direct cost of unbalanced operative brilliancy.

"While the patient is better off in the hands of a timid, painstaking surgeon than in those of a bold, destructive operator, judicious boldness—the boldness that comes of the certainty of knowledge and the certainty of one's self—is a creditable asset to its possessor, and a pleasant sight to those viewing his work. The boldness that comes of ignorance or recklessness cannot be too sweepingly condemned. Timidity in operating is generally an agony to the operator himself; and is only too evident, and an uncomfortable sight to those obliged to witness it. Timidity is practically always an expression (and confession) of ignorance—often an ignorance of surgical pathology, but much more frequently an ignorance of pure (to say nothing of surgical) anatomy; and a pale face, troubled eyes, uncomfortable moisture, cold hands, and cold feet are only too often its outward signs.

"The conscientious surgeon is profoundly affected by the responsibility and seriousness of his role; and to the desirable acquisition of 'the eye of an eagle, the hand of a woman, the heart of a lion,' may well be added the soul of a man."

1136 West Sixth Street.

Blocking Lymphatics in the Control of Carcinoma of the Prostate Gland—After a careful review of the literature, supplemented by experience, Robert H. Herbst, Chicago (Journal A. M. A.), concludes that the treatment of carcinoma of the prostate resolves itself into a consideration of the following problems: (1) The control of the cancer; (2) the relief of urinary retention, and (3) the obtaining of the best possible function after the cancer has been controlled. In order to accomplish these purposes, Herbst believes that it is essential to open the bladder suprapubically. A suprapubic cystotomy gives the opportunity to accomplish best these three problems. When the lymphatics leading from the prostate gland have been blocked by the action of radium, the malignancy in the gland proper may be taken care of by introducing needles through the perineum, supplemented by urethral and rectal applications. Roentgen-ray therapy is undoubtedly of some value in conjunction with these other methods. In Herbst's opinion, the failure to control the disease in the past has been due, at least in some instances, to the haphazard introduction or application of radium to the malignant prostate. A knowledge of the lymphatic circulation, together with the establishment of good drainage of the urinary tract, is essential to success in the control of the disease. Accuracy, coupled with attention to detail, is as important in the control of cancer of the prostate as in any other surgical procedure.

SYMBIOTIC LIFE*

(Reported by E. G. Best, M. D., Secretary California Academy of Medicine)

Dr. Nuttall's address was illustrated by fifty lantern slides, which helped materially in conveying to his hearers a clear conception of his thesis. He spoke of (1) Symbiosis in Plants (lichens, leguminous and tuberous plants, mycorhiza in orchids and other plants and (2) Symbiosis in Animals (protozoa, coelenterata, turbellaria, insecta, mollusca, cephalopoda, tunicata and vertebrata (fish), showing how widely symbiosis has been observed in different classes of animals.

The subject of symbiosis is one of broad biological interest, an interest that appeals equally to the physiologist, pathologist, and parasitologist. It is a subject upon which much work has been done of recent years in different countries. The literature relating to symbiosis is largely foreign, somewhat scattered and relatively inaccessible.

The term "symbiosis" denotes a condition of conjoint life existing between different organisms that in a varying degree are benefited by the partnership. The term "symbiont," strictly speaking, applies equally to the partners; it has, however, come to be used also in a restricted sense as meaning the microscopic member or members of the partnership, in contradistinction to the physically larger partners, which are conveniently termed the "hosts," in conformity with parasitological usage.

The condition of life defined as symbiosis may be regarded as balancing between two extremes—complete immunity and deadly infective disease. A condition of perfect symbiosis or balance is realized with comparative rarity, because of the many difficulties of its establishment in organisms that are either capable of living independently or are incapable of resisting the invasion of organisms imperfectly adapted to communal life. In these respects the conclusions of Bernard and Magrou in relation to plants apply equally to animals. It is difficult to imagine that symbiosis originated otherwise than through a preliminary stage of parasitism on the part of one or other of the associated organisms, the conflict between them in the course of time ending in mutual adaptation. It is, indeed, probable that some supposed symbionts may prove to be parasites on further investigation.

In perfect symbiosis the associated organisms are completely adapted to a life in common. In parasitism the degree of adaptation varies greatly; it may approach symbiotic conditions on the one hand, or range to vanishing point on the other, by leading to the death of the organism that is invaded by a highly pathogenic animal or vegetable disease agent. There is no definite boundary between symbiosis and parasitism. The factors governing immunity from symbionts or parasites are essentially the same.

No final conclusions can as yet be reached regarding the function of symbionts in many invertebrate animals owing to our ignorance of the physiological processes in the associated organisms. The investigation of these problems is one fraught with difficulties which we must hope will be surmounted.

New knowledge is continually being acquired, and a glance into new and even recent publications shows that symbionts have been repeatedly seen and interpreted as mitochondria or chromidia. Thus, in *Aphis* the long-known pseudovitellus has been shown to contain symbiotic yeasts by Pierantoni and Sulç, independently and almost simultaneously (1910); Buchner (1914) has demonstrated symbiotic luminescent fungi in the previously well-studied pyrosomes, besides identifying (1921) as bacterial symbionts the mitochondria found by Strindberg (1913) in his work on the embryology of ants. The increasing number of infective diseases of animals and plants, moreover, which have been traced, especially of recent years, to apparently ultramicroscopic organisms, cannot but suggest that there may exist ultramicroscopic symbionts.

From the foregoing summary of what is known today of symbiosis we see that it is by no means so rare a phenomenon as was formerly supposed. Symbiosis occurs frequently among animals and plants, the symbionts (algae, fungi, bacteria) becoming in some cases permanent intracellular inhabitants of their hosts, and at times being transmitted from host to host hereditarily. Among parasites, non-pathogenic and pathogenic, we know of cases wherein hereditary transmission occurs from host to host.

It is evident that we are on the threshold of further discoveries, and that a wide field of fruitful research is open to those who enter upon it.

* Summary of an address delivered May 24, 1924, before the California Academy of Medicine by G. H. F. Nuttall, M. D., Quick Professor of Biology and Director of the Molteno Institute for Research in Parasitology, University of Cambridge, England.

MODESTO SCHOOL CHILDREN GIVEN HEALTH DIPLOMAS

The schools of Modesto have carried their health work among children a step further than we have been informed of for other places. They first make the diagnosis of symptoms and what they call diseases by the use of scales and measuring-rods. Then the diseased ones are placed upon the special food prescribed by a technician and the rules contained in "the celebrated Doctor William R. P. Emerson's health book" are prescribed. When the children are well again, according to the scales and "inspection," they are given a diploma.

Our attention has been called recently to some distressing conditions that have grown out of these formularizing mechanical methods of diagnosing and treating diseases. One doctor tells of a case of pernicious anemia that came to him only because the "rules" for diagnosis and formularized treatment failed. Careful examination of another little patient revealed almost too late a deep-seated abscess as the cause of so-called "undernutrition." Other doctors write of cases of chronic duodenal ulcer, amebiasis and malaria, revealed by competent examination among children with school diagnosis of "undernutrition." CALIFORNIA AND WESTERN MEDICINE proposes, in early numbers, to point out in detail some of the crimes perpetrated in the name of health upon our children in this state, and physicians are requested to supply us with more and more data. The names of your patients will not be used, but all other data will be published with or without your name, as you may indicate.

EDITORIALS

UTAH MEDICAL ASSOCIATION

This issue of California and Western Medicine carries the story of the Annual Meeting of the Utah Medical Association. And a splendid meeting it was. Not only was an excellent scientific program carried out, but what is even of greater importance, the various committees rendered interesting reports, and the House of Delegates gave these reports, and all other organization problems placed before it, serious consideration.

It is encouraging to see medical organizations giving more and more serious consideration to the broad, underlying problems of medicine.

California and Western Medicine wishes to endorse the plea made by J. U. Giesy, Associate Editor for Utah, that all county units, sections and committees supply us through the associate editor, or directly, with all medical news of the entire State.

SOME MEDICAL AND HEALTH MOVEMENTS

Movements in medicine and health were never before so numerous or so varied in their methods and purposes as at present. Some of these movements mean permanent progress; many more of them are of the regular "squirrel-in-the-cage" type. The squirrels whiz the cylinder until they are exhausted and then drop into oblivion.

By far the greater number of health movements are of the geyser type. They are generated quickly, spout up suddenly, scatter quite a lot of spray and quickly settle down, leaving the surface unruffled and serene. It takes quite some diagnostic experience to distinguish early between a geyser, squirrel-cage motion, and a movement that means progress. Probably the greatest fundamental mistake that the largest number of people are making is in accepting all movement as progress.

Another feature of this situation that makes our problems more difficult than were those of other days is the all but universal application of organizations. Nowadays every movement, and particularly the "geyser" and "squirrel" types, starts out with an organization behind it. If they can afford it, a press agent is the most active and essential part of the organization.

A comparatively few—and yet far too many—health movements are originated and supported by this or that group of physicians for this or that purpose. It is becoming quite the fashion for any physician or small group of physicians who may become aggrieved at some sin of omission or commission of their acid-tested organizations to start a new organization. Formerly vociferous minorities when they could not rule retired. Nowadays they round up some fellow-soreheads and try the new-fangled "bloc" system.

No one who studies the situation can fail to realize that physicians now have far too many organizations for any sort of effective work, and that the number of these organizations is increasing daily. They are National, State, and local in character and they cover almost every agency, specialty and group interest. Whatever else these multiple organizations with multiple purposes accomplish—and they accomplish plenty—they disperse the interests of physicians, and whether or not so intended they already seriously threaten mass action through our tested, tried and inclusive organizations, by the establishment of "blocs."

We ought to avoid the squirrel cage. This is not the occasion to picture the scores of ways we are splitting in medical and medical agency organizations and the inevitable slowing up of the indivisible whole consequent upon these schisms if we go on as we are now going. As a profession we ought to be big enough and unselfish enough to forego the pleasures of our own glittering squirrel cages when they endanger the rate of medical and health progress.

The vast majority of health movements are conceived and carried forward by others than educated physicians. They are of every conceivable class, with every conceivable purpose. The true purpose more often than not is concealed. In a very high percentage of these non-medical movements for medical purposes, the physician is usually permitted to be the squirrel. Too often he is criticized for not being sufficiently grateful for his privileges. When he is no longer useful, or when he does not whiz the cage fast enough, the door is opened and another squirrel is invited to enter. There are literally thousands of these organizations. One city is now—and again—trying to harmonize the efforts, finances and purposes of over 2000 in that one city.

There is not time here to go into an analysis of these groups, further than to call your attention to two of their most common characteristics: They claim that the practice of preventing disease is not the practice of medicine. This enables them to avoid the responsibilities of the medical practice act and enables them to do, or avoid, many other things not acceptable to the educated physician who employs his heart and soul in his work. Quite generally they try to restrict what constitutes the practice of medicine by enlarging their own fields of alleged usefulness. One group deny that they are practicing medicine because in their clinics or health centers they only "make diagnoses." Other groups limit their clinics, health centers and activities to the use of physical agents, diet, psychology, backbone punching, bought prayers, blue and red lights, and other heterogeneous agents in the treatment of disease. They do not need or require diagnosis and are, therefore, not practicing medicine, as they profess to understand the law.

Most of these movements and many, many others not even indicated here are simply *movements*. They do not affect the sum of human health advantageously; they are practically all temporary in character; they give occupation to heaps of honest but emotional and misguided persons and to heaps more who are neither emotional nor uncertain about where they are going.

WHEN THE DOCTOR COMPETES WITH HIMSELF

(Read, approved and ordered published by the Executive Committee of the C. M. A.)

Even in the old days when "free clinics" were not overly numerous and were usually operated as departments of great metropolitan hospitals, doctors frequently met some of their private patients in the clinics. If these patients were perfectly able to pay —as many of them were—the doctor was likely to be a little peevish. Sometimes the patients were decent enough to express a sense of shame over the situation, but a certain number of them took the attitude that they considered it a good joke to beat the doctor out of a merited fee.

The recent rapid expansion of so-called free clinics, health centers, and other agencies for the care of ambulatory patients has intensified the problem of to what extent a doctor should compete with himself in services rendered to the same patient in his office, on the one hand, and in a "free clinic" or one where the fees go to other purposes, on the other hand. Formerly, the inherent injustice and dangers of situations like this were fairly well controlled because the hospitals co-operated in some degree with the physicians who usually were members of the hospital staff.

During the last five years, these misnamed "free clinics" have grown in California, for example, from less than 100 to more than 1000, and it's a cold, rainy day when we don't add another. With this mushroom growth have come new problems, as well as the accentuation of old ones. The clinics now invade every cross-roads, and are under the control of a wide variety of interests, including national, Sheppard-Towner, state and local government bureaus, and welfare groups of every class. *Very few of the clinics are under medical control.* In many of them physicians are only tolerated, and in some they are not even a factor. Whenever they are invited, they usually give their services freely, and this is most often the only free thing about the clinics. Physicians do resent somewhat the expensive competition between these alleged free clinics—free alike to rich and poor—and those educated and licensed to treat the sick. But what they resent much more than this is the foolish competition between the various government bureaus and other non-medical agencies who operate clinics, and consequently between the clinics themselves. In order to "get business," many of them offer free alike to rich and poor the services of whatever group of doctors they invite to assist them. They go out and beat the bushes in efforts to get more and more business, and they play up the propaganda of fear of disease and utilize all the other methods that would appeal to the world of morons they say we are. *In some of the smaller communities in California there are more clinics than there are doctors.* Some of the doctors complain (confidentially) to their organizations that so much of their time is claimed *free* by this or that group of clinicers that they have not enough time for needed office visits and calls to such patients as the competing clinics with their *free service to all* and their bush-beating campaigns have left them.

These doctors feel that they would much rather give their time free to the poor in their offices and homes as they always have done. But they cannot well refuse to place their time at the disposition of those conducting clinics because of the possible effect upon them in the private practice of their profession. Some fine, educated physicians are giving up their practices because of the unfair competition of subsidized misnamed free clinics which in effect require the doctors to compete with themselves. A doctor who has been in active general practice for over thirty years in one of these smaller centers told the editor recently that he was planning to give up his work and buy a small farm. He is an educated physician who assisted a considerable percentage of the citizens of his community into the world, has taken care of them all their lives, and felt that they were his friends. He now finds that clinics and health centers, largely supported by taxation and private organizations, are taking care of many of his patients *who are better off financially than he is.* The things the clinics won't do, such as night calls, serious problems in homes, service on holidays, etc., are left to him. The principal clinic this man objects to is subsidized by tax money, carries advertisements in the local papers, extolling the superior virtues of the free clinics, has a flock of home-visiting promoters paid salaries from tax money, and more than half the patients ride to the clinic in automobiles. To add insult to injury, a small town tributary to this clinic criticizes the medical profession because their only "family doctor" has moved away and they cannot get another one.

Is this situation exceptional, you ask? Not a bit of it, except that this place has progressed further along the road than most of the smaller centers; and others not so small are traveling in California and to a less extent elsewhere. At the rate we are traveling on alleged roads to health in California, we could, in another five years, put a roof over the state and have plenty of "health experts" to operate it as a vast sanitarium.

WHEN A STATE PUTS THE STAMP OF APPROVAL UPON MIDWIVES

(Read, approved and ordered published by the Executive Committee of the C. M. A.)

There is no medical service which requires greater knowledge, more intense preparation for meeting emergencies, or which is so worrying, or soul, mental and body-trying to the intelligent physician as that of assisting the mother and baby during the trying period of childbirth.

After the student of medicine has spent two or more years in cultural college work; after he has spent four years in an undergraduate medical school doing dissection, laboratory work and study; after he has completed one or more years of internship in large hospitals, and has been then awarded his degree of doctor of medicine; and after he has spent one or more years of apprenticeship with some experienced physician, he is presumably prepared to practice medicine. He is prepared to do his safe best with a certain amount of poise and equanimity in most problems that are likely to confront him. The one service in which he still does not feel fully com-

petent to do all that may be required is that of obstetrics. Few physicians, however experienced, ever reach a point in self-confidence where they enter upon service at the trying hour of birth without a certain amount of worry.

Every childbirth is an emergency fraught with an exceedingly large variety of potential dangers to both mother and child. Most of these dangers are practically eliminated when the service is conducted by an educated physician, and particularly so when he is assisted by a competent nurse. Even under these favorable conditions, and even where the mother had had—as she always should have—the advice of the physician and her nurse during her 280 days of waiting, there are still hazards—several of them—which cannot be foreseen and which cannot always be handled successfully. To be sure, most of them are successfully met under favorable circumstances by skilled, intelligent physicians and the progress made in this field of medicine stands out as a shining light to the credit of scientific medicine.

In spite of these well known facts, some silly people still talk of childbirth as a natural and normal process. So it is in one sense; and so, too, is death. But when they claim, as many do, that because birth—and death—are normal processes, patients do not require skilled care, they, of course, are endorsing theories which they do not themselves practice. It is such murky, dangerous preachments and practices that are responsible for the retention of ignorant or inadequately educated midwives to serve our womenfolk and babies in the most difficult and trying hours for both.

It is the fear of the tongues and votes of these militant crusaders that makes state governments satisfy themselves by "licensing," and thus putting the state's approval upon this irresponsible, half-educated, benighted group of people who often do not know themselves how dangerous they are to the most precious elements of humanity. National government bureaus—one in particular that has invited and assumes great political responsibility for childbirth—is in no essential more far-seeing nor more enlightened in its actions than are most state and local governments. We are hearing particularly from this national government bureau much that constitutes criticism of the poor work of physicians in their services at childbirth. But just watch them as well as state governments put on the soft pedal and cover it with mush when they approach the midwife problem.

This national bureau with large funds—provided by your taxes—seconded by many states is forwarding a movement to "educate midwives." By education they mean a few "intensive courses" of a few weeks' duration. During these intensive courses, they may teach some of the midwives the dangers of dirt under the finger-nails, how to boil urine to see if it contains albumin, and how to charge and collect fees; but what little "education" these people absorb that is not completely neutralized by their "instincts" "superstitions," and "experience," will make them even more dangerous than they now are, because they will capitalize their "education," and their state endorsement (license) will mean even more than it now does.

Some 10 per cent of the births in California are now attended by these irresponsibles, and they are doing it under the state's endorsement. The lives that are sacrificed, and, what is even more important, the injuries to both mother and child that occur as a result of incompetence, no one can know.

If we are really serious about making safer and better childbirth available for all mothers and babies, why not strike at the root of one of the most dangerous angles of the problem by eliminating our licensed midwives and making it at least as uncomfortable for the unlicensed ones as we do for other law violators?

A series of articles will shortly be published in Better Health, telling many illuminating facts about midwives in many countries, and in California in particular.

PRESIDENT PUSEY'S ADDRESS

It is heartening to read the masterly address of William Allen Pusey as president of the American Medical Association, delivered at the Seventy-fifth Annual Session at Chicago, June, 1924. Our president handled several of the most important problems calling loudly to us for solution with thinner gloves than are customarily used upon such occasions.

He gives courage to those who at times grow weary and hesitant in battling for the right; and he makes us all happy with a feeling of security that our leadership is again for another year in safe hands.

Everyone should read his address carefully and study it. Many, of course, will not take the trouble to do so. For these and for the convenience of all, we submit herewith a few of the high lights particularly worthy of study:

"It is nevertheless true that medicine, as a part of the present social organization, is passing through a time of extraordinarily rapid change."

"If medicine is to steer a proper course over the changing social sea, even during the next generation, it must give wise consideration to the present trend of society. For the social organization, all observers agree, is undergoing an actual revolution. And medicine is going with it."

"And so the trend has been continuously from individualism to socialism. As the social problems have become more acute, this trend has been more rapid."

"'During the last decade,' says Hadley, 'the United States has witnessed a movement in the direction of state socialism . . . very different in character from anything which occurred in the century preceding.'"

"How far this trend is going before it is checked, no one can prophesy; but it is clear that our civilization is committed to a sort of socialism, to the effect that the economically fit and competent shall take care of the weak and inefficient. It is an unconscious endeavor to set aside the law of natural selection and to counteract Nature's cruel but salutary process of eliminating the unfit."

"Medicine is, in fact, particularly exposed to the

dangers of socialization, because the projects of socialism that obtain the first acceptance are those that have to do with health and physical welfare. There is an evident tendency now to appropriate medicine in the social movement; to make the treatment of the sick a function of society as a whole; to take it away from the individual's responsibilities and to transfer it to the state; to turn it over to organized movements. If this movement should prevail to its logical limits, medicine would cease to be a liberal profession and would degenerate into a guild of dependent employes."

"There is another side to this picture. There are influences which will in time, probably, first check the socialistic trend and then cause a reaction. Probably this will come only after sad experience and at high cost; but society gets on only with such penalties."

"In the first place, the effects of a natural law, such as that of the survival of the fittest, cannot be greatly modified nor long set aside by the puny efforts of man. In the next place, the machinery for all these socialistic and paternalistic enterprises will in time become so large and unwieldy that it will be impractical and fall to pieces."

"When, in addition to the ordinary machinery of government, we add the new machinery for running the mines and the railroads and the telegraph and the telephone and the wireless, for the regulation of capital and industry, for the stabilization of industry, for employment insurance and health insurance, for old age pensions, for socialized recreations and socialized neighborliness, for socialized health education and programs—when on top of these you pile the organizations for keeping the people from using opium and cocain and alcohol and doing other things that are not good for them, for enforcing all sorts of laws that prohibit some of the population from doing things that another part thinks are wicked, for socialized nursing and medical care, for taking over obstetrics, child welfare and venereal diseases, for the care of the injured, crippled, and defective—when these activities, nearly all of them temporarily good in themselves, have developed to a certain point, the burden will become too great. The men taken from productive occupation and private enterprise that will be required to man them will be such a large proportion of the population that, sooner or later, the social fabric will give way. There will not be enough of the population left for production to take care of the administrators; and a reaction, if not a crash, will come."

"This is no imaginary situation. Attention is constantly being called to it. In view of his wise statesmanship, it is not surprising, but it is a reason for encouragement, that President Coolidge has opposed this trend in his definite stand against federal support of such activities."

"Society is usually saved from its own carelessness—except when a cataclysm occurs—by the persistence of a minority element which, through character, intelligence and force is able ultimately to exercise a controlling hand in the direction of affairs. If civilization is to be saved from the effects of a socialized mediocrity, it will be by the presence in the community of this influential minority."

"How shall we in medicine oppose this destructive social trend? By making ourselves, in the first place, a part of the enlightened minority that is the salvation of democratic government—by being alert to the socialistic dangers to medicine and by aggressively opposing them; by opposing, as vigorously as can be done, the various governmental projects for practicing medicine, and the efforts of organizations, public and private, including medical schools and hospitals, to go into the practice of medicine as a business."

"If we accept without prudent foresight expedients to meet temporary difficulties, such as the Sheppard-Towner Act, medical service will soon be in the same situation as elsewhere in this country. It is not for the good of the people of the country that they should be spoon-fed in the matter of taking care of their physical ills any more than in any other matter in which they should take care of themselves."

"But, after all is said about the other problems and responsibilities of medicine, the greatest of these is the old homely one of treating men that are sick and injured. We hear so much now about preventive medicine, about medicine's new social responsibilities, that this old responsibility is failing to stand out in proper proportions."

"Prevention is an important function of medicine, and will doubtless become more so; but it is altogether likely that it will never be its chief function."

"We would like to see the day when physicians were not needed, but it can be confidently predicted that no such happy day will ever come. Sickness and injury will inevitably remain part of the lot of man."

"Carry our discoveries to the utmost limit, man is still a machine that will get out of order, will be injured and will ultimately wear out. As long as that is true, there will be need for the personal physician to take care of the individual patient."

SYMBIOTIC LIFE

A brief abstract of Doctor G. H. F. Nuttall's recent valuable address before the California Academy of Medicine is published elsewhere in this issue.

What a pity that so comparatively few physicians were able to hear the discussion of one of the most important subjects in biology and medicine by a most distinguished colleague. In the very nature of things, it is and always will be impossible for more than a comparatively few of those interested to hear any address. Then there is that large group of serious students who prefer always to read rather than hear communications on worthwhile subjects.

Many physicians feel the need of more lectures upon medical subjects by selected and invited speakers whose messages are promptly published in our own journals and thus made available to thousands of readers in our territory. This is being done in many places by special organizations of physicians alone or by associations of physicians and other citizens interested in the broader phases of medicine and private and public health. A splendid opportunity is before

such organizations as the Academies of Medicine in San Francisco, Los Angeles, or the medical societies of cities to arrange for occasional addresses by specially invited distinguished students in such a way that many physicians and medical students could hear these scientific messages, and others could read them in early numbers of CALIFORNIA AND WESTERN MEDICINE. Then by co-operative arrangements with important civic organizations like Commonwealth Clubs, Women's Clubs and similar bodies, arrangements could be made for more popular addresses by the same speakers that would be broadcasted by the public press. Any physician can think of scores of subjects and scores of speakers for them, that if handled in the way we have suggested, and as they are being handled in some centers, would do an immense amount of good in our communities.

Doctor Nuttall's address was upon one of the most fundamental and important subjects in biology, physiology or pathology. It has angles of interest to everyone, from the school child to the most ultra scientist. Doctor Nuttall has been universally recognized as one of the leaders in the development of the problem for many years. Few of us realize how interested we should be in what is known about symbiosis, particularly zoologic symbiosis and its application in promoting health and understanding disease until we have had our attention called to it.

We not infrequently think about commensalism on the one hand and parasitism on the other hand, but we are less inclined to follow the mazes of that insufficiently explored field between the two which is usually included under the term symbiosis. Yet, there is no more essential type of knowledge, if we are to understand and estimate the processes of normal and abnormal functioning of the animal body.

The influences of environments in forming and breaking down the scores of symbiotic balances that are parts of our being and the results of these combinations contain the very essence of both physiology and pathology. No one yet knows for certain whether or not many so-called commensals are, actually and intrinsically, harmless, or whether they are held in bounds by symbiotic attachments. No one knows whether or not commensalism can be built up through symbiotic cycles formed largely by environmental influences to positions of true parasitism. We do not yet know how to distinguish between consummative and destructive symbiotic attachments, and we know far too little about the environmental influences which tend to sustain the constructive and harmless symbiotic links or those which tend to neutralize or destroy harmful symbiotic arrangements. We do not know the difference between a symbiotic arrangement by affinity, as it were, and one that actually is in effect an armed neutrality between parasites and hosts.

We say glibly enough that if the human race could be once freed from tuberculosis, our problem would be forever solved. Would it? Nature undoubtedly once built up a saprophytic pseudo-tubercle bacillus through symbiotic cycles, molded by environment into a true parasite. Might not it happen again? Indeed, have we any real proof that this very thing is not continuously going on not only with this, but with other vegetable germs and animal parasites? We have not.

But if this is to be an editorial and not an address, we have said enough. Students who care to explore the field will find it without an equal in interest and importance. And the beauty of the study of symbiotic life is that it not only broadens the intelligence of the biologist and the pathologist, but it bears closely upon the interpretation of the phenomena of life in health and disease and helps the physician materially in the diagnosis and intelligent treatment of disease.

Doctor, you should have heard Doctor Nuttall. I did not this time, but he aroused my interest in his subject over twenty years ago.

CONGRESS, THE DOCTOR

Without a dissenting vote, the House of Delegates of the American Medical Association adopted a resolution calling on the Board of Trustees to use its best endeavors to have repealed such sections of the national prohibition act as may interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally. The resolution has been greeted by the press of the country with general approval. Most of the Chicago newspapers have already expressed themselves editorially, and the following statements represent their general attitude:

Physicians who object to the provisions of the Volstead Act regulating the use of alcohol in the practice of medicine are unanswerable. If the law allows a physician to prescribe spirits for a patient, as it does, the dosage is entirely a matter for the physician's judgment and not for Congress to prescribe.

The law adopts a principle which makes Congress the doctor. The arbitrary dictum is that a patient may be given a pint of whisky every ten days as medicine, but no more, regardless of the opinion of the doctor in the case.

Congress might have declared that whisky had no medicinal value. Some physicians hold that it has no peculiar medicinal value. Others contend that it has. In practice they can follow their own opinions. They will all agree that if it has value the doctor who prescribes it at his own discretion should have discretion as to the amount.

Congress went on the assumption that the medical profession would misuse the prescription blanks. The drys decided that the person who violated the intent of the law and got whisky as a beverage because it was legalized as a medicine should have just as little satisfaction out of it as possible Of course, they did not reach the man they intended to reach. The unscrupulous physician has no difficulty with this limitation. He has many expedients by which it can be avoided. The scrupulous physician finds that his practice is controlled by a law which affronts both his intelligence and his honesty.

It is an absurd theory that Congress may substitute itself for the physician in the treatment of disease, and it is no wonder that many physicians resent such an ignorant and dictatorial interference with medical practice.—Chicago Tribune.

The Eighteenth Amendment is directed solely against the use of liquor as a beverage, and whether the medical clauses of the Volstead law are valid is a question not yet dealt with by the Federal Supreme Court.

Some physicians, it is true, yield to the temptation to prescribe liquor where it is unnecessary, and not a few have permitted themselves to become bootleggers in disguise. But Volsteadism, with its sequels and supplements, has not prevented unscrupulous abuses and never will entirely prevent them. The medical

profession should purge itself of immoral and dishonorable elements, and its efforts in that direction would be stimulated by a congressional policy of confidence toward it. The honorable physician is hampered by Volsteadism, while the charlatan is not even inconvenienced.

The modification of the prohibition statutes demanded by the medical profession would not obstruct proper enforcement of national prohibition. On the contrary, it would tend to facilitate enforcement.—Chicago News.

It has long been recognized that legislation is just as likely to follow public emotion as it is to be guided by scientific knowledge. This fact was excellently expressed by Chief Justice Oliver Wendell Holmes in "The Common Law," when he said:

The life of the law has not been logic; it has been experience. The felt necessities of the time, the prevalent moral and political theories; institutions of public policy, even the prejudices which judges share with their fellow men, have had a good deal more to do than the syllogism in determining the rule by which men should be governed.

The action of the House of Delegates and the general approval given to it by the public as expressed through the press are indications of a healthful reaction against enactments and regulations which have recognized, in their formulation, popular prejudice rather than scientific fact.—Jour. A. M. A.

PHYSICIANS AND HEALTH EDUCATION

Many physicians, hospitals and other medical agencies sometimes must disagree strongly with Haven Emerson. We have had to disagree with him and criticize his perfunctory and unfair comments and recommendations about the physicians and medical health agencies of San Francisco. In this, and several issues to come, that criticism will be continued. Just the same, we also want to commend when possible.

In a recent article, "The Nation's Health," Emerson made many strong statements about "health education" that will have the unqualified endorsement of physicians everywhere. It is true that similar statements have been made frequently by others and the position taken has been the oft-repeated position taken by physicians of California. He says in part:

If I were to sum up what I believe to be the chief contributions of the physician in the care of children of school age, I would say it is honesty and accuracy. Lacking those two things, our whole school health program becomes a farce.

People need to be taught individually how to keep well, because there are a great variety of ways of being healthy. There is no **one** way of being healthy. There is no **one** kind of diet or exercise or medicine for health which is effective or perfect for all people. There is general agreement as to certain elementary principles, but health is in part a matter of personal attainment and not merely the result of general dispensation. A background of many human lives provides the physician with balanced judgment.

We have gone far in these last few years of our experience in nutrition. **It was not many years ago when we felt that the scales and measuring tape were conclusive.**

There are rarely made in the United States, anywhere, complete, accurate, honest, thorough medical examinations of the school child. We have a multitude of school inspections. We have a great number of records of inspections, "once over above the collar." We have developed infinite ingenuity in searching for the **pediculus capita.** Our examinations rarely reveal the nervous reflexes and the capacity of a child to tolerate a variety of helter-skelter diet thrown in at home or abroad. We are constantly accepting, in place of a medical examination with accurate record, the superficial glimpse of the child above the neck.

But how can a doctor responsible for 9000 school children give a thorough examination to each? That kind of man would make more blunders in five minutes than could be cured in a lifetime. You are permitting your childhood to be handled just that way. Honesty, accuracy, and thoroughness must enter the examination of the child. You are not examining a dry goods stand.

The physician must become the director of research in health and its attainment. That is another of his contributions. He should be the person who knows the relative value of lines of study which must be generally prosecuted by the teacher or nurse. **The physician is a practitioner of medicine, and may I say that perhaps the greatest contribution that can be made to the health of the school would be to have every practitioner of medicine make himself personally responsible for the detection and removal of defects of all the children in families which come under his private care? Until that is done, we are not going to handle our project.** As the practitioner of medicine, the physician's greatest contribution is truly the direction of the health of children in families to which he is called.

There are a great many persons who have faith that they can treat disease, but there is only one group of persons in the community who are educated to detect disease and to distinguish between it and health, and they are the physicians.

I do not deny that hygiene can be taught, and taught accurately, by persons who are not physicians; but I believe that a greater depth of understanding and a greater fullness of experience by the teachers of hygiene are to be demanded in the future, and these will come chiefly through medical training and personal knowledge.

SIGNS OF THE TIMES

The attention of our readers has been frequently called to a well organized, well promoted movement to place the control of the health, hygiene and other phases of the practice of medicine among school children, as well as those young persons offensively termed pre-school children, under the control of the public school authorities. Such attempts have been and now are being fought out in state legislatures, and in county and municipal bodies. The national movement is well expressed in the bills before Congress.

One phase of the situation is shown in the following letter from Miss Daisy Hetherington, director of physical education of the San Francisco schools, to Dr. Langley Porter, and Dr. Porter's reply.

April 4, 1924.

My dear Dr. Porter:

It is being suggested all over the country that promotion in school be based upon health standards as well as academic.

I take it, all sane people would agree that this would be a wise procedure if it is a possible one at the present time.

Have we sufficiently definite standards so that this can be justly done? **What are they?** Who shall decide—physician, nurse, teacher?

Should the decision be based on the combined judgments of all?

I shall appreciate your reactions to these questions.

Very cordially yours,
D. A. HETHERINGTON,
Director of Health Education.

April 11, 1924.

Miss Daisy A. Hetherington,
Sharon Building,
55 Montgomery Street,
San Francisco.

My dear Miss Hetherington:

It seems to me that a child whose health

standards are not up to normal should not be a candidate for promotion and should not be following an ordinary school routine. There should be open air schools or special schools to meet the particular needs of such children.

It is my opinion that we have sufficiently definite standards to segregate children of normal health from those of abnormal health. These standards are all known to physicians, and their application should undoubtedly be made by physicians. School nurses also should be sufficiently instructed to be able to bring children who are not up to normal in health to the physician for examination. The teacher's part, it seems to me, should be to note very carefully any children who depart from the normal in matters of posture, attention, emotional stability, and ability to learn, and such physical matters as apparent diminution of vision and of hearing. She should see that not only the parents of these children are informed of her observations in the matter, but she should co-operate with the school nurse to be certain that these defects are brought to the attention of the school physician and of the special physician of the child's family.

Yours faithfully,
LANGLEY PORTER, M. D.

So much publicity has been so easily attained and the public has so thoroughly swallowed the formularization of diagnosis of disease by mechanical "standards" that some enthusiasts appear to believe that given a few more "standards" and a few more formulae and teachers and nurses can make important diagnosis regarding health that are to be determinative for the child's future.

Most physicians—but not all, by any means—believe in the advisability of a certain amount of "health education" when the instruction is given by teachers who know what they are talking about. Perhaps even a larger percentage of physicians believe that the essential health teaching should largely consist, as President Wilbur has said repeatedly, in instruction in the basic biological sciences rather than the more difficult subjects of the morbid changes and manifestations of disease. Practically all physicians believe that whatever is taught should have the sanction of competent medical authority and the instructors must be well grounded in the fundamental biological sciences, and in an understanding of the changes produced by disease.

We have yet to meet the first physician who endorses the idea that teachers, nurses or any one else not fully educated in medicine—including prevention and treatment of physical and mental diseases—should make diagnosis or treat sick persons or even render the far more difficult service of advising persons as to the best methods to employ to limit and delay the development of disease.

This is not criticism of either nurses or teachers who are engaged in developing their own very worthy and much beloved callings. But they have no more business trying to teach or practice medicine in any guise, as is being so extensively done now, than they have law, engineering or any other learned profession.

Nor is this criticism based upon the selfish interests of physicians. The more extensively the proposed type of medicine and public health and education is practiced, the more physicians will be called upon to do.

If the future welfare of our children is the real object of better health service, why not appoint a council of representatives of the California Medical Association, the official public health bodies and the official educational authorities and let them work out the problem of what is to be taught, whom by, at whose expense and any other pertinent phase of the problem?

There is a definite valuable something that is not being done, or what is worse, being badly done. Why not get all legitimate interests together and solve the problem?

CONGENITAL SYPHILIS AND "MALNUTRITION"

Nearly 1100 children were officially reported to the New York Health Board during 1922 as suffering from congenital syphilis. One hundred and eighty-two of them died. Conservative physicians believe that less than 1 per cent of syphilitics are reported to health authorities anywhere. It is, therefore, conservative to state that New York has many thousands of syphilitic children, and that a similar proportion of the population in other urban centers are so diseased.

Of course, all of them are suffering from so-called "malnutrition," and thousands of them have been so diagnosed by technicians working with scales, measuring-rods, and by "inspections." Not only this, but they are being treated by "diets" prescribed by alleged nutrition experts. In too many instances such incompetent, if not criminal procedures, are carried out until the serious disease has definitely and permanently injured the child or even caused death.

Physicians are beginning to discuss among themselves specific instances of situations like these. Then, too, there are other diseases—several of them—in children whose technician-prepared diagnosis is "malnutrition" or "undernutrition," and whose technician-prescribed treatment is "diet." For example, a child with a diagnosis of undernutrition and who was being treated by diet, fell into the hands of a physician who found an enlarged spleen and malarial parasites in the blood.

DOCTORS AS HEALTH WORKERS

"In all lands doctors are an essential part of the public health movement," says George E. Vincent in the 1923 report of the Rockefeller Foundation. They report births, causes of death, and cases of communicable disease. Upon them depends the introduction of new resources of diagnosis and treatment; for good or ill they educate their patients; they influence public opinion for or against preventive policies. *No health service can prosper permanently unless it can command the loyal support of competent, local practicing physicians.* The presence of physicians, poorly trained or with no interest in preventive medicine, or of representatives of various occult, empirical, or fraudulent cults is a serious handicap to sane and effective sanitation and hygiene in a city, town, or countryside."

We commend particularly the italicized part of Mr. Vincent's wise statement to the serious attention of the public health officers in certain places in California.

Medicine in the Public Press

Making Them Normal—The Bakersfield Californian says editorially: Eighteen schools of Providence, R. I., have entered a contest in bringing underweight pupils up to normal. The progress of each school is indicated by a device showing a miniature racetrack. Each school is represented by a tiny automobile, which moves forward to correspond with the relative percentage of the pupils who have gained weight. The Providence Co-operative Nutrition Bureau is conducting the contest. This is an excellent plan, not only because of the immediate beneficial results among the underweight pupils but also because of the interest it creates in school affairs and the knowledge of physical self-care which comes to the child during such a campaign. California and Kern County children are carefully inspected in this regard, and it is likely that such early care of the future manhood and womanhood of the country is among the important factors causing the decrease in death rate.

Make your own comment.

The world is experiencing today an extraordinary uprush of superstition. Like our primitive ancestors, we have our medicine men and our magicians; and we are eager to believe in effects without examining causes, and in achievements without inspecting the mechanisms to attain them. The subway newsstands are littered with a bastard crew of magazines ballyhooing short-cuts to brain-power, will-power, thought-power, or personality-plus. A provincial French apothecary sweeps to fame by telling the lame and the halt to mumble a specific incantation and be cured. Masses of credulous people look to glandular treatments and to psychoanalysis as our forebears did to the rituals and spells of their witch-doctors. Like tribes of savages, tormented by drought or deluge, famine or pestilence, we turn anywhere and everywhere to be rescued. Pseudo-scientific jargon is the descendant of priestly patter, and we prefer its glitter to the toilsome unadorned methods of genuine science and pure reason.—Irwin Edman.

Law and Manners—"There are three great domains of human action," said Lord Moulton (The Atlantic Monthly) in a remarkable, thought-provoking address. "First comes the domain of positive law, where our actions are prescribed by laws binding upon us which must be obeyed. Next comes the domain of free choice, which includes all those actions as to which we claim and enjoy complete freedom. But between these two there is a third large and important domain in which there rules neither positive law nor absolute freedom. In that domain there is no law which inexorably determines our course of action, and yet we feel that we are not free to choose as we would. The degree of this sense of a lack of complete freedom in this domain varies in every case. It grades from a consciousness of a duty nearly as strong as positive law, to a feeling that the matter is all but a question of personal choice. Some might wish to parcel out this domain into separate countries, calling one, for instance, the domain of duty, another the domain of public spirit, another the domain of good form; but I prefer to look at it as all one domain, for it has one and the same characteristic throughout—it is the domain of obedience to the unenforceable. The obedience is the obedience of a man to that which he cannot be forced to obey. He is the enforcer of the law upon himself.

Thus there was wisely provided the intermediate domain which, so far as positive law is concerned, is a land of freedom of action, but in which the individual should feel that he was not wholly free. This country which lies between law and free choice I always think of as the domain of manners. To me, manners in this broad sense signifies the doing that which you should do although you are not obliged to do it. I do not wish to call it duty, for that is too narrow to describe it, nor would I call it morals for the same reason. It might include body, but it extends beyond them. It covers all cases of right doing where there is no one to make you do it but yourself.

The dangers that threaten the maintenance of the domain of manners arise from its situation between the region of absolute choice and the region of positive law. There are countless supporters of the movements to enlarge the sphere of positive law. In many countries—especially in the younger nations—there is a tendency to make laws to regulate everything. On the other hand, there is a growing tendency to treat matters that are not regulated by positive law as being matters of absolute choice. Both these movements are encroachments on the middle land, and to my mind the real greatness of a nation, its true civilization, is measured by the extent of this land of obedience to the unenforceable.

When a Bad Child Is Not Bad—"If the small son and heir has a bad fit of temper, the thing to do with him in this modern day and age is not to administer a severe chastisement, but to send him to the 'habit clinic.' He's not naughty, he's a patient," says the San Francisco Daily News, editorially.

"This is the latest development of freedom of action and self-determination in America as interpreted by the United States Department of Labor, Children's Bureau.

"Children who won't eat, children who scream when they are reproved, shy children and bossy children, children who lie and steal are taken to the clinic as 'patients,' are diagnosed, and treated for their bad habits.

"The most frequent cases, in the order named, have related to feeding problems, temper, tantrums, pugnacity and shyness, problems of sex life, neurosis, destructiveness, delinquency, and acute personality changes.

"During the past year Doctor Thom's clinics (in Boston) treated 160 children. He reports that only nineteen showed no evidence of improvement."

How the Mind Causes and Cures Disease—"Outside of surgical cases, contagious diseases, and accidents, nine-tenths of the people who come to a doctor are suffering from functional disturbances which usually have a mental origin and can be cured by mental methods," says Dr. William S. Sadler (American Magazine). The editor thought enough of the following statement of the doctor to place it in a box at the head of the article:

"The mind," says Doctor Sadler, "can cause the sensation of pain and mind can relieve pain. This has been proved by injecting distilled water into the arm of a suffering patient. He thought it was morphine—and the pain was promptly relieved. This experiment has been made many times with complete success. In one case, I did this when the patient, a young woman, was begging for morphine. Two minutes after I had injected plain boiled water into her arm she was sleeping peacefully."

Physicians should read this article. It will probably be read by some hundreds of thousands of people. You are likely to get the reaction from your patients and from your children who are taking the "health education" courses in the public schools. The article will attract considerable attention because the doctor is an educated, regular physician. Without in any way questioning the author's good intentions, we believe the result of articles of this kind is harmful rather than beneficial to the cause of better health.

Profit in Babies—It is not likely that you ever heard of a firm profiteering out of investment in babies, but

the H. K. Ferguson Co., one of Cleveland's largest factory construction companies, does it.

In 1913 the Ferguson Co. put on its payroll these items:

Single babies—$50.

Twins—$100.

Brides and bridegrooms—$100.

Since that date the company has sent out checks for thirty weddings and over 100 babies, and Mr. Ferguson figures out a profit. "People are happier when married and doubly happy with children," he says, "and the most surprising thing is the way it works back to me. My people are showing more interest in their work."

Queer idea, isn't it? When your workman is happy with babies, he does better work Some of the labor-crushing gangs that run Chambers of Commerce ought to study it.—Editorial, San Francisco Daily News.

Cult Father Yields: Daughter on Mend—"Acceding to demands of the city health department that he permit his ill daughter to be treated by a physician, E. T. Taux, follower of a Hindu cult, avoided arrest today, and the girl, Tessie, aged 8, is expected to recover," say various newspapers. "The child is suffering from diphtheria, and the father would not allow an anti-toxin to be administered. Instead, he gave her cold water baths every half hour."

Blackmailing Schemes—The alleged blackmailing scheme against doctors recently given prominence in the public press is only one of several such schemes now more prevalent than usual. Most of these schemes are worked by a man and a woman working together. The woman—usually an attractive one—gets the "evidence" and the man makes the demand for hush money.

It is to the credit of the medical profession that they don't succeed more often than they do.

Doctors Are Needed—Medicine Outlook Is Bright—Under these headlines, a writer in the San Francisco Daily News discusses this subject in such a brief and remarkably clear and interesting manner that the article is reproduced.

"Never was the outlook for the young man better in medicine than it is today provided he is well prepared, never was the outlook worse if he is not well prepared. The young man who enters medicine today has made a great sacrifice to secure his diploma and his right to practice.

"He will have completed a high school training, at least two years in a university, four years in a well-recognized medical school and an internship of at least a year in a well-equipped general hospital.

"Furthermore he will have passed a licensing examination given by the State in which he practices. This will represent not only the actual cost of securing the education, which may be estimated at approximately $600 to $1000 per year for seven years, but also the sacrifice of the money that he might have made during that period.

"When the young man completes his internship there are, however, many careers open to him. Formerly the one career open to the graduate in medicine was the practice of general medicine.

"Today he may enter the field of medical research, he may elect to teach in one of the universities or medical schools, he may choose to enter the field of public health as an officer of the United States Public Health Service or secure some municipal, county or State position. He may take one of the openings in the army or navy medical service, he may choose to devote himself to industrial medicine as the employe of some of the great and far-sighted corporations which have seen the necessity for proper health protection of their employes. He may become a general practitioner, serving a great number of people in the capacity of ministering to their ills and advising them as well in the social problems of their lives, or he may continue his studies sufficiently long in a well established graded school for post-graduate medicine, to become a specialist in some of the special branches of medical science.

"From the time he sets himself up in general practice, or assumes some of the fixed positions mentioned, the physician may count on at least a living income. Many of the more energetic and successful men will earn, after the first year or so, incomes with a net return of $5000 to $8000 per year. The earnings of the successful specialist five to ten years after completing his training may approximate $10,000 or $50,000 per year. Many a successful general practitioner, away from the largest cities, may also reach these higher incomes.

"Nevertheless, the advice given to the young physician in the past will do for today. The young man who enters medicine with the hope of quick and large financial return is likely to be disappointed. The man who enters with the spirit of keeping abreast of the progress of medical science and rendering whole-hearted service to his community, is likely to reap a greater reward, not only in terms of dollars, but also in the respect and honor of his colleagues and of the community."

The Heart in Arthritis Deformans—In a series of eighty patients with chronic multiple arthritis examined by Ernst P. Boas and Philip Rifkin, New York (Journal A. M. A.), clear-cut infectious valvular disease was found in 17.5 per cent of all the cases, in 28 per cent of those patients in whom the disease started when they were under the age of forty, and in no person who was over forty at the commencement of his illness. The average age of these patients at the onset of their arthritis was twenty-eight years. Only thirty-four patients had normal hearts. There were three cases each of mitral insufficiency with cardiac hypertrophy, mitral stenosis and insufficiency, aortic and mitral insufficiency, and pericarditis with mitral insufficiency; one case each of aortic insufficiency and of aortic insufficiency with mitral stenosis and insufficiency. The frequency of arteriosclerotic heart disease and of cardiac enlargement in the older age groups is greater than one would expect to find in a control series. Twenty-six per cent of all cases, and 63 per cent of those patients who were over forty when the arthritis began gave evidence of this type of cardiopathy. The average age of these patients at the onset of their illness was 54.5 years. Hypertension was infrequent in this series, and in no case was it well marked. There were no systolic pressures over 180 mm. of mercury. It appears from this study that no particular form of chronic arthritis is constantly associated with a particular type of cardiac defect, and that, therefore, the cases cannot be grouped into different forms of chronic multiple arthritis, with corresponding cardiac defects. It is true that those patients in whom the onset of the illness was acute or subacute more frequently exhibited infectious valvular disease. However, these patients, on the average, were considerably younger than those in whom the onset was insidious. The average age at the onset of the arthritis of those with infectious valvular disease was twenty-eight years, and of those with arteriosclerotic cardiopathies, 54.5 years. The cause for the great frequency of arteriosclerotic lesions in the hearts of older patients with chronic multiple arthritis remains obscure. It is the rule for the heart disease to pursue a symptomless course in these patients. Indeed, in spite of the advanced nature of the valvular lesion, the patient is usually unaware that he has a cardiac defect. This is undoubtedly due to the fact that the enforced rest imposed on the patient by his joint disease spares the heart, by eliminating the necessity for the circulatory responses and adjustments that are ordinarily called forth by even moderate physical exertion. These observations give added support to the theory that chronic multiple arthritis (arthritis deformans) is caused by an infectious agent.

California Medical Association

MINUTES OF THE SECTION ON TECHNICAL SPECIALTIES

Ray Lyman Wilbur, M. D., Chairman
John C. Wilson, Secretary

Held in conjunction with the annual session of the C. M. A., in Los Angeles, May 14, 1924.

At a meeting of this section, Ray Lyman Wilbur, of San Francisco, was re-elected chairman, and John C. Wilson, of Los Angeles, secretary of the section for the ensuing year.

The California Association of Physiotherapists

Hazel E. Furscott, President
Hilda C. Rodway, Secretary

As a member of the Technical Specialty Section of the California Medical Association, this organization held its annual meeting on May 14.

Election of officers: Miss Susan Roen, 2422 Palm Drive, Los Angeles, was elected president; Miss Doris I. Neel, 603 North Hobart Boulevard, Los Angeles, vice-president; Mrs. Aline Brummelkamp, 808 Central Building, Pasadena, secretary and treasurer; Miss Hazel Furscott, Miss Catherine Wright, Miss Antoinet, and Miss Sarah Davis were elected members of the executive committee.

The minutes of the last annual meeting as well as the treasurer's report were read and accepted.

Two amendments to the Constitution were proposed and adopted, one to raise the standard of admittance into the Association, and the other to elect a president-elect for the next year.

During the convention, clinics were held at the Children's Hospital and the Orthopaedic Hospital, both of these proving very interesting and helpful.

Our president, Miss Hazel Furscott, opened the business meeting with the following address:

"The California Association of Physiotherapists is about to begin its fourth year. If in the future we make as many strides as we have in the past three years, I think that we may expect an organization that will give to its members a real service. There is no one here today who does not realize the fact that physiotherapy is an indispensable adjunct to all medicine—there are perhaps some in this group who overestimate its worth and consider it the panacea of all ills. Outside this group there are many who do not value it at all because they are entirely ignorant of properly administered physiotherapy. This organization should in its formative years look to neither right nor left. Its single goal should be the education of the medical world and its own members to what is sound rational physiotherapy. When it has accomplished this, it will be serving its members as a professional organization.

"It is very gratifying to look back over the past few years and realize that a meeting such as this one today could not have been possible less than four years ago. It is such meetings, as well as our local meetings and clinics, our effort to establish libraries and the mere fact of our becoming acquainted with each other that are helping to attain highly desirable results.

"In my opinion the greatest accomplishment of the year 1923-24 is the organization of the Los Angeles group of physiotherapists. The year presented many interesting programs in San Francisco, with such speakers as Doctors Markel, Ely, Wolfsohn, Simmon, Best and Musgrave and many in the South as well.

"A glance at today's program justifies the interesting observation that physiotherapy belongs to all medicine. It is, indeed, with a happy outlook that we can start the new year."

California Association of Medical Social Workers

Josephine Abraham, President
Sophie Mersing, Secretary

The annual meeting of the California Association of Medical Social Workers was held at the Biltmore Hotel, Los Angeles, Tuesday, May 13, 1924, as a section of the Technical Specialties Section of the California Medical Association. In the absence of the president, Mrs. Sophie H. Mersing, secretary and treasurer, presided.

The reports of both the president and secretary were read and applauded.

Dr. H. A. Stephenson, San Francisco, read Dr. Armstrong Taylor's paper entitled, "Influence of Medical Social Work on Obstetrics," which was discussed by Doctor Emge, of San Francisco.

Following a few introductory remarks on hospital social service as conducted by the Stanford clinics and San Francisco Maternity Auxiliary, Miss N. Florence Cummings presented a very interesting motion picture, "The Watchful Eye," which depicted New York hospital social service and convalescent work.

Dr. Sydney Smith, of Berkeley, gave an interesting informal talk on psychiatric social service and mental hygiene work as performed in Oakland hospitals and clinics. The social worker should be in close contact with the psychiatrist. Dr. Rogers, of Long Beach, added a few remarks and emphasized the importance of psychiatric work.

Dr. Percy Magan, of Los Angeles, presented a splendid paper entitled, "The History and Progress of Medical Social Service."

Dr. J. B. Cutter, San Francisco, discussed this paper, laying particular emphasis on home visiting. He stated that most dispensaries are makeshifts at best. The real help must be done in the home, built up from the bottom. The medical social worker is needed to reach the fundamental and vital stone. Doctor Cutter congratulated the chairman and her co-workers on the quality of the program and praised the type of work done by medical social workers.

No business meeting was held as no nominating committee had been named by the president. At the close of the session an invitation was extended to all present to attend a round table luncheon on the following day. There being no further business the meeting adjourned.

MINUTES OF THE MEETING OF THE RADIOLOGICAL SECTION OF THE CALIFORNIA MEDICAL ASSOCIATION

Held at the Biltmore Hotel, Los Angeles.
Monday, May 12, 1924, 2 p. m.

Meeting called to order by Secretary Dr. R. G. Taylor, Los Angeles. It was moved, seconded and carried that in the absence of the chairman, the secretary act as chairman. Doctor Taylor took the chair and the following program was presented:

X-ray of the urinary tract, with report of a case of congenital unilateral kidney. Francis B. Sheldon, M. D. Discussed by Doctors Heylmun, Hartman and Sheldon.

Secondary pulmonary hypertrophic osteoarthropathy associated with metastatic sarcoma of the lungs. Lloyd Bryan, M. D. Discussed by Doctors Ullman, Rodenbaugh, Heylmun and Bryan.

Metastatic carcinoma involving the abdominal, mediastinal and supraclavicular glands treated by X-rays. Well after one and one-half years. Henry J. Ullman, M. D. Discussed by Doctors Chamberlain, Rodenbaugh, Bryan, Ullman.

Tuesday, May 13, 1924, 2 p. m.

Simultaneous stereoscopic examination of the two mastoids. James B. Bullitt, M. D. Discussed by Doctors Bryan, Ullman and Bullitt.

Calibration of Roentgen therapy machines in California. W. Edward Chamberlain, M. D. Discussed by Doctors Rodenbaugh, Behne, Ullman and Chamberlain.

Radiotherapy in benign lesions of the uterus. Fred-

erick H. Rodenbaugh, M. D. Discussed by Doctors Bullitt, Behne, Sargent, Costolow, Ullman and Rodenbaugh.

X-ray diagnosis of disease of the nasal accessory sinuses with reference to sphenoid and ethmoid diseases. Robert A. Powers, M. D. Discussed by Doctors Ames, Taylor, Heylmun, Ullman, Bullitt, Rodenbaugh and Powers.

Roentgen therapy of uterine myoma during pregnancy. John D. Lawson, M. D. Discussed by Doctors Rodenbaugh, Sheldon and Lawson.

Thursday, May 15, 1924, 2 p. m.

Survey of non-tubercular chest lesions. Henry Snure, M. D. Discussed by Doctors Bramkamp, Howson, Kinney, Rodenbaugh, Snure.

An interesting case report of pulmonary infarct demonstrated by the Roentgen ray. Discussed by Doctors Snure, Rodenbaugh, Pierson, Bowman and Crow.

Biological effects connected with modern deep therapy. Kurt F. Behne, M. D. Discussed by Doctors Parker, Rodenbaugh, Ullman, Costolow, Crow, Chamberlain, Huggins and Behne.

Metastatic bone carcinoma. Lyell Carey Kinney, M. D. Discussed by Doctors Snure, Ullman, Rodenbaugh, Parker and Kinney.

After a general discussion of matters pertaining to the section, and plans for the program for next year, the annual election was held, and Dr. R. G. Taylor, Los Angeles, was elected chairman, and Dr. Robert Newell, of San Francisco, secretary.

The section adjourned until the 1925 session.

Observations in a Case of Jejunal Fistula—A case of high complete intestinal fistula offered Edwin P. Lehman and Harry V. Gibson, St. Louis (Journal A. M. A.), an opportunity for making observations on the functional activity of the upper intestinal tract, some of which have a bearing on modern interpretations of gastro-intestinal physiology. Of these observations, two stand out as worthy of especial comment. The first in importance is the time interval between the appearance of motor activity in the upper and in the lower loops. Here is evidence that the stimulus in the upper loop is carried across an anatomic and physiologic gap in the bowel to the lower loop, causing peristalsis there, although there is no stimulus whatever applied locally to the lower loop. This could hardly occur except by a central control mechanism, using the term to mean a mechanism coordinating the activity of separate segments of the bowel. No nervous impulse could have been transmitted across the gap. An electrical wave would have been transmitted without a time interval. Furthermore, a central mechanism, sending stimuli which originate, let us assume, in a filled secreting stomach to the various segments of the bowel progressively caudad, would send stimuli also through the severed autonomics running to the absent two feet of bowel. These lost impulses may be conceived to be represented by the time interval between the motor activity of the upper and the lower loops. Further evidence of a central control mechanism was seen in the constant appearance of motor activity in the upper loop, soon after food was injected into the lower loop. In any consideration of local versus central control of the gastro-intestinal tract, these observations must be kept in mind. No similar observations have been met in the literature. The second point of interest, which also does not appear to have been previously noted, is the effect of sodium chlorid on secretion and peristalsis. The marked activity of both under the influence of a weak saline solution (about double normal) by mouth was striking. The absence of marked effect of acid or alkali separately was noted. On one accasion, the salt was given when the patient was nauseated, with a prompt flow of secretion and a prompt relief of the subjective symptoms. This suggests a point of possible clinical value in re-establishing normal peristalsis when there is a tendency to reserve peristalsis.

COUNTY NEWS

Nearly all county medical societies are having vacations during the summer months and will take up their work in the fall with renewed interest. Officers are urged again to send in full reports of meetings and other activities.

LOS ANGELES COUNTY

Resolution Regarding Foot and Mouth Disease—The following resolutions were adopted by the Board of Councilors of the Los Angeles County Medical Association at the meeting held on June 23, 1924.

"Whereas, The State of California has been recently visited by a severe epidemic of foot and mouth disease, entailing the destruction of enormous numbers of animals, and

"Whereas, The epidemiological knowledge necessary for preventing the spread of this infection is incomplete and further investigations are forbidden in this country by the United States Department of Agriculture, and

"Whereas, We believe that investigation could be safely conducted in infected zones during an epidemic without increasing the danger of spreading infection, and

"Whereas, We believe that such investigation as outlined in the report of the Los Angeles County Medical Association's committee on foot and mouth disease might lead to important knowledge concerning the methods of transmission of the disease, therefore, be it

"Resolved that the Los Angeles County Medical Association, while it does not oppose the destruction of infected animals, does deplore the stringent restrictions upon investigation of this disease during an epidemic period and in infected areas, and it urges that before it is too late such investigations be either carried out or authorized under controlled conditions by the United States Department of Agriculture.

By order of the council.

HARLAN SHOEMAKER, M. D.
Secretary."

Norwalk State Hospital—Doctor Edwin Wayte has been appointed medical director of the Norwalk State Hospital, effective July 1, 1924, to succeed Doctor C. F. Applegate, who has been head of the institution for several years and has resigned. Doctor Wayte has been first assistant physician at the Southern California State Hospital, Patton, for several years, coming to the institution from Exeter, where he was engaged in private practice. He was formerly an alienist at the Minnesota State Hospital.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement (Reported by George Joyce Hall, secretary)—The regular meeting of the Sacramento Society for Medical Improvement was held June 17, 1924. Members present, thirty-three; visitors, four. President Drysdale presiding. Minutes of previous meeting were read and approved. Report of cases:

Due to the fact that the subject of the evening in symposium form was to be that of "Ectopic Uterine Gestation," it was most interesting to receive the report of the case of ectopic uterine pregnancy presented by Doctors Beattie and Harris, with the living baby, now two and a half years old, presented at the time. Doctor Beattie's report was, in effect, that the Japanese mother, approximately eight months pregnant, became critically ill; a tentative diagnosis, intestinal obstruction, was made, although neither he nor Doctor Harris felt justified in making more than an exploratory laparotomy. Doctor Harris then took up the report from the surgical standpoint. Japanese father, mother and two children being shown to the society, the one in question being the

younger. Doctor Harris reports he planned to operate on intestinal obstruction and Cesarian section at the same time, and to their surprise, upon entering the peritoneal cavity, found a knee was present. Dr. Harris stated that, fortunately for everyone concerned, the time of operation occurred apparently just as the membranes had ruptured in an abdominal pregnancy. In an effort to deliver the baby it was found difficult because the baby had grasped with his hands coils of the mother's intestines. Placenta attachment was as follows:

1. Posterior surface of the broad ligament.
2. To the wall of the pelvis on the left side.
3. To the meso sigmoid and sigmoid bowel.

This mother made an uneventful recovery and the baby is apparently perfectly normal now, being, as above stated, two and one-half years old. At the time of operation, Dr. Harris found that there were twelve such cases reported in literature. Operative findings showed the tubes to be apparently normal, as were also the ovaries, with the uterus slightly enlarged.

Dr. Beattie also reported a case of atresia of the esophagus with x-ray shown taken on the second day, the baby, of course, having died.

Subject of the evening was presented by Dr. G. N. Drysdale on "Ectopic Gestation," and with the use of excellent slides. Dr. Drysdale covered the subject fully, beginning with history considering the question of incidence and the large speculative subject of etiology, classifying that into two main portions:

1. Interference with downward passage through the tubes, and
2. Decidual reaction in the tubes.

After completely covering this portion of the subject, it was followed by discussion of pathology; various locations; methods of development in the tubes compared to development in the uterine cavity. He later took up the results of ectopic pregnancy, including tubal abortions and rupture, hemorrhage—hematocele. He also spent some time on ovarian pregnancy, giving Williams' four conditions necessary for true ovarian pregnancy.

1. Tumor site in the ovary.
2. Tube intact.
3. Connected with uterus by utero ovarian ligament.
4. Microscopically finding true ovarian tissue in many places around the sac.

Secondary abdominal pregnancy, primary abdominal pregnancy, and various freaks were also reported. Symptoms diagnosed and differential diagnosis was given at length, as was also subject of treatment both in unruptured cases and in ruptured cases, including types of operation. Abdominal pregnancy which has gone on for several months, was discussed. After the fifth month there is little added risk in waiting until the thirty-eighth week before operation. Methods of removing placenta were also covered. Auto-transfusion was mentioned; conservation of tube was considered. Dr. Drysdale thoroughly covered the subject at great length, and it was discussed by the following: Dr. Hall opened the discussion on etiology, followed by Dr. James on diagnosis, Dr. Von Geldern on pathology, Dr. Beattie on medical treatment, and Dr. Harris on surgical treatment. Subject was also discussed by Drs. Wahrer and Parkinson, and discussion was closed by Dr. Drysdale. This meeting was again demonstrative of the excellent type of papers recently being presented by the members of the Sacramento society, and shows the progressive effect of the president's desire to improve the scientific value of the meetings for the present year.

The applications of R. G. Soutar and Thomas Hagerty were voted upon, and both were unanimously elected as members to the society.

The application of Dr. Richardson was laid on the table for further investigation.

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—The society met June 3, at the Southern California State Hospital, Patton, with twenty-five members present and ten guests.

The program consisted of an excellent clinic by Patton Hospital staff.

G. Ben Henke, Ontario, was elected to membership.

SAN FRANCISCO COUNTY

St. Joseph's Hospital Staff Busy (by Sister M. Sylvia, superior) — St. Joseph's Hospital staff, San Francisco, held an "Obstetrical Night" on June 11. A. B. Spalding spoke on "Mortality in Obstetrics and Its Prevention." Most confinements are handled by general practitioner. Causes of death often result of criminal abortion and venereal diseases. Modern management of labor cases should begin, not in the prenatal clinic, but in the male adolescents, who should be instructed in venereal prophylaxis, so as not to infect mothers of the future. *Every doctor's office should be a prenatal clinic, where urinalysis, pelvimetry, and blood pressure should be given due attention; otherwise, independent nurses will take full charge, instead of acting under our direction.* Cesarian section in pregnancy between sixteen and twenty weeks is not advised, except if sterilization is desired. Cervical dilitation with bags is better. Manual dilitation is dangerous. All interference increases mortality, so natural processes must be given a chance. Prevention of cancer is an opportunity. At Lane Hospital every torn cervix is repaired eight days post-partum. In San Francisco, the death rate from cancer is highest; therefore, repair all torn cervices and examine every year after.

R. Knight Smith talked on "Operative Obstetrics." Forceps are used in one-fourth of all private cases at Sloane Maternity, New York. Indications are abnormality in shape or size of parturient canal, position or size of child, forces of delivery, and attachment of placenta. Vaginal examinations were denounced, until child has passed pelvic brim, abdominal and rectal examinations being sufficient. External pelvimetry is useful. Hydrostatic bag is most efficient, except in primiparas, where one cannot tell if baby can pass—even by pelvimetry. Better to induce early labor, where necessary, than to wait too long. If head is too big, don't use forceps. Conditions necessary are complete dilitation, major diameter able to pass brim and ruptured membranes; exception is funnel pelvis. Type of instrument has nothing to do with height of head. Tarnier forceps are not for high positions only. Any type can be used in any height. Generally better, if in doubt, to give mother test of labor, even in Cesarian section. Can wait twelve to twenty-six hours, but make no vaginal examinations. If instruments have been used or case is potentially infected and child is dead, craniotomy causes fewer deaths and mother can become pregnant again, as uterus is removed in the cases where section is employed. Cesarian section has mortality of 6 per cent. Incisions used are either one above umbilicus or other almost all below. Be sure all of placenta comes out, and that cervical canal drains. First stitch used enters cavity of uterus. 250 cc. fresh glucose solution and 1000 cc. Fiscer's solution with soda bicarbonate solution is fine for hyperemisis gravidarum; repeat in eight hours.

The program for August 13 will consist of a symposium on "Gastric and Duodenal Ulcer." "Diagnosis and Medical Treatment" will be presented by William Fitch Cheney; "Roentgenological Considerations," by L. B. Crow; and "Surgical Treatment," by J. H. Woolsey.

"When hanging was much in fashion a favorite field for pickpockets was in the crowds gathered to see other pickpockets choked to death."—J. H. Beal.

Utah State Medical Association

Editorial by J. U. Giesy, Associate Editor

On June 19, the members of the Utah Medical Association convened in the city of Logan for the 30th annual meeting, one of the biggest and best conventions ever held in the medical annals of the state.

One hundred and twenty members officially registered, and there were some who neglected to do so or forgot.

Through the 19th, 20th and 21st, many excellent and highly instructive papers were read.

Too much praise cannot be given to the Convention City's hospitality. The city was ours. The Eccles Hotel rendered most excellent service to our members and guests. Dr. Elmer G. Peterson, President of the Agricultural College, extended every welcome to the Association, and Prof. R. B. West kindly gave the free use of the Engineer Building for the meetings. Blackboards, lanterns and moving pictures were placed at the Association's service together with efficient operators for the latter, with great advantage in the course of the three days' meet.

While the scientific and business objects of the meeting were thus excellently provided for and carried through to a successful issue, there was no lack of the social side of the convention as well.

The Cache Valley Medical Society served an excellent basket luncheon at the Boy Scout Camp, fourteen miles up beautiful Logan Canyon. This was enjoyed by more than sixty members and guests.

The ladies were royally entertained at the Blue Bird on two or three occasions and were also taken for a ride up Logan Canyon and served with lunch. A reception by the President's wife, Mrs. Jos. R. Morrell, was well attended and was a most enjoyable affair.

The following officers were elected for the ensuing term:

President, Sol G. Kahn, Salt Lake City; President-elect, T. C. Gibson, Salt Lake City; First Vice-President, D. C. Budge, Logan; Second Vice-President, J. Cecil Clark, Provo; Third Vice-President, Charles Ruggeri, Price; Secretary, Wm. L. Rich, Salt Lake City; Treasurer, T. A. Flood, Salt Lake City; Councilors, R. R. Hampton, Salt Lake City; E. G. Hughes, Provo; W. L. Smith, Brigham City; Delegate to A. M. A., E. M. Meher, Salt Lake City; Alternate Delegate A. M. A., A. C. Behle, Salt Lake City.

The incoming President appointed J. U. Giesy of Salt Lake City Associate Editor of the California and Western Medicine for Utah.

Salt Lake City was chosen as the meeting place for the 1925 convention. The date was left for the Committee on Scientific Work to later announce.

I desire at this time to ask all secretaries of all county societies to forward to me under address of 512 Felt Bldg., Salt Lake City, the news of their societies, mailing same at such a date as to insure their receipt before the tenth of each month. I ask the co-operation of all secretaries with a view of making the Utah Department of California and Western Medicine a greater success. I wish also to call the attention of all our members to the fact that California and Western Medicine is furnished to the entire personnel of the State Association, without any personal cost outside their annual dues. Some of the members, we understand, are not fully advised of this fact. Let them now be so, and furthermore let them communicate anything which in their opinion may help to make the monthly news both entertaining and complete.

ANNUAL REPORT—TRANSACTIONS OF THE HOUSE OF DELEGATES, THIRTIETH ANNUAL MEETING, JULY 19, 20, AND 21, 1924.

All meetings held in Agricultural Engineering Building, Utah Agricultural College, Logan, Utah.

The House of Delegates of the Utah State Medical Association convened at 10 a. m., on Thursday, June 19, 1924.

Meeting called to order by the president, Joseph R. Morrell of Ogden; Wm. L. Rich, secretary.

Moved by Wm. L. Rich, seconded by R. R. Hampton, that, inasmuch as the minutes of the 1923 meeting were printed in full in our official magazine, "California and Western Medicine," and that it would take an hour or more to read them, that the reading of the minutes be dispensed with. Carried unanimously.

Roll call showed: Officers and councilors all present. Boxelder County, 1 delegate; Cache Valley, 2 delegates; Salt Lake County, 10 delegates, 1 alternate; Carbon County, 1 alternate.

Moved by J. C. Landenberger that Clifford J. Pearsall, alternate from Salt Lake County, be seated as a regular delegate to take the place of A. C. Behle. Motion seconded and carried unanimously.

R. R. Hampton moved that Charles Ruggeri, alternate from Carbon County, be seated as a regular delegate instead of Wm. T. Elliott. Seconded by John Z. Brown and unanimously carried.

Utah, Uintah and Weber County societies were not represented by either delegates or alternates.

The president announced that reports of officers and committees were in order, and the following reports were then given.

Report of the Secretary (by William M. Rich, Secretary).

Deaths—During the past year this association has suffered loss by death of three members: Dr. L. B. Laker of Eureka, who was our first vice-president for this year; Dr. James Lane of Salt Lake City, and Dr. Ralph T. Merrill of Logan; also a recent one-time member, Dr. Ross R. Anderson.

County Societies — One new County Society has been formed and added to our list of last year, making a total of eight component County Societies. The membership tabulated by counties and compared with last year, is as follows:

Boxelder, 8 (New County—four of these members were transferred from Weber County, thereby decreasing the members in the Weber County Society by four); Cache Valley, 17 (Same as last year); Carbon County, 12 (a decrease of 5); Salt Lake County, 221 (an increase of 21); Uintah County, 5 (a decrease of 2); Utah County, 43 (an increase of 12); Weber County, 41 (a decrease of 3); making a grand total of 347 (an increase of 31, or about ten per cent over last year).

This year the officers of the association have

visited the Cache Valley, Weber County, Salt Lake County and Utah County Medical Societies. Carbon County, Uintah County and Boxelder County did not receive official visits. The County Societies visited were active and progressive and seem to be doing a good work.

The Committee on Public Policy and Legislation has had something to do in national legislative affairs. As you are aware the National Congress passed two or three bills that were unjust to the profession—one the Harrison Narcotic Act.

As you are well aware, the profession has paid a per capita tax of $3.00 to the Collector of Internal Revenue for the past six or seven years. Before war the tax was $1.00 and as a war measure it was increased to $3.00. The Bureau of Legal Medicine of the A. M. A. and the various state associations protested against continuing the $3.00 tax. We also asked the Congress to extend to the medical profession the same rule that is applied to other businesses, i.e., the right to deduct from our income tax, traveling and hotel expense when attending medical conventions and taking post-graduate work. We also desired that earned incomes be taxed at a lesser rate than earnings from investments.

In spite of our many telegrams and letters to members of the Senate and the House, we did not succeed. The Congress did not deny the justice or right of our contention but virtually told us that our cause was just, but they could do nothing for us, because they needed the money.

We are also paying an annual registration fee of $5.00 to the state, for which it is questionable whether we get value received. We are, as a class, being discriminated against. We must endeavor earnestly, as an association and as individuals, to maintain our rights, both nationally and as citizens of this fair state.

The Committee on Public Policy and Legislation will give you a detailed report of both local and national interest, and I trust some enthusiasm will be aroused and some plans formulated that will help us maintain our rights.

The transfer from the Northwest Medicine to the California State Journal of Medicine was completed last August. The California Journal has now changed its name to California and Western Medicine, and I trust all of you are receiving it. Some of our members don't seem to realize that this journal is the official organ of this Association and that it is purchased by the Association for its members. Some of the new members are not yet on the mailing list, but their subscriptions will begin with the August issue and will continue thereafter as long as they remain in good standing. I believe the entire membership are agreed that the change has been a healthy progressive one. We are given a certain space in this Journal for Utah news and it often happens that little or no news, except from the Salt Lake County Society, is given the Journal. The officers of this Association desire every component County Society to send news to the Editor, Dr. W. E. Musgrave, Balboa Building, San Francisco, California, before the 20th of each month, for publication in the Utah section

The president-elect has appointed Dr. J. U. Giesy as Associate Editor for Utah for the coming year, but Dr. Giesy cannot know the news from the various component County Societies. It is, therefore, necessary for each County Society to send in their report once a month. Let us all unite in trying to make the Utah section worth while to its members and the profession at large.

Your attention is again invited to Hygeia. More diligence in interesting the public in this magazine will bring us large dividends in friends, and will be our most powerful weapon in combating ignorance and the cults. Also it will pave the way for fair and upright legislation in behalf of the general public good as well as the profession at large.

The secretary urges that the present House of Delegates consider the reduction of the dues paid to the State Association by the Component County Societies. The dues for the past two years have been $8.00 per member and your secretary suggests a reduction of $3.00 per member, making the component County Society dues $5.00 per member instead of $8.00. The State Association almost became bankrupt when dues were $4.00 per capita, and this increase during the past two years has made us stronger financially so that we are able to now get along with the reduction suggested.

The proposed amendments to our by-laws relating to changing the fiscal year to correspond with the calendar year has been published twice—once in the California and Western Medicine and in the present program, and is to be voted on at this session.

Officers to be elected are: President-elect, three Vice-Presidents, Treasurer, two Councilors for the First and Second Districts, Delegate and Alternate to the A. M. A.

Moved by R. R. Hampton that the report of the secretary be referred to the Reference Committee. Seconded and carried. President Morrell stated that this action on the reports would not be necessary after each report was given, inasmuch as they were all handed to the Reference Committee.

REPORTS OF THE COUNCILORS

R. R. Hampton, Chairman

Report on the Work of the Councilor of First District (by W. LeRoy Smith, Councilor, First District).—During my short term I have visited the Ogden meetings of the Weber County Medical Society and have found them well attended. The members have enjoyed regular meetings at which many valuable papers have been given. Everything was working harmoniously.

Upon inquiry I have found that the Cache Valley Medical Society is functioning better than ever and that they have had many scientific programs that have been appreciated by the members. They have been very busy making arrangements for the care and entertainment of the members of the Utah State Medical Association and all visitors and lady friends that will be in Logan during the time of the convention, June 19, 20, 21, 1924.

It has been my pleasure to organize a new unit in Boxelder County, known as the Boxelder County Medical Society. We started with eight charter members and have taken one more since that time. Now we have all the physicians in the county active members. Four of our members, however, have been members of the Weber County Society and they merely transferred their membership. The new societ has received inquiry from physicians in Malad, Idaho, who are anxious to join because there is no organization at any closer point.

Councilor of the Second District (by R. R. Hampton, Councilor, Second District).—Several meetings of the committee were held during the current year and the following business transacted:

That members of a county society who have reached the age limit and are carried as honorary members of the component county societies be paid for by each county society to the State Association in a sum equal to the cost of the official journal.

Expenses of G. L. Reese while acting as councilor for three years in attending the council meetings were paid in the amount of $99.50.

The fiscal year of this association be changed to the calendar year to correspond with the wishes of the American Medical Association, and, further, that the by-laws be amended.

The meetings of the University of Utah Medical School Advisory Committee were attended by the council and the discussions were entered into by the council.

The question of certain members of the Cache Valley Medical Society petitioning the members of

the Weber County Society for membership was denied.

Periodic health examinations of the general public was brought up and was referred to the Committee on Public Policy and Legislation, to be handled by the House of Delegates.

The Council accepts, with much regret, the resignation of Dr. Whalen, one of its members, who was giving up his residence in Ogden and moving to California.

W. L. Smith of Brigham City was elected by the Council to fill the vacancy created by the resignation of Whalen.

The Council also met with the Advisory Committee on Hospitals and took part in the discussions.

The meetings of the Salt Lake County Medical Society have been of very high grade and have had the largest attendance in the history of the organization. There has been an average of seventy people at each meeting.

Since the first of the year two of our members, L. B. Laker and James Lane, have passed on.

Next to the programs, probably the biggest work done by the Salt Lake County Medical Society has been the prevention of damage suits by the Medical Legal Committee, and their work has had a very potent effect upon threatened damage suits.

The Society is planning to have Dr. Ashoff, German Pathologist, as a guest on June 25th, and he will deliver a paper at that time.

There has been an increase of ten new members and we now have 219 in the Salt Lake County Medical Society.

Councilor of the Third District (by E. G. Hughes, Councilor, Third District).—I wish to submit the following report of the Third District. In this district there are three component societies of the State Association, viz.: Utah County, Carbon County and Uintah County. In these respective counties all of the regular men are members of their respective county societies. To the south of these counties there is no county medical society, and a few of the men in this part of the State have availed themselves of the opportunity to join the Carbon County and Utah County societies as to the nearest covering their location. We have men in Nephi, Mt. Pleasant, Milford, Salina, and Cedar City as members in the Utah County Society, and some of the men in Emery County belong to the Carbon County Society. The men in Richfield, Delta, Fillmore and Gunnison are without membership in any society and it seems to me that the State Association ought, through its organization, to interest the men in these outlying districts by utilizing the membership of the various component societies to extend a little service at suitable places, by meeting these regular men of the profession who are apparently professionally dead as far as the various medical organizations are concerned, and extend in part some of the benefits derived by those who meet together often and discuss their common problems. No doubt some of these men become inert to the things that confront them from time to time and it is not only they that suffer but the communities in which they practice. Automobile service and convenience in the proper season could reach these men and get them in touch with a bigger service they could render humanity.

Reaching these men is a problem. I merely mention the suggestion of getting them interested and then members of some society, and when this is accomplished they may help themselves to become more serviceable. I believe it is the duty of the State Association through its component societies, to interest all men to become members that they may be made better men in being schooled in the ethics of the profession by mutual contact.

Members as a whole in this district are good citizens and conscientious practitioners. Some are inclined to be a little too zealous and have thoughtlessly done unethical things. There have been some rumors of reporting these matters to the Censor Committee in the Utah County Society, but no definite action has as yet materialized. It is to be hoped that the offenders may see the folly of their ways and repent, so that 100 per cent harmony and peace may prevail as usual.

REPORT OF DELEGATE TO A. M. A.

By Dr. E. M. Neher

Your delegate attended the 75th annual session of the American Medical Association, held at Chicago, and wishes to submit the following report:

The attendance of about 8,000 is said to be as large as any of the previous sessions. The sectional meetings and scientific exhibits were held on the Municipal Pier, which had been splendidly transformed into rooms suitable for this purpose.

The House of Delegates met in the assembly room of our new building, where luncheon was provided for the members. The house was called to order by its speaker, F. C. Warenshuis. Following the report of the Committee on Credentials the executive officers addressed the house. Speaker Warenshuis made a very forceful address, calling the attention of the delegates to the fact that they are the law-making body of the American Medical Association and that their interests should not be individual or sectional, but that they should be mindful of the best welfare of the membership of the entire Association. He recommended to the House of Delegates during its session that they go into a committee of the whole for an hour or longer as may be deemed necessary in order to candidly and frankly discuss important questions. His recommendation was accepted and on Tuesday afternoon the house went into a committee of the whole, spending most of the time on the supplementary report of the Judicial Committee in reference to life institutes and like institutions which have for their purpose the jobbing of the physicians' service. It was shown that these life extension organizations are making capital of the recommendation urging yearly physical examinations which was passed at the previous session. It was further shown that these so-called life-prolonging institutes had by false representation, such as being altruistic and philanthropic, secured the endorsement of a number of prominent physicians and surgeons of our country. After much discussion and due deliberation the house passed a resolution favoring the practice of yearly physical examinations which are to be made by their family physician and such help from specialists as he (the family physician) may deem necessary. They also went on record condemning, in the strongest terms, these jobbing institutes and likewise the physicians who continue to sell their services to them.

We are enclosing a copy of the supplementary report of the Judicial Council. We believe this matter is one of very great importance to the medical profession of our State and that it should be brought to their attention at your meeting.

The president-elect, William Pusey, gave a very forceful address on the trend in medical and nursing service. He thinks the nursing problem can be solved by reducing the educational requirements, shortening the course by giving them more training and less drudgery in the hospitals. This will greatly increase the number of girls to take up training.

President Pusey also suggests the following as a remedy for the high cost and long course in securing a doctor's degree:

1—The present accredited high school education can be made sufficient preliminary training.

2—Three years of medical training.

3—Hospital training of not less than eighteen months.

4—Proper selection of students on the ground of fitness.

In view of the fact that such a small proportion of high school students study medicine, we could not

expect them to change their course of study to suit the pre-medical student, and furthermore, since nearly all our good medical schools are now an integral part of some university, we are unable to see just how Dr. Pusey will be able to put his plan into practice.

Retiring President Ray Layman Wilbur gave the House of Delegates some good advice on the practice of medicine, urging the members of the profession to keep abreast with the advancement of civilization.

The secretary, Olin West, made his report, showing the membership had grown during the past year and now contains over 90,000 members. It is interesting to note that in our State we have 497 physicians registered, with only 356 members of our State Association. This is a good field for missionary work.

The trustees made a most interesting report. Their financial statement showed the income for the past year to be considerably over one million dollars, with the largest share of it coming from the advertising department.

"Hygeia" was published at a loss of $38,000, but the trustees deem its service so valuable to the public and profession that they propose to continue to publish it, and figure it will become self-supporting within the next five years. On January 1, 1925, the trustees are starting a new journal, termed the "Archives of Otolaryngology."

The new home of our association is a splendid six-story fire-proof building 100x160 feet. We should all be proud of it.

The last session of the House of Delegates was devoted to the election of officers and the final report of committees.

The following officers were elected for 1924 and 1925: President-elect, William D. Haggard, Nashville, Tenn.; Vice-President, E. B. McDaniels, Portland, Oregon; Secretary, Olin West, Chicago; Treasurer, Austin A. Hayden, Chicago; Speaker of the House of Delegates, Frederick C. Warenshuis, Grand Rapids, Mich.; Vice-Speaker, House of Delegates, Rock Sleyster, Wauwatosa, Wis.; Board of Trustees (term expires 1927): Edward B. Heckel, Pittsburgh, Pa.; Thomas McDavitt, St. Paul, Minn.; term expires 1928, J. H. Walsh, Chicago; Judicial Council: M. L. Harris, Chicago; Council on Medical Education and Hospitals: Merritt W. Ireland, Washington, D. C.; Scientific Assembly: F. P. Gengenbach, Denver, Colo.

There were about twenty physicians registered from Utah. Owing to the great distance to the convention from our State we believe this speaks very favorably for our profession.

Your association has the honor of having your delegate appointed a member of the Committee of Reapportionment.

REPORTS OF COMMITTEES

Report of the Committee on Scientific Work (by Clarence Snow, chairman; M. M. Critchlow, vice-chairman; Ernest Van Cott, William L. Rich).—Clarence Snow, chairman of the committee, being absent from the State, has authorized me to give the following report:

Your committee had its first meeting last February and decided to hold the annual meeting of the State Association on June 19, 20, 21, 1924, hoping that we could get some of the speakers at the Northwestern meeting to stop off here en route to Vancouver, and also that we could get some California men who would be returning from the meeting of the American Medical Association in Chicago. We were partially successful, inasmuch as it was possible to secure the services of Dr. L. G. Rowntree of the Mayo clinic, and Dr. A. S. Warthin of the University of Michigan. The latter has been brought here at an expense of about $50, which was authorized by the Council.

Letters were written to several men who are giving papers in Vancouver next week. Some of these men did not reply and others stated that it was impossible for them to give papers this year, but would be glad to be at our service in the future. These letters are on file and should prove valuable to future committees.

Seven meetings in all were held and the speakers as listed on the program were obtained. Some eminent men are lecturing at the summer school at the Utah Agricultural College, so it was possible to have them on the program at no expense. For this your committee wishes to thank the officers of the Utah Agricultural College.

Just as the program was going to press it was decided to give George M. Fister a place on the program, inasmuch as he had some very interesting and important data on "Hay Fever."

Report of the Committee on Arrangements (by D. C. Budge, chairman).—Pursuant to the action of the association at the last meeting, designating Logan as the city for the thirtieth annual convention to be held June 19, 20, and 21, a consultation with the proper officials has been held, various committees have been appointed and some of their duties defined.

Please be advised:

Committee on Program—Composed of the officers of the Association.

Committee on Arrangements—This communication is evidence of the duties and activities of this committee.

Committee on Place of Meeting and Equipment—Through the courtesy of Elmer G. Peterson, president of the Utah Agricultural College (who, by the way, manifests keen interest and hearty co-operation) the Agricultural Engineering building and the college cafeteria have been tendered for our use and patronage. We will be provided with a lecture room, an exhibit room, a dark room, a lantern and screens. Signs will be conspicuously placed indicating the buildings and parking places.

Committee on Hotels and Transportation—Hotel Eccles has been secured as hotel headquarters. Reservations have already been made for our special guests who take part on the program. Cards have been sent to all members requesting that they make immediate reply so that reservations can be made for them. Transportation from hotels to the convention building will be provided for all who have no transportation facilities of their own.

Committee on Banquet and Entertainment—Arrangements have been made for the banquet at Hotel Eccles and for a basket luncheon in Logan Canyon. Program and toasts for the banquet have been assigned. Cards have been sent to all members requesting that they make early and immediate plate reservations for the banquet. If replies are made promptly no one will be disappointed. The luncheon in the canyon is tendered with the compliments of the Cache Valley Medical Association.

Committee of Ladies for Lady Guests—Needless to say that this committee has been busy. They have already completed all arrangements on their part. All they need now is lady guests to work upon.

Committee on Registration—A room at convention headquarters will be provided for registering, where you will receive your badges and credentials. A stenographer will be at your command.

Public Meeting—A meeting for the general public has been arranged for at the Tabernacle for Friday, June 20, at 8 o'clock p. m. Proper publicity and advertising of this meeting will be attended to.

Logan in June is a place of beauty. Her people welcome your coming and hope for a large attendance. While here the city will be yours and all things therein will be yours, for the asking.

The Logan Chamber of Commerce, the Rotary Club and the Kiwanis Club are all co-operating to making your convention a success.

The Cache Valley Medical Society, together with all the citizens of this valley, feel highly honored

that this convention is being brought to Logan. This being the first time that we have been thus honored, during the history of the association, we hope to prove our hospitality and to conduct ourselves, as a host city, so that you will feel anxious and happy to come again.

Committee on Necrology (by D. L. Barnard, chairman).—Since our last meeting in June, 1923, the Association has lost three of its members who were men of high character, one of them being our vice-president.

Your committee has compiled brief notices of each, also notice of the death of one other who, though not a member at the time of his death, had been one of us for several years. These notices are herewith respectfully submitted:

LASHBROOK BRYCESON LAKER

On Thursday, February 7, 1924, there passed from us a vice-president of this association, Dr. Lashbrook Bryceson Laker, a prominent physician of Eureka, Utah.

All the members of the association were deeply shocked over the death of Dr. Laker, for he was known and loved and respected by all. He was especially well known by the men of the Salt Lake County Society, of which he was a member, and, although he lived in Eureka, he rarely missed a meeting of the Salt Lake Society, where his genial personality made him welcome in any group.

Dr. Laker was born November 6, 1872, in St. Charles, Idaho, the son of Lashbrook and Anna Bryceson Laker. After completing his preparatory medical work in the University of Utah he entered Rush Medical College, where he was graduated in 1903. He served his interneship in Charity Hospital, Chicago. Since 1905 he has been practicing medicine in Eureka, Utah. He served there as physician and surgeon for the Denver & Rio Grande Western Railroad, the Salt Lake & Los Angeles Railroad, and various mining companies. He was for many years a Fellow of the American Medical Association. At its meeting in June of last year the Utah State Medical Association chose him vice-president and he served in this capacity to the date of his death.

Dr. Laker is survived by his wife, Grace Maude Spencer Laker, and by the following brothers and sisters: Mrs. J. A. Sutton of Salt Lake, Mrs. H. H. Dalrymple of Paris, Idaho, and John, Joseph, Daniel, Willard, Nellie and Minnie Laker, all of St. Charles, Idaho.

The following resolution has been prepared:

Whereas, By the death of Dr. Lashbrook Bryceson Laker, who died February 7, 1924, this Association has lost one of the most beloved, devoted and conscientious members it ever had, and one who at the time of his death was its Vice-President, a gentleman, physician, friend; be it

Resolved, That the Utah State Medical Association assembled this 19th day of June, 1924, express deep sorrow and sympathy to the wife and family of Dr. Laker, for we, as well as they, have sustained a loss of a true friend. The community has lost a faithful physician and a real man; be it further

Resolved, That these resolutions be spread upon the minutes of this Association and that a copy be sent to Mrs. Laker.

JAMES LANE

Dr. James Lane, a member of the Utah State Medical Association, and a practicing physician of Salt Lake City, died on March 18, 1924.

James Lane was born in Ireland in 1858. He became a licentiate of the Royal College of Surgeons of Ireland in 1882, and of King's, Queen's College of Physicians of Dublin in 1883. He came to America and was licensed here in 1903. After practicing in Wyoming a few years he came to Salt Lake about fourteen years ago.

Dr. Lane had very few intimate friends among the members of the society, but is described by one of our members who knew him very well as a very fine character, quiet, diffident and very capable, a gentleman in the finest and truest sense of the word.

Dr. Lane never married, but is survived by two sisters, Mrs. J. P. Megeath and Miss Rose Lane, both of Salt Lake City.

The following resolution has been prepared:

Whereas, By the death of Dr. James Lane the community has lost a skillful physician, the Association an honored member, and his friends have lost one whom they held in the very highest esteem; be it

Resolved, That the Utah State Medical Association assembled this 19th day of June, 1924, express our sorrow and sympathy to the family of Dr. Lane; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of the Utah State Medical Association, and a copy sent to the family of Dr. Lane.

ROSS R. ANDERSON

Dr. Ross R. Anderson, a former member of this Association, died after a long illness, on November 9, 1923.

Dr. Anderson was born in Manti, Utah, April 23, 1879. After preliminary education received in the public schools and in the L. D. S. University, Salt Lake City, he entered the College of Physicians and Surgeons of Baltimore, where he was graduated June 5, 1905. Returning immediately to Salt Lake City, he was for two years Professor of Pathology and Bacteriology in the University of Utah. He also served as Pathologist to the L. D. S. Hospital of Salt Lake City, and practiced his profession there until 1910, when he moved to Mt. Pleasant. He returned to Salt Lake in 1912 and again engaged in the practice of surgery. In November, 1922, he moved to Los Angeles and there took up the practice of surgery, which he followed until seized by illness a few months later. He returned to Salt Lake October 14, 1923, and died there November 9, 1923.

Dr. Anderson is survived by his wife, Euphemia Olson Anderson, by three sons, J. Ross, Elliott and Wm. A., who now reside in Salt Lake City. He is also survived by his mother, who lives in Manti, and by three sisters and three brothers: Mrs. Edward Reid, William Anderson and Henry Anderson of Manti; Mrs. Girard of Salt Lake City; Mrs. E. Funk of Emery County, and Frank Anderson, who lives in Colorado.

The following resolution has been prepared:

Resolved, That the Utah State Medical Association assembled this 19th day of June, 1924, take this means of preserving the memory of a former member of this Association, and that the Association express its keen appreciation of the loss suffered by Mrs. Anderson and her sons, and does hereby express our heartfelt sympathy to her and them; be it further

Resolved, That these resolutions be spread upon the minutes of this Association and that a copy be sent to the immediate family of the deceased.

RALPH TEAUCUM MERRILL

Dr. Ralph T. Merrill was born in Smithfield, Utah, on June 22, 1872. He was the son of Ralph T. and Matilda Collett Merrill. His death occurred December 17, 1923.

Dr. Merrill was educated in the Utah Agricultural College and in Brigham Young College in Logan, Utah, and in the Chicago College of Medicine and Surgery, where he took his degree in 1910. He practiced in Smithfield, Utah, up to the time of the entry of the United States into the recent war, when he promptly offered his services to his country. He served as a medical officer for about two years, being stationed at Fort Riley, Fort Crook and Fort Snelling. He was discharged with the rank of Major.

Before his entry into the army and immediately after his discharge, Dr. Merrill studied diseases of the eye, ear, nose and throat in Chicago, and afterwards practiced that specialty in Idaho Falls, Idaho, and in Logan, Utah.

One does not often encounter a history of a recently deceased physician where one finds such a marked impression made on his colleagues as has been found in the case of Dr. Merrill. During his days of patient suffering last year, especially while he was in the hospital, his splendid soul shone forth so that his own physicians and other medical men

with who he came in contact, said: "He is the best man ever."

Dr. Merrill is survived by his mother, his wife, Mary Plowman Merrill, and by the following children: Gladys, Barbara, Ralph DeMar, Harrison P., Edgar Christian, Louis John, and Leon Collett, all of whom reside in Smithfield, Utah.

Dr. Merrill leaves many friends who mourn his loss, both among his patients and among the social circles with which he came in contact, notably Logan, Post No. 7, American Legion.

The following resolution is offered:

Whereas, By the death of Dr. R. T. Merrill this Association has lost a loyal member and the community has lost a genuine man; and

Whereas, the deceased so promptly gave his services to his country in time of need and his loving wife and children so cheerfully sacrificed their own desires and seconded this service; be it

Resolved, That the Utah State Medical Association assembled this 20th day of June, 1924, do express heartfelt sorrow and sympathy to the wife, children and mother of Dr. Merrill, and do assure them of the keen appreciation of the many services rendered by him to society; and be it further

Resolved, That these resolutions be spread upon the records of the Association and that a copy be sent to the family of the deceased.

Treasurer's Report from June 20, 1923, to June 18, 1924 (by F. L. Peterson, Treasurer).

Receipts

Balance in Bank June 20, 1923			$1,698.02
8-27-23	From Entertainment Committee	$ 14.50	
8-27-23	Utah County Medical Society	40.00	
10- 2-23	Post Graduate Course (Dr. Dock)	521.36	
2-19-24	Salt Lake County Med. Society	144.00	
3-19-24	Weber Co. Med. Society dues 44 members	352.00	
3-28-24	Cache Valley Med. Society dues	136.00	
3-28-24	Carbon Co. Med. Society dues	88.00	
3-28-24	Uintah Co. Med. Society dues	32.00	
4- 3-24	Utah County Med. Society dues	344.00	
4- 3-24	Salt Lake Co. Med. Society Dr. Ashby & Geo. Smart 1923 dues.	16.00	
4- 3-24	Salt Lake County Med. Society 213 members' dues 1924 and four honorary members at $2.30 each	1,713.20	
5-20-24	Weber County Med. Society reinstating Dr. Whalen	8.00	
5-20-24	Carbon County Med. Society reinstating Dr. Bruckheimer	8.00	
5-20-24	Salt Lake Co. Med. Society two members	16.00	
5-20-24	Boxelder County Med. Society	32.00	
6-18-24	Boxelder County Med. Society	8.00	
6-18-24	Salt Lake County Med. Society	8.00	
6-18-24	Coupons from bonds	12.75	
Total Receipts from societies, bonds, etc.			3,493.81
Total Receipts for the year			$5,191.83

Disbursements

6-23-23	Dr. W. E. Musgrave, 310 subscriptions to "California and Western Medicine	$620.00
7- 3-23	Telegrams for State Meeting	4.62
7-12-23	University of Utah (running stereopticon)	6.00
7-12-23	E. Hollings, Exhibit cards	6.00
7-12-23	Hotel Utah—entertainment of Guests at State Meeting	119.00
7-19-23	Entertainment of wives of guests at State Meeting	6.50
7-19-23	Gardiner Printing Co. (Printing for Dr. Dock's course)	27.50
8-23-23	Gardiner Printing Co. (Additional printing for Dr. Dock's course)	34.50
8-23-23	Gardiner Printing Co., 100 tickets	3.50
9- 7-23	Dr. Wm. L. Rich, Secretary (salary, stamps, stationery, telegrams, telephones, etc.)	208.32
9- 7-23	F. L. Peterson, Treasurer (salary, postage, stationery, etc.)	28.25
9-27-23	F. L. Dust Co., Binding Transactions	3.50
9-27-23	Gardiner Printing Co., letterheads	5.75
10-22-23	Utah State Medical Association Savings Fund, 4 per cent from Dr. Dock's course	521.36
9-28-23	Billings Stenographic Service	55.87
12-22-23	Billings Stenographic Service	10.66
12-22-23	G. L. Rees (expenses connected with Council Meetings)	99.55
12-26-23	Dr. W. E. Musgrave, 6 months scriptions to "California and Western Medicine" for fifteen members	15.00
3-26-24	Billings Stenographic Service	1.62
3-24-24	American Medical Directory	15.00
4- 1-24	Dr. Wm. L. Rich, Telegrams	7.60
4- 1-24	Earl M. Crandall, Bond of Treasurer	2.50
5-17-24	Dr. Wm. L. Rich, telegrams, index cards, brief cases, etc.	13.71
6- 3-24	Billings Stenographic Service	21.11
12- 3-23	F. L. Dust—(binding work)	.75
	Total Disbursements	$1,837.17

Recapitulation

Balance on hand in bank June 20, 1923	$1,698.02	
Receipts from June 20, 1923 to June 18, 1924	3,493.81	
Total Receipts		$5,191.83
Disbursements from June 20, 1923 to June 18, 1924		1,838.17
Balance on hand in bank June 18, 1924		$3353.66

I also carry for the Association three Hundred Dollar Bonds of the Second Liberty Loan of the U. S., converted 4½ per cent Gold Bonds of 1927 to 1942 with coupons attached from Nov., 1924, to Nov. 15, 1942. Also a savings account in the name of the Utah State Medical Association for $1,197.62, the proceeds from the Dr. Brooks and Dr. Dock courses.

Committee on Public Policy and Legislation (by John Z. Brown, Chairman).—The important legislative work of your committee on "Public Policy and Legislation," since our last session, was that done in connection with our Senators and Representatives in Washington during the consideration of the Federal Revenue Act of 1924.

A united effort was made by all the physicians of the United States, through their State Medical organizations, to induce Congress to amend the Harrison Narcotic Law by reducing this tax from $3.00 to $1.00. This would restore it to a peacetime basis and relieve the doctors of a tax greater than is necessary to give the Federal Government jurisdiction for the purposes of the act.

In the second place, Congress was urged also to amend the revenue law to enable the physician to deduct traveling expenses incident to attendance at meetings or medical conventions for purely scientific study, and to deduct the expenses of postgraduate studies, in computing his Federal Income Taxes, a right which is now denied him.

In this active campaign we worked under the direction of and in co-operation with the Bureau of Legal Medicine and Legislation of the A. M. A. in Chicago, of which Wm. C. Woodward is chairman. The committee sent letters and telegrams to Senators Smoot and King and to Representatives Leatherwood and Colton, fully explaining the wishes of the profession. Letters were also sent to all the component county medical societies of Utah requesting them to do likewise. Physicians from different parts of the State were also communicated with and urged to write individually to our Utah men in Washington.

After the House of Representatives had passed the bill without making the desired amendments, we directed our efforts to the Senate, focusing the same more particularly on the Senate Finance Committee.

Wisconsin, Connecticut, Kansas, Indiana, Pennsylvania, West Virginia, Mississippi, Oregon, North Carolina, New Mexico, Illinois, Kentucky, Rhode Island, Missouri, Massachusetts each has a Senator on this committee, while Utah is represented on this important committee by both our Senators, with Reed Smoot, our senior Senator, as chairman. For this reason the A. M. A. leaders in Chicago looked to the Utah State Medical Association to make a vigorous effort in this direction. Copies of all letters and telegrams, which we received from Washington, were promptly forwarded to Dr. Woodward in Chicago, and suggestions asked for were freely given, but in spite of all the efforts of the united profession the law was not changed. Our appeals

fell on deaf ears, and the Federal Revenue Law remains exactly as it was before. We believe, however, that the medical profession of the country is to be congratulated for the vigorous fight which was made.

That the efforts of the Utah State Medical Association were appreciated by the A. M. A. leaders in Chicago is evidenced by the last letter your committee received from Dr. Woodward, in which he says:

"I thank you for your letter of April 18, inclosing a copy of a letter from Senator Smoot relative to the proposed abolition of the war tax imposed on physicians under the Harrison Narcotic Act. It is interesting to note that Senator Smoot merely reports that the tax is to be continued, without suggesting any reason why it should be continued. My impression is that he is a better logician than some who have undertaken to defend this war tax, and so realized that there was no argument that could be presented in support of it that could not be used with equal or even greater force to require the continuance of all war taxes whatsoever. For the present we seem to have lost out, but another time we may be able to do better.

"The Utah State Medical Association has certainly done its part nobly. Its activity in this matter has been greatly appreciated. (Signed) Wm. C. Woodard, Executive Secretary, Bureau of Legal Medicine and Legislation."

Coming now to the conditions that concern us locally, your committee considers it a duty to inform you of the operation of the present Medical Practice Act. As we are so closely allied with the professions of dentistry and pharmacy, representatives of your committee held conferences with the officers of these two organizations, the idea being to get these three professional groups, with perhaps the nurses and others together representing as they do a great many voters, so when future problems confront us we can speak to our public officials, whether they be state officials, legislators, county commissioners, or city officials, in a manner that is sure to have influence. It is well known that politicians have much respect for large groups of voters.

James R. Calvert, president of the Utah State Dental Society, and President Eugene L. Wade of the State Druggists' Association, are both very enthusiastic over the proposition.

Last Monday, President Wade and Mr. Flashman, from the Druggists' Association, together with a representative of your legislative committee, had an interview with Mr. J. T. Hammond, head of the Department of Registration at the State Capitol, and we have the following information to present:

There are ten professions and vocations included in this department, with registration fees as follows:

Doctors, $5.00; Dentists, $3.00; Registered Pharmacists, $2.00; Nurses, $1.00; Veterinary Physicians, $2.00; Embalmers, $2.00; Barbers, $1.50; Accountants, $5.00; Architects, $5.00 and Optometrists, $2.00.

The lawyers do not pay a registration fee. A fee is also paid when an applicant takes an examination or is licensed by reciprocity.

The director is required by law to turn all moneys collected into the State Treasury. The biennial income approximates $23,000. The department is allowed $17,916 each two years for operating expenses; of this the Registrar receives a salary of $3000, with $1300 for a clerk. Added to this is the amount he pays to the various examiners, leaving very little for inspectors, **and nothing for law enforcement.** In other words, under the law, he is not even allowed to use all the money he collects to enforce the provisions of the department, a balance of about $8000 being kept by the State Treasury. There has been one conviction of an unlicensed practitioner during the present year.

There are none of the so-called "Diploma Mill Graduates" registered in Utah. Fifty of such persons have applied but were promptly rejected. The department keeps a careful record of each physician registered, together with the school from which he was graduated, as well as a record of his pre-medical education. At present there are 560 physicians and surgeons registered in Utah.

In a recent conversation I had with His Excellency Governor Mabey, these things were discussed, at which time I told him the doctors do not like to pay a special tax in addition to regular taxes all citizens are required to pay. He stated that he knows this law is not ideal, and that the administration is anxious to co-operate with us for its improvement.

In order that we might know something about this problem among our neighbors, both near and far, your committee sent a brief questionnaire to the secretary of each of the fifty-four State Medical Associations, comprising the A. M. A. To date replies have been received from all except the South Dakota, Vermont, Virginia, Philippine Islands and Porto Rico. In these fifty-four states and territories only these seven, Alaska, California, Delaware, Georgia, Idaho, Louisiana and North Carolina require their physicians to pay an annual registration fee.

In Arkansas, the city of Little Rock levies a "City Privilege Tax" on physicians.

Illinois has a State Department of Registration and Education, for which there is appropriated from their State Treasury for each biennium the sum of $262 for maintenance.

Connecticut, Maryland and New York report as follows:

In Connecticut the physicians register annually by card but pay no fee. In New York a registration bill was introduced in the Legislature, was backed by the State Medical Society, but did not pass.

The physicians in every state and territory oppose such a tax. Almost without exception in all the states, there is little or no enforcement of law preventing quacks, charlatans and uneducated people from practicing the healing art. F. J. Pinkerton corresponding secretary of the Medical Society of Hawaii, says:

"Thus far this territory has had little or no success in regulating the practice of the healing art among quacks, charlatans, and uneducated people. Some few years ago several prominent citizens went before the legislature in support of a chiropractic bill which permits them to practice almost unlimitedly in this territory. Most of us are thoroughly convinced that they are actually practicing medicine, but it is hard to get evidence against them and I doubt very much if they could be convicted if proof was taken before a jury. Two years ago one magnetic healer and one natureopath were arrested and fined twenty-five dollars each for practicing medicine without a license.

"You must not lose sight of the fact that in Hawaii we have colonies of almost every race of people, and especially the Orientals. They have their own peculiar ideas, are very gullible, and will employ anyone who hangs out a shingle. At present there is no money appropriated for the business of running down fakers. While this duty is within the province of the Board of Health, the Board claims that they have no money for such a purpose."

The present attitude which some have toward physicians is due in a measure to the propaganda of quacks and charlatans, who pose as being persecuted by us. Dr. Frank Billings, in the A. M. A. Bulletin for February, says: "So long as we look upon the cults as competitors in medical practice, just so long will they flourish."

Another contribution to this same attitude of the public is our lack of loyalty to each other. How often do we hear this expression: "He has no business to treat a case." It is needless to say that such a statement by one physician about another makes a deep impression on the layman who hears it.

Politicians and "would be" philanthropic persons have learned that public health and welfare activity is a fruitful field to cultivate for private gain, and along with their pernicious undertakings come abuses of charity.

"Usurption of state powers by our Federal Government is one of the most serious problems of Democratic government America has to face today," says James Harvey Teller, Chief Justice of the Supreme Court of Colorado, who delivered an address on "Liberty and Law" at the recent annual dinner of the Utah State Bar Association.

This encroachment also applies to matters of

public health that should be under the control of the various state governments, which are amply able to care for the same.

In the face of present conditions we must be alert to our responsibilities and our rights as citizens. If we take the middle of the road, look every man in the face, and insist on, as well as stand for, a square deal, impress on our friends the fact that ours is a life devoted to the "quest of knowledge" that will relieve the sick and suffering, I am sure we will have influence with the people and our efforts will not be in vain.

Advisory Committee on Hospitals (by Ezra C. Rich, chairman).—A meeting of the committee was held at the Alta Club, Salt Lake City, April 5, 1924, with the following members present: Ezra C. Rich, chairman; A. C. Behle, J. W. Hayward, J. W. Aird; also President J. R. Morrell and Secretary W. L. Rich of the State Medical Association.

After a discussion, Ezra C. Rich was appointed to meet with the Utah Hospital Association and represent the committee in any work thought necessary.

On April 25, 1924, Dr. Rich attended the annual meeting of the Utah Hospital Association and read a paper entitled "What Should Be Expected of the Small Hospitals." Mr. W. W. Rawson, President of the Association, was appointed to represent the Hospital Association and to work with Dr. Rich and the State Board of Health in an effort to make a survey of the small hospitals. This work is only begun.

We have sent to each hospital under fifty beds the following questionnaire:

Name of Hospital; How many beds in Hospital; Is a graduate nurse in charge; What equipment do you have in laboratory; Who does your laboratory work; What make of sterilizers used?

We have received several answers and believe with the help of the State Board of Health in the next year a complete survey can be made of the small hospitals of the state. We recommend that this matter be handled through the Utah Hospital Association and that every hospital be urged to join the Association and get the spirit of hospital improvement.

Committee on Professional Welfare and Ethics (by J. C. Landenberger, chairman).—During the past year there have been five malpractice suits tried at courts; four were won, one lost and there have been three or four compromised. There are about six pending. This is a substantial improvement over a year ago and if our earnestness in the matter continues it will only be a short time before the number of unreasonable malpractice suits dwindles to a minimum.

We deplore the fact that at present there is no way of getting definite and accurate information as to pending suits, because the doctor who is threatened sidesteps the question by keeping his affairs to himself and also because our organization is not functioning perfectly at this time, but we hope that in this regard things will continue to improve.

We strongly urge unlimited publicity among ourselves as to threatened or pending malpractice suits, for only in this way are we informed of the existing condition, which, in turn, is bound to produce better co-operation. There is absolutely nothing to be gained by secrecy.

We feel that the creation of the medico-legal committee is a step in the right direction and we recommend that every County Society in the State make such committee a permanent one. This has been done by the Salt Lake and Utah County Societies.

During the year we have bent our efforts, not only to create enthusiasm in every county society in the matter of wholesome ethics and protection from unwarranted malpractice suits, but also to have the medico-legal committee of the county societies work in close connection with the State Committee, so that more efficient and thorough co-operation may be had.

This committee aimed to have one evening on this subject during the year, with every County Society, in order to stimulate the necessary interest, but we somewhat failed in our purpose, having carried out such intention only with the Utah County Society.

We strongly recommend the advantage of extensive fraternizing, so that we may all of us know and become more friendly with our fellow practitioners. There is no doubt that friendliness between us will produce a stronger feeling of fellowship and will reduce professional criticism to a minimum, and we are satisfied that getting together socially more frequently will accomplish this purpose.

As to our Liability Insurance we consider the group principle of great advantage, and, as near as it is feasible, we believe this advantage will be further increased by the total membership of our state organization being insured in the one company. This will increase the amount of premium to the company to a point where they must be bound to do their utmost or lose the business and will also have a strong tendency to bind ourselves closer together.

Attached is a letter sent to every County Society by this committee which was intended as good propaganda.

Lastly, we wish to remind our fellows of the absolute necessity of good wholesome professional ethics at all times, as this is after all the essence of the situation of protection.

We believe it might be a good idea at some time during every state meeting for all of us to stand up and re-affirm our intentions of practicing strictly within the law and with sincere good fellowship and ethics toward each other.

(COPY OF LETTER)

Salt Lake City, Utah, May 13, 1924.

To the.....County Medical Society,
.....Utah.

My dear Mr. President:

The Committee on Professional Welfare and Ethics of the State Association is greatly interested in creating enthusiasm in every member of the State Association through its County Societies relative to protection from malpractice suits, also general ethics.

Malpractice suits threatened and pending are in shameful disproportion to the size of the medical fraternity in the State of Utah. Believing that the danger of the situation can be overcome in just one way, this committee proposes to make a continuous effort throughout the year to improve those conditions which always form the basis of malpractice suits. We are convinced that the ethics of the profession must be improved to a very high standard; that doctors must cease the practice of criticising former treatment or result to his patient; that we must be especially careful in such situations that our manner does not intimate or insinuate a disapproval of the treatment or the result.

We believe that better and more inimate acquaintance with each other will go a long way to produce a friendly feeling. New members coming into the County Societies should be introduced. The older members should make an effort to become acquainted with the younger men. We should fraternize extensively and become friendly with every member of the Society.

We urge that every County Society appoint a Medico-Legal Committee and at once advise the President of the State Association as to the personnel of that committee so that he can appoint one of its members to be on the State Committee of Professional Welfare and Ethics. Thereby every County Society will be represented.

We desire the Medico-Legal Committee of the County Society to be in close touch with all cases of discrepancy in their county. In order to accomplish this it is absolutely necessary for every physician who is sued or threatened with suit to notify the Medico-Legal Committee at once through the officers of his society. There is no reason for secrecy, as the greatest amount of protection will come from co-operation through the greatest number of physicians being familiar with the situation.

We ask the County Societies, through their representatives, to make a monthly report to the State Committee of all malpractice suits, either threatened or pending, in their county and in turn this committee will report monthly to every county society, so that no matter where we may reside we will be informed as to just what is going on in other counties through the medium of the State Committee which will act as a clearing house.

This committee feels that it should be the duty of every County Medico-Legal Committee to include in its jurisdiction all medical testimony in personal injury suits against corporations, as indiscreet testimony in many

of these suits only opens the way for new malpractice suits.

We advise the immediate communication to the first doctor of the patient's dissatisfacion as intimated or expressed to the second doctor. This is an act of common courtesy which the doctor should be pleased to extend to the physician formerly in charge.

Report of the Committee on the University of Utah Medical Department (by R. R. Hampton, chairman). —Your Committee has examined carefully the Medical Department from all angles, has visited and examined the Medical Building and all the rooms devoted to teaching and preparation, has interviewed the President, the Medical Dean and the teachers. The committee found the building adequate in construction and arrangement, for the number of students admitted. The attic which was being used for small animals, has, at their suggestion, been remodeled, and the teaching and experimental work is being carried on, on a larger scale.

The Anatomical Laboratory was plentifully supplied with material, and only four students were using each body. The physiological laboratory was in need of enlargement and supplies. The President appropriated the necessary money (about $6000) and it is now complete in every detail.

The Pathological Department contained a wonderful supply of rare and ordinary gross pathological material, but was lacking in microscopic material. This is now being remedied, the hospitals of Salt Lake County having offered from their great supply, any tissue the University may need in completing the necessary teaching material. This laboratory and the Bacteriological laboratory, and Chemical laboratory, are adequately equipped and well supplied. A convenient library and reading room has been supplied the students in the building, and this new feature is exceedingly well patronized and speaks well for the character of the students.

All suggestions of the committee to the President and Dean looking to the betterment of the Medical School have been heartily endorsed, and wherever possible have been carried out. The fundamental basic fault, if there be one, of our Medical Department, is lack of money. With money we can have full time teachers. There will always be friction between members of the profession and the medical school as long as part time men are employed. Any increase of appropriation can only be procured when the profession gets solidly behind the University and its needs.

In a careful examination of present medical requirements of twenty-two Class "A" medical schools in the United States, many interesting facts are brought out. First, Utah is one of four schools that requires a three year college course, the other eighteen require two years. The average is 2.3 years. Second, in order not to consume too much time, we submit the following figures:

In English the average requirement for the twenty-two schools is 9.7 hours; Utah requires 18. Modern Language, average 15 hours; Utah 25 hours. Psychology, average 12 hours; Utah 15 hours. The total average requirement in Chemistry is 20 hours; Utah 30 hours. Biology, average 10½ hours; Utah 13 hours.

It might be pertinent to say that when the committee was appointed about one-half of the members were opposed to the Medical Department and the other half knew very little about it. We are glad to say now that the committee are unanimous for the Medical Department, and earnestly feel that it merits and should have the whole-hearted support of the profession in this State—not just a mental support, but an active support. Send your sons and daughters here for the first two years and then finish wherever you choose. At one time our graduate students had difficulty in getting into a Class "A" medical school, but this has been overcome to such an extent that there are a hundred places waiting for our twenty-five students yearly.

Do you know that the medical profession are welcome to do any dissecting that they may choose, and that the entire laboratory and teaching staff is at their disposal in any medical research work they wish to carry on? The able work on Malta Fever was done here, and we are informed that at the present time three other research problems are under investigation by members of the profession.

We feel that the greatest criticism against the Medical Department has been the extension work; also we suggest that the University, before undertaking any further extension work, confer with the Committee from the State Medical Association. A suggestion is made to the University that extension work by that department be carried to the component county societies of the Utah State Medical Association, upon subjects indicated by the society.

The Committee earnestly recommends that we send our own children to the Medical School, that we advise any young man or woman who contemplates studying medicine, to take the first two years there, that we fell it a duty of the entire profession to visit the school and take a personal interest in it. The more we get behind the school the higher it will become, and the higher the plane of the medical profession will be in the State.

We suggest that it would be well for members of the faculty to take an active interest in our State meetings, that perhaps at times it would be advisable for the Department to present an exhibition, illustrating the work being done in the different departments of the Medical School. We further suggest that whenever any member of the faculty is presenting scientific papers in other societies, that the University send copies of the paper to the members of the State Association. Likewise, it would be in keeping with our present close relationship if the University would supply every member in the State an annual catalogue of the Medical School, and keep the profession informed as to the contents of the library.

The House of Delegates re-convened the adjourned session at 1:30, June 19, President J. R. Morrell presiding.

A letter from Franklin Martin requesting that the State Association endorse the Gorgas Memorial was read. An appropriate resolution was passed unanimously.

PROPOSED CHANGE IN AMENDMENTS TO THE CONSTITUTION AND BY-LAWS OF THE UTAH STATE MEDICAL ASSOCIATION

It is proposed to amend the Constitution and By-laws of the Utah State Medical Association, so that the calendar year shall be the fiscal year. As the By-Laws now read the fiscal year ends March 31, and it is proposed to have it end December 31. This will mean that all dues for the calendar year must be paid January 1 for that calendar year and all dues not paid by that time will constitute a suspension of the members on the rolls of the Association. The members may be reinstated by payment of dues at any time during the calendar year.

The present By-Laws provide that a member shall not be suspended before March 31, so that members are carried on a three months' period of grace. The American Medical Association has adopted the calendar year for its fiscal year and has advised the various State Associations to do likewise. This matter was referred by the last meeting of the House of Delegates to the Council for consideration and recommendation. The Council has considered and now recommend to the Association that such action be taken.

If the proposed amendment is adopted it will change the words in chapter 9, section 11, from "March 31 to January 1," and in the same paragraph, section 13 the words "on or before March 31" to "on or before January 1" in two places, namely, line 7 and line 13.

The above has been published in our official jour-

nal "California and Western Medicine" and is brought to the attention of the members for the last time and will now be considered by the House of Delegates.

After very considerable discussion it was moved by M. M. Critchlow; seconded by C. L. Shields, that the change in the Constitution and By-Laws as outlined above be adopted. The motion, with one exception, carried unanimously.

Adjourned Meeting of the House of Delegates, held at 8 a. m., June 20, President J. R. Morrell, presiding.

Roll call showed all officers and councilors present.

Delegates

Boxelder County, None; Cache Valley, 1; Carbon County, 1; Salt Lake, 11; Alternate, 1; Uintah, None; Utah, 2; Alternate, 1; Weber, 4.

Moved by D. C. Budge that Alternate F. E. Straup be seated in place of E. M. Neher as delegate from Salt Lake County, and that Alternate J. W. Aird be seated in place of Fred Dunn as delegate from Utah County. Motion seconded by C. L. Shields and carried unanimously.

COMMITTEE REPORTS

Report of Committee on Credentials (by Francis A. Goeltz, chairman).—Your committee appointed at the last annual meeting to submit suggestions for the presenting of credentials and the seating of delegates submit the following:

That an amendment to the By-Laws be made and known as sections 3, 4 and 5, chapter 4, House of Delegates.

Section 3. Each Delegate representing a constituent society, before being seated, shall deposit with the Committee on Credentials a certificate signed by the secretary of the constituent society stating that he has been regularly elected a delegate or alternate by that constituent society.

Section 4. A delegate whose credentials have been accepted by the Committee on Credentials and whose name has been placed on the roll of the House, shall remain a delegate of the body which he represents until final adjournment of the session and his place shall not be taken by any other delegate or alternate.

Section 5. Each constituent society shall certify to the secretary of the State Association not later than May 1st of each year a list of the duly elected delegates and a list of alternates in the order of their election. In the absence of a delegate at the first session of the House, the Credentials Committee shall appoint an alternate from the list as submitted above. Alternates shall be chosen in the order of their election.

That an amendment to the by-laws be made and known as Section 5, Chapter 8—Committees.

Section 5. A Committee on Credentials to consist of the President, the councilors and the secretary, to which shall be referred all questions regarding the registration and the credentials of delegates. They shall meet just before the first session of the House and shall present at the beginning of this session the roll of the House of Delegates.

President Morrell stated that the proposed changes in the Constitution and By-Laws as outlined in the report of the Credentials Committee would have to lay on the table until the next meeting of the Utah State Medical Association, and in the meantime would be printed as required.

Report of Committee on Medical Caduceus (by L. J. Paul, chairman).—The following report is respectfully submitted regarding the work done, and information received from the Medical Association regarding the use of the caduceus as an automobile marker.

"Unfortunately, the caduceus is not subject to copyright and the American Medical Association for that reason cannot have the automobile emblem copyrighted. There seems to be some question as to whether any modification could be made that would bring the emblem within the provisions of the copyright laws.

The American Medical Association takes every possible precaution to keep the automobile emblem which it sells for physicians' use out of the hands of any except registered physicians. Unfortunately, however, any manufacturer can make the emblem and several of them do so. It is unfortunate, too, that physicians are very negligent about the matter and frequently fail to remove emblems from their old cars when these are disposed of and new cars are bought. We are convinced that a number of emblems have fallen into the hands of undesirables in this manner.

We have tried earnestly to devise some plan by which the American Medical Association can provide an emblem for its members which can be so safeguarded that none but members can secure it. Up to this time, however, we have not been successful in this direction. It is to be remembered that an emblem that is for the use of members of only one society or organization cannot be recognized by the police as entitling its users to privileges that are not also extended to other persons. This question has been settled definitely in several cities and the police have always ruled that they cannot discriminate between physicians who are members of the medical society and physicians who are not. I hope, however, that we shall yet be able to devise some plan that will work satisfactorily for all concerned."

It appears to this committee that further action by the State Association will be of no avail inasmuch as the American Medical Association states that it is attempting to devise some plan which will work out satisfactorily.

Committee on Post Graduate Work (by R. O. Porter, chairman).—The committee has made rather careful investigation of the types of post-graduate work being offered in several states, either by the State Medical Association or through some well-organized medical school. It has investigated more particularly the post-graduate work conducted in the State of Pennsylvania through the Medical School of the University of Pennsylvania in conjunction with the State Medical Association, and the post-graduate work of the State of North Carolina. These two states are unquestionably leading out in the amount, type, and character of the post-graduate work given. They have well organized extension post-graduate courses conducted through the Schools of Medicine which reach out to practically every portion of the state and afford scientific and up-to-date instruction during several months of the year to all of the physicians of the state who care to avail themselves of the opportunity at a very minimum cost.

The advantages of this type of post-graduate work which carries the courses to the physicians permitting them at the same time to be at home and take care of their practice, has met with such popular approval that it is now an established institution. A recent report of the development of the post-graduate work in these two institutions before the conference on Medical education in Chicago was attended by the chairman of your committee and the thought has developed with the committee that Utah might well afford to look forward to the establishment of somewhat similar post-graduate work in Utah. The idea has met with almost universal approval and many states in the Union will no doubt in the near future carry advanced medical education into the remotest hamlets of their states where it is most needed and least accessible. Your committee is not prepared at this time to make definite recommendations as to the scope and development of post-graduate work in the State of Utah further than to recommend that this association adopt a policy which will look forward to the development of this form of advanced medical education and that whatever post-graduate work is

undertaken be so undertaken in conjunction with the Medical School of the University of Utah.

The Medical School is willing to proffer its assistance, its laboratories and equipment and all of its facilities to the furtherance and development of post-graduate medical teaching in Utah.

The contemplated post-graduate work for Utah for the coming year has been considered rather carefully by the committee and valuable suggestions have been received from a great many doctors of the state. It occurs to your committee that it would be advisable to offer this year a week of clinics and lectures by some well recognized authority in internal medicine and also a week of similar instructions by a recognized authority in surgery or one of the larger specialties, either pediatrics or gynecology, both courses to be conducted the same week.

The committee is at present communicating with the following doctors: Doctor Joseph Miller of Chicago; Doctor John A. Clark of Philadelphia; Doctor Tyce of Chicago and Doctor Clifford Grulee of Chicago, and it is quite probable that two of these men will be obtained.

The date for the post-graduate work has been set for the last week in August or the first week in September.

Your committee also feels that it is time to expand the post-graduate work into the field of laboratory clinical diagnosis and suggests that this year a course in laboratory technique and diagnosis be conducted in conjunction with the clinical course above referred to at the University Medical School. This course would have for its object the teaching of a condensed and practical way of the approved and latest methods in laboratory technique and the relationship of clinical and laboratory findings to correct diagnosis and therapeutics. It might well include such procedures as chemical and micro-urinalysis; the proper staining and examination of sputa; simplified blood analysis, including blood counting; examination of feces, exudates, trancidates, etc.

It is proposed to conduct a clinic at the hospitals during the forenoon hours and to conduct a laboratory course at the medical school during the afternoon hours, thus putting all of the work in the same space of time and making each day very much worthwhile to the doctor who is coming into Salt Lake City primarily for those courses of instruction.

Your committee believes that a week's program of this character will appeal very strongly to a great many doctors who have found the stress of a large practice to interfere with keeping up in their laboratory work and that it would appeal to a great many men from the standpoint of a course intended more or less to fully occupy their time. We believe that it can be made a course of great value to the average doctor, particularly to those who are not in close proximity of a well organized clinical laboratory and who have to do a great deal of their own laboratory work.

While it is in the nature of an experiment, we believe it is worth while attempting and that it can be conducted this year without any increase in registration fees and it would be our suggestion to continue the fee of $10, although the work offered will be two or three times as much as heretofore undertaken.

Reference Committee—C. L. Shields reported for the Reference Committee, recommending all the reports to the House for their consideration and acceptance.

Moved by E. G. Hughes, that the report of the Reference Committee be accepted. Seconded and unanimously carried.

After discussion President Morrell announced that the election of officers would be held at 1 o'clock today, by unanimous consent of the House of Delegates.

President Morrell stated that in the report of the Secretary the matter of a reduction in dues from $8 to $5 had been recommended; that the recommendation had been endorsed by the Reference Committee and should be voted on by the House.

Moved by J. R. Anderson that the dues be reduced from $8 to $5 per year as recommended by the Secretary. Seconded and unanimously carried.

R. R. Hampton brought up the matter of there having been no papers on "eye, ear, nose and throat" for two sessions, suggesting that as ten per cent of the profession were specialists in this line, some provision should be made to give papers of interest on this subject.

President Morrell stated that the Program Committee had met with the officers and council several times while the program was being arranged and as this was not taken up then, it was undoubtedly the result of an oversight. He recommended that the President-elect, Dr. Kahn, handle this next year, as he desires.

A. A. Kerr moved that the delegate to the A. M. A., representing the Utah State Medical Association, be allowed $150 toward his expenses, beginning this present year, and that the same delegate be sent year after year so he would be of some force in the House of Delegates. He stated that until a man had been in the House of Delegates of the A. M. A. a few years, he could not do much—that some of the members had been there as many as fourteen years, and those men are able to accomplish things.

Motion was seconded by M. M. Critchlow.

After considerable discussion, both for and against allowing $150 toward the expenses of a delegate to the A. M. A., motion was put and lost. Moved by D. C. Budge, seconded and carried, that adjournment be taken until 1 o'clock. Meeting adjourned.

Third Session, House of Delegates, Utah State Medical Association, 1 p. m., Friday, June 20.—Meeting called to order by the president, Joseph R. Morrell.

Roll call: All officers and councilors present. Boxelder County, 1 delegate; Cache Valley, 2 delegates; Carbon, 1 delegate; Salt Lake, 14 delegates, 1 alternate; Utah, 3 delegates; Uintah, none; Weber County, 3 delegates, 1 alternate.

The president announced that two alternates were present: D. E. Smith, in place of F. F. Hatch, and E. P. Mills, in place of A. Z. Tanner.

Moved by E. I. Rich that D. E. Smith be seated in place of F. F. Hatch, as delegate from Salt Lake County; and that E. P. Mills be seated as a delegate from Weber County in place of A. Z. Tanner. Seconded by D. L. Barnard and carried unanimously.

Hampton stated it was his understanding that if a committee had not finished their work (as in the case of the Post Graduate Committee) that their work ended automatically with the old administration.

Rich, the secretary, explained that it had always been customary to have a committee that has been working on anything that has not been finished, complete the work they started; that the incoming president retain that committee to finish their work.

R. O. Porter, chairman of the committee on post-graduate work, suggested that this be a recommendation always to the incoming president.

President Morrell announced that the election of officers would be the next order of business. He thereupon appointed J. P. Kerby, H. P. Kirtley and E. P. Mills as the tellers.

Secretary Rich stated that the following officers were to be elected: President-Elect, First Vice-President, Second Vice-President, Third Vice-President, Treasurer, Councilor First District (two-year term), Councilor Second District (three-year term), Delegate to A. M. A. (two-year term), Alternate to A. M. A. (two-year term).

President-Elect—D. C. Budge was nominated by E. I. Rich, seconded by E. G. Hughes. T. C. Gibson was nominated by J. C. Landenberger.

Root asked if it were allowable for a delegate to transfer his vote when he has to leave the House.

President Morrell stated that he had to be here to vote in person.

Ballot taken with the following result: D. C. Budge, 11; T. C. Gibson, 17.

Moved by D. C. Budge that the vote be made unanimous. Seconded and carried unanimously; whereupon the president announced that T. C. Gibson was elected President-Elect for the ensuing year.

First Vice-President—E. F. Root nominated D. C. Budge. Moved by H. P. Kirtley, seconded and unanimously carried that secretary cast the unanimous vote of the entire House for D. C. Budge as First Vice-President.

Whereupon the secretary cast the unanimous vote of the House of Delegates for D. C. Budge and the president announced that he was elected as First Vice-President for the coming year.

Second Vice-President—J. Cecil Clark of Provo was nominated. Moved by E. I. Rich that nominations close and that the secretary cast the vote of the assemblage for Dr. Clark as Second Vice-President. Seconded and carried unanimously; whereupon the secretary announced that J. Cecil Clark was elected Second Vice-President for the coming year.

Third Vice-President—R. R. Hampton nominated Charles Ruggéri of Helper. Moved by Tyndale, seconded and unanimously carried, that nominations close and that the secretary be instructed to cast the vote of the entire House for Charles Ruggeri as Third Vice-President. This was done and the president announced that Charles Ruggeri was the Third Vice-President, to serve the coming year.

Treasurer—T. A. Flood was nominated by E. F. Root. Steele moved that nominations close and that the secretary be instructed to cast the ballot of the entire House for Flood as Treasurer. Seconded and carried unanimously. Whereupon the president announced that T. A. Flood was elected Treasurer for the coming year.

Councilor First District (2-year term)—Dr. Hampton: "I had the pleasure of nominating Dr. W. Leroy Smith of Brigham City to act in place of Dr. Whalen who moved to California. I now place his name before this House as Councilor for the First District." J. C. Landenberger: "I move that the rules be suspended and that the secretary be instructed to east the unanimous vote of the entire House for W. LeRoy Smith as Councilor from the First District." Seconded and carried unanimously. Whereupon President Morrell announced that W. LeRoy Smith had been elected as Councilor for the First District (2-year term).

Councilor Second District (3-year term)—E. G. Hughes: "I move that Hampton continue in office for the Second District." John Z. Brown: "I move the nominations close, that the rules be suspended and that the secretary cast the entire vote of the House for Hampton as Councilor for the Second District (3-year term)." Motion seconded and carried unanimously, whereupon President Morrell announced that Hampton would be the Councilor for the Second District for the next three years.

Delegate to A. M. A. (2-year term)—John Z. Brown: "I should like to nominate the present delegate, Neher." M. M. Critchlow: "I move the nominations close, that the rules be suspended and that Neher be elected by the unanimous vote of the House." Motion seconded and carried unanimously. Whereupon the president announced that Neher would be the delegate to the A. M. A. for the next two years.

Alternate Delegate to A. M. A. (2-year term)—E. F. Root: "I nominate the incumbent, A. C. Behle." M. M. Critchlow: "I move that the rules be suspended and that nominations close; that the secretary be instructed to cast the vote of the House for A. C. Behle as Alternate Delegate for the next two years." Motion seconded and carried unanimously, whereupon the president announced that Behle would be the Alternate Delegate for the next two years.

President Morrell stated that selection of a place to hold the next meeting was in order.

E. I. Rich moved that the next meeting be held in Salt Lake City. Motion seconded and carried unanimously.

President Morrell stated that this year the meeting had been held in June because it was possible to get the men that had appeared on the program at this time—some of them on their way from the Northwest Convention and others were already here in Logan at the National Summer School. He suggested that the time could be left with the Council and Program Committee, as it had been last year.

John Z. Brown suggested that during the summer months men of renown are running back and forth to the Coast and that during this time it is not difficult to get them to appear before the Association.

Landenberger moved that a rousing vote of thanks be given the Cache Valley Medical Society, the Committee in Charge of Arrangements and Entertainment, as well as the Agricultural College authorities for the splendid entertainment that the Association has enjoyed during this session. Seconded and carried unanimously.

A motion to adjourn, sine die, was passed unanimously.

GENERAL MEETING

Report of the Secretary to the General Meeting, following the last Scientific Session.

4:30 p. m., Saturday, June 21, 1924.

The House of Delegates held three meetings during this session of the Utah State Medical Association.

Reports have been given by all the officers and standing committees.

One new society (Boxelder County Medical Society) has recently been added to the Association, with eight members.

The dues of the Association were reduced from $8 to $5 per year.

The following officers were elected: President-Elect, T. C. Gibson; First Vice-President, D. C. Budge; Second Vice-President, J. Cecil Clark; Third Vice-President, Charles Ruggeri; Treasurer, T. A. Flood; Councilor, First District, W. Leroy Smith; Councilor, Second District, R. R. Hampton; Delegate to A. M. A., E. Manson Neher; Alternate Delegate to A. M. A., A. C. Behle.

The following, therefore, will consist of our officers for the coming year: President, Sol G. Kahn, Salt Lake; President-elect, T. C. Gibson, Salt Lake; First Vice-President, D. C. Budge, Logan; Second Vice-President, J. Cecil Clark, Provo; Third Vice-President, Charles Ruggeri, Price; Treasurer, T. A. Flood, Salt Lake; Secretary (2 more years), Wm. L. Rich, Salt Lake; Councilor, First District (2-year term), W. LeRoy Smith, Brigham City; Councilor, Second District (3-year term), R. R. Hampton, Salt Lake; Councilor, Third District (2 more years), E. G. Hughes, Provo; Delegate to A. M. A. (2-year term), E. M. Neher; Alternate to A. M. A. (2-year term), A. C. Behle.

Joseph R. Morrell, the outgoing president, spoke a few words of thanks for the support given him during the past year, and he thereupon turned his office over to the incoming president, Sol. G. Kahn, who stated that he had selected the following committees and chairmen:

Scientific Work—F. A. Goeltz, chairman; M. M. Critchlow, vice-chairman; L. N. Ossman, Wm. L. Rich, secretary.

Public Policy and Legislation—F. E. Straup, chairman; Fred W. Taylor, John Z. Brown.

Sub-Committee on Public Policy and Legislation—D. C. Budge, chairman; Eugene Smith, Walter Ellerbeck, F. R. Slopansky, W. H. Rothwell, Wm. H. Donoher.

Arrangements—H. P. Kirtley, chairman; C. F. Pinkerton, J. J. Galligan.

Transportation—Warren Benjamin, Chairman; T. W. Stevenson, Foster J. Curtis.

Education and Post-Graduate Work—Frank B. Steele, chairman; W. R. Tyndale, Martin C. Lindem.

Health and Public Instruction—R. A. Pearse (five years).

Advisory on Hospitals—E. M. Conroy (five years).

Industrial Medicine—A. A. Kerr, chairman; D. K. Allen, John F. Critchlow, L. F. Hummer, M. M. Nielson, S. D. Calonge, E. D. Hammond.

Necrology—Wm. F. Beer, chairman; F. M. McHugh.

Professional Welfare and Ethics—J. C. Landenberger, chairman; E. F. Root, R. W. Fisher, E. R. Dumke, S. C. Baldwin, J. W. Aird.

Advisory Committee, Medical Department, University of Utah—R. R. Hampton, chairman; F. A. Goeltz, Clarence Snow, D. C. Budge, E. G. Hughes, H. G. Merrill, J. C. Landenberger, W. G. Schulte, E. F. Root, H. P. Kirtley; J. P. Kerby, C. E. McDermid, Homer Rich, Joseph R. Morrell, T. C. Gibson (president-elect), Wm. L. Rich (secretary), Sol. G. Kahn (president).

Editor—J. U. Giesy.

Associate Editor—Wm. L. Rich.

The following was presented by President Joseph R. Morrell and received the hearty endorsement of the entire assembly:

"June 21, 1924.

The Utah State Medical Association has been received very kindly in this city and every courtesy has been extended. The comfort of our members and guests has been given every consideration and everything needed to make our scientific program successful has been gladly done.

The House of Delegates passed a resolution thanking the Cache Valley Medical Society and the various committees of that society, as well as the Agricultural College authorities, for the splendid entertainment that the association has enjoyed during this season.

We take this opportunity to again express our thanks to the Cache Valley Medical Society, and to D. C. Budge, chairman of the entertainment committee, for the splendid meeting place and the excellent entertainment that has been provided.

JOSEPH R. MORRELL, President,
WM. L. RICH, Secretary."

Minutes of the Salt Lake County Medical Society Meeting, June 25, 1924 (reported by M. M. Critchlow, secretary).—A special meeting of the Salt Lake County Medical Society was held at the Medical Building, University of Utah, on June 25, 1924. Meeting was called to order at 5:10 p. m. by President A. A. Kerr. Seventy-seven members and visitors being present.

President Kerr introduced Prof. Leonor Michoelis of Nagoya, Japan, and then introduced Prof. Von L. Aschoff of Freiburg, who read a most interesting paper on "Atherosclerosis," illustrated by lantern slides.

T. A. Flood kindly took stenographic notes of the lecture.

Meeting adjourned at 6:05 p. m.

"It is comparatively easy for men to believe in the possibility of what they earnestly desire to see accomplished, and easy to persuade them that a highly vaunted remedy will do what is claimed for it, and no one better knows this fact than the professional uplifter who has a reform to sell to a generous and credulous public."—J. H. Beal, in address to National Association Retail Druggists.

Nevada State Medical Association

HORACE J. BROWN, M. D., Reno.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

PROGRAM OF THE TWENTY-FIRST ANNUAL MEETING TO BE HELD SEPTEMBER 12, 13, 14, BOWER'S MANSION (20 MILES SOUTH OF RENO) NEVADA

Officers

Horace J. Brown, president, Reno; William M. Edwards, first vice-president, Yerington; A. C. Olmstead, second vice-president, Wells.

Trustees—A. C. Olmsted, W. A. Shaw, A. P. Lewis.

Delegate to A. M. A.—Horace J. Brown; alternate, J. LaRue Robinson.

Committees

Membership—C. W. West, Hal L. Hewetson, B. Brown.

Judicial—M. A. Robison, Donald Maclean, R. A. Bowdle.

Scientific Work and Program—J. L. Robinson, A. P. Lewis, E. E. Hamer.

Necrology—V. A. Muller, S. R. Clark, G. L. Dembsey.

Council—C. E. Swezy, A. J. Hood (Elko), R. R. Craig, O. Hovenden, J. West Smith, D. A. Smith, S. K. Morrison, C. C. Bullette, C. H. Lehners, C. C. Blake.

Entertainment—S. K. Morrison, W. L. Samuels, J. L. Robinson.

Public Health and Education—Henry Albert, W. A. Shaw, M. R. Walker.

Military Affairs—The president, vice-presidents, and secretary.

Friday, a. m., September 12, 1924

1. L. M. Boyers, Berkeley, California. "Human Amebiasis as a Disease Entity."
2. Henry Albert, Reno, Nevada. "Amebic Dysentery from Laboratory Standpoint." Discussion of No. 1 and No. 2 by H. L. Hewetson, I. J. Sellers.
3. A. Huffaker, Carson City, Nevada. Subject unannounced.
4. James T. Watkins. San Francisco, California. "Orthopedic Surgery." Discussion by W. B. Coffee, R. A. Bowdle, Donald Maclean.
5. Cullen F. Welty, San Francisco, California. "Mastoid Surgery." Discussion by J. A. Fuller, D. L. Shaw, J. L. Robinson.
6. M. R. Walker, Reno, Nevada. "Acne." Discussion by Albert Soiland, W. N. Kingsbury.

Friday, p. m., September 12, 1924

7. Leo P. Bell, Woodland, California. "Bantis Disease from Medical and Surgical Aspects." Discussion by E. P. Sloan, W. E. Stevens, A. P. Lewis.
8. E. P. Sloan, Bloomington, Ill. "Goitre." Discussion by V. A. Muller, G. J. Bergner, T. W. Bath.
9. William E. Stevens, San Francisco, California. "Some Interesting Urological Cases in Women and Children." Discussion by B. Caples, V. A. Muller.
10. W. H. Brennen, Eureka, Nevada. Subject unannounced.
11. W. H. Riley, Gold Hill, Nevada. "Problems of the Industrial Surgeon." Discussion by Donald Maclean, R. R. Craig, W. M. Edwards.
12. George Carr, D. D. S., Reno, Nevada. "Relation Between the Dental and Medical Professions." Open Discussion.

Saturday, September 13, 1924

13. Albert Soiland, Los Angeles. "Radiologic Treatment of the Leukemias." Discussion by M. R. Walker, A. J. Hood (Elko).
14. Howard Naffziger, 291 Geary Street, San Francisco. "Resume of Recent Advances in the

Diagnosis and Treatment of Surgical Conditions of the Nervous System." Discussion by R. H. Richardson, G. L. Servoss, A. F. Adams.

15. G. J. Bergener, Southern Pacific Hospital, San Francisco. Subject unannounced.

16. W. B. Coffee, Southern Pacific Hospital, San Francisco. Subject unannounced.

17. John Tees, Reno, Nevada. "Acute Primary Pyelitis in Infancy." Discussion by A. Huffaker, Carl McPheeters.

18. V. A. Muller, Reno, Nevada. "Goitre Classification and Treatment." Discussion by E. P. Sloan, W. H. Brennen, W. A. Shaw.

19. G. Carl McPheeters, Fresno, California. "Obstetrics." Discussion by John Tees, A. B. Spalding, A. Huffaker.

Sunday, September 14, will be devoted to trips to Lake Tahoe and elsewhere. Ladies cordially invited.

Nevada State Medical News Items (reported by C. E. Piersall, secretary)—There were five members of our State Association who attended the American Medical Association at Chicago, June, 1924. The four whose names we have are: S. K. Morrison, Reno; W. H. Brennan, Eureka; Henry Albert, Reno; G. L. Belanger, Austin.

Dr. Angus Smith of Mina, Nevada, is on a three months' trip to Europe.

Dr. M. M. Carmichael, of Nixon, Nevada, has been transferred to the Indian Service in South Dakota. His station at Nixon is now filled by Dr. W. L. Shock of Schurz, Nevada.

Dr. H. J. Brown, the president of the Nevada State Medical Association, appointed Mrs. S. K. Morrison as a delegate to the Ladies' Auxiliary, to the 1924 American Medical Association. Mrs. Morrison accompanied Doctor Morrison, who was alternate delegate for the Nevada State Medical Association.

Dr. and Mrs. M. R. Walker returned July 10 from a month's trip to the Hawaiian Islands.

A special meeting of the Washoe County Medical Society, Reno, at the Reno Chamber of Commerce, will be called some time this month. Dr. Hugh Berkley, of Los Angeles, will talk on "Pediatrics." The next regular Washoe County Medical meeting will be the second Tuesday in August.

Localization of Spinal Block by Means of Iodized Oil—In a case cited by Ethel C. Russel, Philadelphia (Journal A. M. A.,) in view of the fact that (1) the history was not unlike that of a cord tumor without pain but with motor symptoms at onset, (2) the helplessness of the patient with incontinence, and (3) the negative evidence of any other disease (the establishment of a lesion causing a spinal block or proof of its absence was most desirable. Accordingly, 2 c. c. of iodized oil was introduced into the cisterna magna, and roentgenograms were taken of the thoracic spine. On roentgen-ray examination the impervious material was seen opposite the body of the fifth dorsal vertebra. Following the injection, there was slight pain in the distribution of the seventh cord segment and localized sweating over adjacent vertebrae. Both of these phenomena disappeared during the second twenty-four hours after injection. The patient had no convulsion, rise of temperature or any other abnormal clinical manifestations. The conclusion was thus made of an obstruction at the fifth dorsal vertebrae or seventh thoracic segment of the cord, and surgery was recommended. Laminectomy was performed and a tumor was removed at the level indicated. The tumor was located on the anterior surface of the cord, intradurally, and was approximately 4 or 5 cm. in length. The gross appearance was that of a fibroma. Although exceedingly friable, it was readily separated from the cord, with no evident injury to it.

BOARD OF MEDICAL EXAMINERS

Proposed Amendments to Medical Practice Act—The Law and Education Committee of the Board of Medical Examiners presented a report at the May meeting and embodied therein a recommendation that section 14 of the Medical Act be amended at the next Legislature by adding a new subdivision which will provide as a cause of revocation, the issuance of fraudulent diplomas, certificates, credentials, etc., by an individual holding a certificate under the Medical Practice Act.

It was also decided to add another subdivision making commitment to an asylum for the insane, grounds for revocation of a license with the understanding that restoration of the certificate will be made when the licentiate has been declared sane.

California urgently needs some statute that will curb the incorporation of "sundown" professional schools.

For several years a so-called medical school incorporated under the laws of our State by a licensed physician and surgeon, has been scattering questionable medical diplomas throughout the United States. In many instances those who obtained these M. D. degrees have never been in California.

For eleven years the Board of Medical Examiners of California has endeavored to put a stop to this irregular procedure, made possible by lax laws. On the eve of threatened prosecution, this institution disincorporated.

Although the hollow mockery of official disincorporation was enacted in June, 1918, apparent conclusive evidence now exists that one or more officials of this defunct (?) medical college are reaping an abundant financial return through the sale of fraudulent credentials as well as diplomas intended to show attendance or graduation from said institution.

The alleged owner who, 'tis said, is the central figure in this nefarious scheme, is reported as a resident member of one of the exclusive clubs of Los Angeles, and poses as a man of leisure, spending much of his time at golf. With diplomas quoted for sale at $150 each, it is easy to imagine that much "leisure" time may be required.

The finger of scorn is pointed at California by those interested in the maintenance of honesty of purpose in medical education, and derision heaped upon us for our lax laws that permit such a condition to exist, hence the Board of Medical Examiners is deeply interested in legislation to correct the existing evil.

The Treatment of Mastitis—M. Pierce Rucker, Richmond, Va. (Journal A. M. A.), states that the prophylactic treatment consists of commonsense and cleanliness. It should start at the very beginning. After the breast becomes inflamed, treatment depends on whether or not pus be present. Abortive treatment consists of rest in bed, a tight breast binder supporting the breast up on the front of the chest, and either ice or hot water bags. Rucker prefers the ice bag, as it seems to relieve the pain more completely. When pus forms, it should, of course, be evacuated. Rucker makes a stab incision, and institutes Bier's hyperemia. Gardiner's treatment shortens the course of the disease considerably. Small abscesses can be made to heal within a week. In a considerable number of the cases a small sinus forms along the needle track after two or three days. When this occurs, Rucker has resorted to Bier's hyperemia to empty the abscess cavity, believing that it not only empties the cavity better, but also washes it out with fresh blood, and collapses its walls. The pressure binder is kept up just as Gardiner recommends. More recently, after making the puncture and aspirating the pus, he has filled the cavity with a 2 per cent solution of mercurochrome = 220 soluble, and then aspirated that before applying the pressure binder.

Medical Economics and Public Health

More About That "Health Survey" of San Francisco—In the June number of CALIFORNIA AND WESTERN MEDICINE, the report of a "survey" made by Haven Emerson and Anna C. Phillips of San Francisco's social and health service facilities was commented upon.

We will now take up a more leisurely and detailed analysis of this remarkable document:

> "With few, if any, of the inconveniences or hazards of industry to handicap its citizens, San Francisco faces," etc.

Statements like this and similar ones elsewhere in the report may be attended to by the business interests of the community if they believe them of sufficient importance. They are introduced here merely to indicate the unreliability of the surveyor's alleged facts.

> "The widespread unfamiliarity of its San Francisco people with the means of self-protection and lacking information based on modern biological science, upon which the development of sturdy, vigorous bodies and the training of alert and well-balanced minds and nervous systems depend."

We can only understand this statement by assuming that the surveyors' philosophy is that "they whom the gods intend to destroy they first make mad." The criticism of the law, organization and management of the San Francisco Hospital as a department of the city and county board of health and their recommendation that this and the other hospitals should be placed in the hands of a special board of trustees is a matter which already has been carefully considered by persons fully as capable as these surveyors and abandoned for reasons that they apparently did not discover during their hurried visit.

We challenge these surveyors to point out a public municipal hospital organized under their scheme anywhere that is superior to the San Francisco Hospital in any particular essential or that can compare favorably with it as a whole. It is impossible to understand the stupid statement contained in the survey that the San Francisco Hospital is "a negative function so far as modern public health work is concerned."

The survey mentions some, but not all, of the other functions of the health board and says they "are probably" as effective as funds will permit. A reorganization of the health board's work is recommended along the lines of certain other cities, where reliable reports show there is more trouble than San Francisco has and where criticism may be made should one care to offer it.

The surveyors suggest as a bait to our efficient health board that if they will follow their suggestions "it is probable that the force of public opinion and the powerful influences of the private health agencies of the city would soon be so strong in support that adequate appropriation would be obtained."

In general, the survey consists in carping criticisms of the health board and offers platitudes to improve them. Some of our physicians believe—and several references in the survey tend to support the belief—that the real trouble with San Francisco's health board is that all but one member of our public health board, including its executive officer, are physicians who always have opposed and still oppose compulsory health insurance and other forms of paternalism in medicine. All persons who are active in extending the movements of paternalism in medicine and placing the control of medicine, including public health medicine, in the hands of non-medical persons will, of course, thoroughly approve of the recommendations made in the "survey."

> "Protection against diphtheria by the widespread demonstration of toxin-antitoxin immunization of young children (at 2 years of age) requires additional medical and nursing personnel and an expansion of educational efforts."

Thus the survey makes another characteristic criticism of the physicians and nurses of the city and county. It ignores the essential facts regarding the incidence of diphtheria. It deliberately avoids the fact that, although a great seacoast city, a railroad, motor road and steamship terminal, San Francisco neither has, nor can have, a serious epidemic of diphtheria. The survey ignores the generous space allotted with great frequency by our newspapers to public information prepared by physicians, health bodies, civic organizations and schools. This to a degree not surpassed anywhere either in quantity or quality of effort. The report either purposely, or ignorantly, ignores the well-known fact that there are enough educated physicians willing to give the protective treatment against diphtheria to serve all the children there are in the city within three hours. They are willing to do it for a fee from those who should pay and for nothing for those who should not pay. They have been, and are constantly engaged in this service in their offices, hospitals and clinics as a routine matter.

Of course this effective work of physicians in their private capacities and in co-operation with other physicians forming our health board and with many excellent clinics and hospitals would be condemned by those persons who want to see medicine operated as a government bureau.

> "Protection of maternity and childhood is seriously hampered by lack of personnel to supervise midwives," says the survey.

The people who are licensed by the state to practice this most difficult speciality of medicine are physicians, chiropractors, osteopaths, drugless healers and midwives. Why did not the survey inform us as to which of these groups should do the supervising? And if any group except the educated physicians were implied, why tell us who should supervise the supervisors? Of course, midwives are incompetent to practice obstetrics, as all fair-minded, intelligent persons will admit. If the survey wanted to criticize intelligently, why did it not make recommendations that would require a change in existing laws? There was no hesitation in making other recommendations that would require modifications of existing law more difficult to secure than it would be in this instance. Judging from what is being done in some of those centers that the suyeyors use to make invidious comparisons with to the discredit of San Francisco, it seems fair to assume that what they had in mind was to have midwives supervised by those who are themselves unlicensed to practice, and while rendering excellent and commendable service in the fields they have been educated to fill, are nevertheless incompetent in the practice of obstetrics.

> Protection of maternity is furthermore "seriously hampered," according to the survey "by lack of personnel to offer prenatal instruction, to examine children of pre-school age and to provide a thorough medical inspection of children in school and in industry."

This statement is deliberately challenged as being untrue. It is true that certain classes of salaried personnel are practicing medicine less widely in San Francisco than they are in some other large cities. It is not a fact that there is any shortage of the class of people who by education, training and licensure should give this medical advice and make these medical examinations of school children, babies or other citizens.

> The survey commends the fact that "laboratory service and food, milk and dairy inspection are suitably provided for."

Our board of health and other physicians feel that the laboratory service needs additions, that would make it more readily available to all classes of poor people, whether ill in their homes, ambulatory or confined in a hospital.

The "survey" criticizes plumbing and housing inspection because it is done by the board of health instead of a building department. It says the service as rendered by physicians and technicians working under medical supervision "contributes little to the health of the community."

> "Health education is wholly unprovided for and in this appears the most striking inadequacy of public service by the Board of Health."

This statement is challenged as being untrue. Much of the best sort of health education is being carried on and there is too much also of the wrong kind. The trouble with the surveyors is not so much that it is not being done, but that it is not being done by the people they think should do it, nor in the way they think it should be done. There are many ideas of what constitutes health education, who should teach it and what should be taught and by whom controlled. The survey carefully avoided being specific about this important matter. Of course, the surveyors did not stay long enough on the ground to learn very much about the actual conditions, as is so painfully apparent in many places in the report. But it is difficult to understand how they failed to find out that the city school department has a full-fledged health education department and that they maintain a school for health teachers. They must have had time to find out that all of our newspapers carry health education columns. some edited by medical organizations and others provided by writers from other centers. Several civic organizations, such as the Association of University Women, various women's clubs; the two medical schools and our universities give instruction in health. There are also many other organizations and persons engaged in the work. We do not hesitate to state that there is more "health education" in California reaching a higher percentage of people more constantly than in any other state. More of this "education" is authoritative than it is in most places. Much of it is useless and some of it dangerous, we are ready to admit, but we doubt if we have more of this class than is being fed out by the ton in some of the pet cities used in the survey by way of comparison.

If the surveyors meant to infer, as apparently they did, that all "official" health education should be taken away from the board of education and given over to the board of health, we are ready to agree with them to the extent that it might be an improvement over present conditions, but there is nothing in unbiased reports of experiences elsewhere to warrant the conclusion that either plan is to be highly commended.

Some one has yet to devise a definition of what "health education" should include and a feasible plan of making it available within such bounds that the majority of educated physicians will approve.

This analysis will be continued next month and monthly thereafter until the answer to this unfortunate "survey" is complete.

About Medical Leadership—The address of Ray Lyman Wilbur, as retiring president of the American Medical Association, was referred to the Committee on Reports of Officers. After careful study, the committee made the following report which was adopted by the House of Delegates:

"The extemporaneous address of President Wilbur has been referred to this committee. The address has been carefully considered, and the committee begs to commend it most highly. It deals with two problems of supreme importance, both to the medical profession and to the public it serves. Truly, 'Great forces are stirring in every part of society,' and medical and public health problems are seriously involved. As pointed out by the President, it remains to be seen whether the medical profession will secure to itself the leadership in the advances and extensions that are being made, as the telephone companies appear to have done, or whether it will remain behind the times and expend its energies in vainly attempting to stem the tide, as the railroad companies evidently have done. We treasure individualism in medicine, and if our high purposes are to be carried out and ideals realized, there must never be bureaucracy in medicine, nor must there be interposed between the physician and those whom he would serve any intermediator whatsoever. In this particular we beg to quote the words of the President:

"'The fund of information is there. We stand between that information and the public. It is our problem to provide for its distribution. If we make those provisions wisely, if we meet the situation, then we will retain the mastery; if we fail, education has reached such a level that others will begin to demand that there be a distribution of this information available to the human race and we will lose our position of mastery. I have confidence that we will maintain it.'"

Hold Steady—"In this day of excitement, of restlessness, of dissatisfaction, of grasping for the luxuries of life the medical profession must exercise extraordinary care that the general trend of the times does not draw it into the whirlpool of desires to the debasement of its time honored and time respected ideals and convert its professional idealism into business acumen and trades union selfishness," says Doctor George Edward Follansbee (Ohio Medical Journal). "Respect for self and respect for our profession demands that our service be adequately recompensed but we must be ever mindful that the fees which we exact should also be commensurate with our patient's ability to bear financial burden and that the over-burdening of the patient with professional charges is a large factor in driving a proportion of our population into the care of clinics and welfare associations to the patients' degradation as being grasping and the profession's reproach as debasing its high ideals. More and more is the practice of medicine invaded by governmental, social and welfare organizations to the ultimate harm, as we believe, not only of the profession but also the people, and commercialism on the part of the individual doctor will promote that movement which we recognize as a menace."

Kings County (N. Y.) Medical Society—The trouble between the New York State Medical Association and the Kings County Medical Society is not our affair and we do not propose to comment upon it. One outgrowth of the controversy has been a statement by the president of the Kings County Medical Society of what they are doing, that should be stimulating to other large county medical societies.

President Gordon in speaking of their position and doings says:

"1. We own and operate our own beautiful building, which is a credit to the city, and the medical profession.

"2. We maintain, with the highest dues in the state a library of 100,000 volumes, one of the largest medical libraries in this country.

"3. Our postgraduate educational movement is attracting nation-wide attention and favorable comment from prominent educators everywhere.

"4. An active Public Health Committee is constantly at work in the civic field.

"5. Our Committee on Illegal Practice has secured results which it is admitted, no other County Society in the state could effect. Mr. Whiteside has called this 'a signal accomplishment.'

"6. Co-operating with the Brooklyn Health Exam-

ination Committee, we are planning periodic health examinations on a scale never before attempted.

"7. To our Press Reference Committee, the managing editors of the newspapers of Brooklyn promise their earnest co-operation.

"8. We have many more civic contacts with big business, the Health Department, the Department of Public Welfare, and the voluntary health agencies."

Amount of Sickness Among School Children—Doctor G. E. Harmon and Mr. G. E. Whitman have recently published (Public Health Reports) some interesting data about absenteeism because of sickness among the school children of Cleveland.

Their calculations were made upon the basis of the maximum possible "school days" for the school year. The 1611 pupils studied had a total possible of 215,256 "school days." 1036 lost 6352 days because of sickness. Respiratory infections (colds, sore throats, bronchitis, etc.) caused 45.4 per cent and measles, scarlet fever and chicken pox 32.8 per cent of the absenteeism. Total days absenteeism because of sickness was 297 per possible 10,000 school days. Approximately 45 per cent of these children had no medical attendance; about 42 per cent were attended by educated physicians and about 23 per cent were cared for by various inadequately educated groups of practitioners.

Hygiene and Sanitation—Hygiene and sanitation have been required studies in all public schools in New York State for thirty years, says the New York State Journal of Medicine editorially. A whole generation of people has grown up under that teaching system, and the people know sanitation as poorly as ever. The reason for the ignorance is plain. A few moments of classroom instruction are entirely neutralized by hours of observation and use of unsanitary devices. The impression is that the classroom teaching is designed for a few delicate ladies, and that sanitation is of so little use that it is not worth observing in the school.

Hospital Betterment—At a recent meeting of a state committee, at which standardization matters were being discussed, says Norhwest Medicine, the representative of one of the hospitals reported that his hospital had classified its surgeons into three groups: major surgeons, senior group; major surgeons, junior group; and minor surgeons, and had categorically classed all other men as practicing general medicine. This seems to be the outstanding example of understandardization, leading to the neglect or actual detriment of general medicine.

Many phases of standardization are a mere sham, put on to get a rating by a set of inspectors who investigate surgical matters reasonably carefully and neglect entirely to look into medical and laboratory matters. Much of our seeming improvement is comparable to the knowledge of a man who is preparing himself for examination by cramming.

Another state of affairs that is a sham is that of fee-splitting. None of the hospitals of our acquaintance is doing anything to actively combat this practice. The prevalence of fee-splitting has been lessened but little. It has been modified, perhaps, in being less flagrant but more cunning, since hospital standardization has been inaugurated.

Is General Practice Declining?—The "sob stuff" that we read about the decline of general practice and the rapid disappearance of the general practitioner, says the Atlantic Medical Journal editorially, emanates principally from the big cities, and in them it is true that the specialist is much more prominent than is the general man, although the latter, though quiet in his work, is very far from being extinct. There are entirely too many crocodile tears being shed over the disappearance of the old family doctor. He has not disappeared; he has simply become wise to the economic situation and modernized his way of doing things.

As a matter of fact, the country doctor of today differs little from his city colleague. Perhaps there are more city men feeling financial stress than there are in rural and semi-rural sections.

The overhead expense of medical practice, like the overhead in everything else, has gone up; and the practitioner must meet it by doing a more profitable business. The way that is done these days is not merely by charging more for drugs furnished and visits made, but by doing a lot of things requiring skill and expensive appliances. Specialism has not decreased the need for the service of the general practitioner; it is just the opposite, for specialism has taught the general man to do a lot of effective things our forefathers did not do.

There is too much stress laid on specialism. Every successful doctor must specialize somewhat in emergency surgery, in obstetrics and in diseases of children; and most of them are very technically able men in these very lines. Then, too, the successful country doctor must have quite a range of laboratory appliances and know how to use them. The medical directories list about 150,000 physicians in the United States, and they list the specialists separately. Doctor, look up the directories and you will promptly conclude that the overwhelming bulk of the profession are in general practice. Yes, large numbers of these general men give special attention to some one line of work, but the bulk of their work is general practice.

The general practitioner has changed from what he was even ten years ago; he is an educated gentleman of technical training and ability, and he knows perfectly well that he must be a better trained man than was his predecessor. The young graduates do not have any "corner" on this technical ability, for the older men have kept up, just as the older contractors, engineers, mechanics and merchants have done.

Medical Protection—Discussing this subject editorially the British Medical Journal says in part: No practitioner is safe against becoming involved in very costly litigation arising out of his practice, and no amount of care and skill can render him immune against attack by unscrupulous or wrong-headed persons. Yet at a trivial cost protection can be obtained, and it is to be regretted that there are several thousands of practitioners who have not yet availed themselves of this line of defense. The London and Counties Medical Protection Society, one of the principal defense organizations, held its annual meeting of members recently, when the Council submitted a report of a successful year's work, including a steady increase in membership and financial resources. During the year 1923 the number of applications from members asking for advice and assistance was 662 as compared with 645 for 1922 and 465 for 1921. The results of cases in which litigation occurred were satisfactory, but in the great majority of cases settlement was obtained without litigation.

The experiences of the Medical Defense Union and the Medical Protection Society alike show that the questions and appeals arising from the National Health Insurance Regulations are markedly on the increase, and the solicitors to the Society warn panel practitioners thus: "The authorities, it would seem, are demanding from panel practitioners almost academic adherence to their terms of service and medical benefit regulations, and panel practitioners cannot be too careful in their strict adherence to them, as otherwise they may find that through a purely technical breach they are penalized in a substantial amount."

In the event of any trouble members should inform the Society immediately, as the Society has in many cases been embarrassed in its efforts on a member's behalf by the matter coming to its notice when the position had already been complicated by unwise action on the part of the member. A large number

of charges of negligence and unskillfulness are dealt with by the Society for its members every year.

The report contains much useful and helpful information and advice on the subjects of libel and slander, medical ethics, National Health Insurance, professional secrecy, medical fees, as well as on difficulties which may arise between partners or between principals and assistants. The numerous cases quoted go to show how many and varied are the trials of the practitioner, and how, essential it is that he should adequately safeguard himself.

No Need of Doctors' Speeding—"For a long time there seems to have been a common notion among people not doctors that a certain amount of boorishness, professional bad manners, and often downright insolence is a necessary part of the medical man's equipment," says Doctor Robert P. White, New York Tribune. "Consequently many physicians, particularly the younger ones, affect a manner of arrogance and studied discourtesy often mistaken for dignity and as marks of great ability. There isn't a single plausible excuse for giving any private practitioner of medicine the same right of way as ambulances, fire apparatus and patrol wagons. There never was a time in the life of any private practitioner when he could not make all the time necessary and at the same time conform to traffic regulations."

The Cures That Have Failed—James J. Walsh, (Ill. Med. Jour.) in discussing this subject points out that to cure is to restore people to health, but the meaning of the word cure has been changed in the course of the last generation. *Cura* in Latin meant orginally to care for and that is what we physicians propose to do for patients. But cure has come to mean bringing about recovery from disease. There is in human nature a definite tendency to degeneration and we begin to die from the moment of our birth on and "life is a dangerous thing at best," as an Irish friend of mine says, "and very few of us get out of it alive," so the doctor cannot be expected to make people as good as new.

Osler liked to quote old Dr. Parry of Bath in that well known expression of his, "It is much more important to know what sort of patient has a disease than what sort of disease the patient has." After all we all recognize very well that when we are called in to see a patient suffering from a disease, let us say pneumonia, it is much more important as a rule if the man is at all on in years, that is beyond middle life, for us to know what he takes into the pneumonia with him than what sort of pneumonia or how much pneumonia he has. If he had scarlet fever when he was younger and developed glomerular nephritis as a result and now bears in his kidneys the results of that in the shape of a Bright's disease we will not be able to do very much with him in his pneumonia. If he has a crippled heart, the result of rheumatism when he was younger, or a typhoid fever in adult life, he will probably die on the sixth or seventh day from exhaustion.

Osler used to say that he thought that every physician ought to read some Hippocrates every year so as to learn how to observe his patients.

The young man who had been a student of Trousseau's came to ask him, "They tell me I have consumption. Do you think I ought to take that new remedy that is curing so many consumptive patients?" And Trousseau replied, in words that ought to be in the note-book of every physician, "Oh yes, and take it now while it cures because after a while it will be found not to cure and then it will do you no good."

The history of medicine contains a series of very precious lessons for the modern physician if some of these incidents of the past will only serve as warnings against present day fads in therapeutics and enable us to understand just why it is that the quack and the charlatan succeed so well with a great many patients. Without knowing it they are applying the remedy of favorable suggestion, but why should not the regular physician do the same thing, only do it consciously and be taught how to do it properly? He will not cure cancer nor pneumonia nor typhoid fever nor any other tissue disease, but he will cure the psychoneuroses, that is the hysterias, and they can masquerade as almost any affection in the category of disease.

An Important Medical Problem Well Stated—"Welfare and socialistic movements, based as most of them are in whole or in part on an expressed or implied anxiety for the health or development of the individual, depend largely for their success on the association of the physician with their work," says Doctor George Edward Follansbee (Ohio Medical Journal.) "For the members of the profession to decline to participate in such activities on the ground that they are an invasion of the doctor's private work and are harmful to his practice would be beneath that high plane of our ethics that places the general physical welfare of the people above our pecuniary desires. But it may well be considered by thinking men, whether the superficial and apparent betterment produced by many of these agencies does not at the same time produce a hidden and insidious ill effect far overbalancing the good achieved, in the general lowering of that moral stamina of the people that comes from the lack of individual endeavor, and dependence on others to do for them what should be done by themselves: and whether the acceptance at the hands of government or society of assistance for which no payment is asked does not tend to breed a class of beggars or dependents dangerous to the ideals of personal endeavor, personal independence, personal liberty that has made our country what it is, or at least what it was until the wave of charity welfare flooded it. We speak of them as 'American Ideals.' When we as medical men are invited, urged or drafted into these activities let us carefully consider not only the present and apparent good they may do but also the ultimate effect, and freely give our help to those that in the end are good and withhold it from those that are evil. It is not against high professional idealism to withhold the soothing syrup that allays pain but masks and hides the underlying and insidious disease that is developing.

"The enforcement of the law does not and should not lie in the hands of our professional organization, either county or state. The ideals of our profession do not go so far as to obligate us to compel people to do that which is best for their health and just so far as we medical men either as individuals, societies or associations lend ourselves to the prosecution of offenders under the medical laws **who do not belong to our organization**, so far do we expose the profession to the charge of commercialism, jealousy, envy and incompetence. Any why not! The American people are an egotistic and commercial, not an altruistic people." (Ohio State Medical Journal, June, 1924.)

Psychiatry and the Practice of Medicine was the subject of this year's Shattuck Lecture. Dr. C. Macfie Campbell was the speaker and California and Western Medicine commends the careful study of the lecturer which is published in full in the Boston Medical and Surgical Journal.

For those who may not take the time to study this very important contribution, the following abstracts are submitted:

"It is a great delight to us all when a simple formula suddenly proves the key to a bewildering variety of obscure data; new methods are eagerly welcomed, especially when they offer us a short cut to important conclusions and obviate the painful necessity of thought; cures make a special appeal to us and we snatch at them eagerly from the hands

of the laboratory worker and even from the counter of the pharmaceutical houses. Psychiatry has not yet found an antidote for paranoia; the new methods still fail to relieve us from thinking; human nature in difficulties is too complex to be embraced in any simple formula. * * *

"There are many sick people, whose problem cannot be understood unless one takes into account the fullness of human nature, and the special environmental influences under which they have broken down. This may seem to be a truism, too obvious to require statement, but to some it appears almost a heresy to suggest that human nature may have more complex tasks than that of grappling with the tubercle bacillus and other organisms and that there may be more subtle interchanges with the environment than those connected with the respiratory process. To claim that, in these more complex tasks and more subtle interchanges, functions are involved more highly integrated than those studied by the physiologist and by the internist, and that the inadequacy of these functions may lead to an actual breakdown in the harmonious adjustment to the environment, is to render oneself liable to a charge of mysticism. Fever, swelling, leucocytosis are worthy of detailed study; depression, peculiar beliefs, impulses of obscure origin, these, too, may seriously disturb the harmonious adjustment of the individual, but the detailed study of these phenomena, and of the laws of their development is sometimes looked on askance. * * *

"There is something within us which protests against having our personality completely resolved into a world of whirling electrons, or exhausted in a formula of colloid chemistry; and even the physicist or chemist, working in his laboratory, if he has not closed all the windows, but still retains some contact with the real concrete world of experience, realizes that he is only dealing with experience from one angle. We must not accuse him, therefore, of too seriously resolving us into a meaningless congeries of electrons, and of being personally indifferent to the unity of the individual, and to his meaning and his destiny. This unity, the most fundamental element in the experience of each one of us, does not come within the scope of his work and is provisionally left out of his formulations of the universe. We must, however, be constantly on our guard against the assumption that the individual is nothing more than an association of elaborate mechanisms, which can be understood irrespective of their relation to the living individual of which they form one aspect. **In disrupting the individual into such systems, and considering them out of relation with the organic unity of which they form a part, one has ignored the most fundamental of all the facts, namely, the unity of organism and its reaction as a whole to the demands of the environment.** One cannot reintroduce this factor as an additional mechanism, a spirit or soul, for the unity of the organism is not something above and in addition to the various systems, it is part of their very essence, and they are not fully understood, except in the setting of the whole organic unit, and that organic whole is the individual man, who not only breathes and moves but thinks and craves and strives.

"This universe is no disorderly spectacle of independent and self-existent things scattered about indiscriminately in infinite space and time. The facts of biology, even taken by themselves, render any such hypothesis impossible. * * *

"It is, therefore, a comfort to the psychiatrist to find confirmed by the philosopher and by the physiologist that which ordinary good sense had stoutly maintained, namely, that ideas after all do somehow or other play a role in this physico-chemical world of ours, that they have to be dealt with as forces, that they may be a matter of life or death, that ideas have caused revolutions, that men have died for ideas, that they are part of the very fibre of our being, and that to attempt to resolve them into physico-chemical elements is an absurdity. * * * The psychiatrist considers the patient not as a mere group of systems, but as an individual with his own personality, with his world of emotions and beliefs and strivings, adjusting himself to an environment which is permeated with similar factors; he does not a priori rule out the possibility that the dysharmony, for which the patient comes to him, may be somehow or other associated with the complex problems of life, with difficulty in balancing the conflicting tendencies within human nature, with failure to get satisfaction from the environment for some of the fundamental cravings of human nature. * * *

"The sick and handicapped, who come for help to the medical profession, present a great variety of problems; their failures may lie in many directions. In some cases the failure is due to physical trauma, in others to poisonous substances, to invading organisms, to some inadequacy in the delicate regulating mechanisms of nutrition and growth. The interference with these fundamental processes may disturb the more complicated reactions of the organism in its adaptation to the environment, which depend on the delicate co-ordination of the simpler functions; there may be delirium, morbid ideas, erratic behavior, depression, the intrusion of threatening voices and visions into the external world of the patient. The practical problem in such cases is to restore the efficiency of the fundamental systems involved. * * *

"The reaction of the patient as a whole to the situation plays its role in the clinical picture, and it may depend on general environmental factors as well as on the limited morbid process. A discouraging family situation, a gloomy doctor, depressing views may retard the recovery from conditions where the morbid process is localized in stomach, heart or lungs. Not only may muscles atrophy and joints stiffen from disuse, but the desire to work may also fade away and prove difficult to resuscitate. * * *

"There is one group of cases where there is less temptation for the physician to devote his attention to a morbid process to the neglect of the broader aspect of the adaptation of the individual; in these cases no definite morbid process can be detected, and the physician is perforce thrown back on the personality of the patient for the explanation of the disorder. It is true that the real Simon Pure nosological expert, the physician who only deals with disease and not with patients, does not tamely accept the affront to his doctrines, offered by such patients. Not finding any of the orthodox symptoms of a legitimate disease, he tells his patient that there is nothing wrong with him, and that his trouble is exaggerated or imaginary. The therapeutic corollary of this diagnosis is for the patient to forget his trouble. * * *

"If official medicine deals with these disorders in a somewhat cavalier or haphazard manner, if it deny their existence, or call them imaginary, or simply give them Greek names, does human nature in distress accept this as final? No; distress craves relief, and these patients in distress will go to other people who, not burdened with detailed medical lore, but pragmatically inclined, are willing to try their hand at the problem. * * *

"The attitude of the psychiatrist to his patient is that of the internist to a case of tuberculosis; the internist explains the disorder in terms of the invading organism, producing local and general reactions, and of the relative immunity of the patient, determined by congenital equipment modified by individual experience. So in relation to a patient with a morbid depression the psychatrist tries to find the precipitating noxa, whether tubercle bacillus, gastrointestinal anomaly, or domestic or social situation; he has to study the constitutional equipment of the patient, both in the light of his heredity and of his past experiences.

"The importance of this work must be emphasized, especially for the benefit of those who, disregarding

the foundations of the human economy, are only interested in the functions of the higher levels and sometimes fail to note that the disturbances at these levels may be symptomatic of something going wrong at lower levels."

Surgeon Held Liable for Accident to Patient—While the surgeons were operating upon a patient in an Oklahoma hospital a nurse placed a basin of hot water between the patient's feet. Hot sponges were wrung from the water by a nurse and passed to the surgeon as he needed them. The patient secured a severe burn on the feet and ankles and brought suit against the hospital and the surgeons.

The Supreme Court of Oklahoma has ruled to the effect that the surgeons and not the hospital are liable and have awarded judgment on that basis. The court points out that regardless of who employed the nurse that she—and all others—were subject to the surgeon's orders.

"While the head nurse and her assistants were the general employees of the sanatorium," says the Court, "they were, nevertheless, during the time required for the actual operation, under the direction and supervision of the operating surgeons, and were the servants of the operating surgeons in respect to such services as were rendered by them in the performance of the operation, and for any negligence on the part of such employees in the performance of such services the operating surgeons were liable. An examination of the authorities discloses to this Court's satisfaction that the true test of the existence of the relation of master and servant in a given case does not depend on whether the servant was in the general employ of the master, but on whether the master actually exercised supervision and control over the servant during the time he used such servant."

This decision ought to interest surgeons and hospitals.

Physical Examination of Employees—"Compensation and indemnity insurance is furnished by nearly all industrial concerns and in many States is compulsory by law. However, it is not an unmixed blessing, for it often is wrongly applied or abused and still more often is honestly misinterpreted through lack of knowledge as to the physical condition of employees," says the Indiana Medical Journal editorially. "Eventually both employers and employees are going to recognize the advantages of periodic physical examination as an economic feature in the lives of employees, for ill-health cuts down production. At present a feature that is lost sight of by some employers of labor are the compensation claims which are based on troubles originating prior to employment. A physical examination by a competent medical man prior to employment would in the majority of instances detect hernia, venereal disease, incipient tuberculosis, diabetes, heart lesions, and impaired eyesight. A record of these defects would prove valuable in adjusting claims, though of far more value in acquainting the employee of his condition and bring to bear upon him recommendations as to his care. Perhaps the majority of the employers of labor have periodic physical examinations themselves, and it is a good thing for them; it is a good thing for their employees. The one thing to be considered in the adoption of this plan is to secure competent medical men to make the examinations. It is not work that should be done by the incompetent or illy trained physician. Still another feature that is worthy of consideration is the question of compensation. Employers should not expect to secure the highest type of work in this field without paying well for it, for this work is comparable to the work of the efficient general manager or superintendent.

Children's Habits—"The organization of habit clinics is the evidence of an increased interest in the guidance of young children," says American Medicine editorially. "There is a serious question, however, as to the advisability of introducing a special terminology which does not adequately indicate the problem. Habits, after all, are manifestations of behavior and do not, per se, require a different or new mode of attack or an unusual therapeutic method. The habit is an expression of the child and its rectification follows the readjustment of the child."

In discussing the same subject Doctor H. M. Levy, psychiatrist for the Illinois Institute of Juvenile Research, "emphasizes the folly of regarding a habit as anything save as a symptom. Whether one discusses regurgitation of foods, explosions of temper, deficiency in speech, or habit spasms, there is no standardized formulated treatment that will meet the needs of children. Frequently a habit may be merely a conditioned reflex, but in every instance it is a symptom of a juvenile difficulty that can only be solved by an adequate understanding of the individual whose behavior is out of harmony with accepted standards of performance.

"To think in terms of a 'habit clinic' tends to center thought upon the habit as the main element, whereas the truth requires recognition of the entire individual and very frequently his entire social setting."

Poor Medical Meetings—"The fault is quite often with the authors of so-called 'papers,'" says the editor of American Medicine. "If a man knows his subject sufficiently well to bring it to the attention of his colleagues, he should not only be able but willing to stand on his two feet and tell them about it, instead of mumbling inaudible words from a typewritten page. He may have a 'skeleton outline' with headings, sub-headings, minor notes, quotations or sentences which must be repeated accurately, before him. These ought to suffice for any intelligent man to make his subject interesting. The average man who prepares a discourse takes it for granted that his auditors are interested in the history of medicine from the time of Hippocrates down to the year of Grace, 1924, and he proceeds, therefore, to recite queer names and exact dates in a fashion that is sure to weary an already tired assembly. Nobody cares for the background upon which he is trying to build his argument. * * *

"Fifteen minutes should be long enough for the average 'paper' unless it represents a vast amount of original work based upon laboratory investigation. If an author is giving something original to the world, he may be pardoned for taking twenty minutes or even a half hour, but many of the big things in life have been done and said in a shorter time than that. One ought to beware of historical introductions, statistical facts and tables, and repetition of age-long ideas which have been copied from one book and periodical to another throughout the centuries. The mind of the medical man is usually practical and he cares not a fig for theory. If he can use an idea in his practice he will pay some attention; but if he thinks he cannot, he will close both his eyes and ears to it."

What About the Pay Clinic?—"There seems to be no denying that the pay clinic will take away the 'bread and butter' of the average practitioner," says American Medicine. "That is the first reason why the efforts of the Cornell University Medical College to establish and maintain a pay clinic have been so severely attacked by the general profession. Their aim is to provide medical service at cost in all main branches of medicine and surgery to men, women and children. The clinic has a very wide scope, and takes in practically all the known classified fields of medical endeavor. On October 31, 1922, this pay clinic completed its first year. During that year it admitted over 22,400 patients at an admission fee of $1 plus extra charges for special examinations. The average fee paid by each patient per visit was $1.52.

while the cost to the clinic was $2.03, exclusive of the services contributed by the Cornell University Medical College. These figures show that the cost of medical service was in excess of the very modest fees charged; therefore, unless the clinic receives a large endowment it will either have to close its doors or increase its fees.

"The best medical thought on the activities of the Cornell clinic is crystallizing into pronounced opposition. Even those medical men who at first were in favor of this paternalistic scheme are now opposed to it because there is no good reason why the same service cannot be obtained in private offices, or in private medical groups. * * *

"Among those in favor of pay clinics, however, is the eminent Dr. Richard Cabot of Boston, who sets down his reason for endorsing this plan as follows:

"1. That hospital clinics represent organized medical work, while private practice is disorganized medical work.

"2. That diagnosis can often be correct because of the laboratory's instruments and specialists; while, outside of hospitals, in the absence of these resources, diagnosis cannot often be correct.

"3. That correct diagnosis and the treatment based on it is limited to the rich who can pay many specialists, and the poor who attend the better hospital clinics, together constituting but a small fraction of the public.

"4. That honesty, confession and correction of errors, and therefore progress, are favored by the grouping of experts on friendly terms in a hospital—while the isolation and competition to which the private practitioner is exposed bring a dangerous strain on his honesty, and make it hard for him to progress.

"With all due respect to Dr. Cabot," continues the author, "these arguments favor the establishing of medical groups, but have little or nothing to do with the financial management, maintenance, or profit-bearing element. There is evidence which seems to show that pay clinics cannot even be self-supporting, to say nothing of supporting the physicians who are obviously the backbone of any such enterprise. The economics of the pay clinic which is conducted as a sublimated kind of charity are unsound. Doctors should not be obliged to bear the burden of treating free patients to any considerable number. They cannot do it if they will, and they must not do it if they can; for it is unmoral and unsound viewed from whatever angle. Physicians with large private practices usually have satisfactory incomes and, therefore, cannot give a great amount of time to charity cases, so that the burden really rests on the shoulders of the younger and less successful men, who are, of course, least able to bear it."

California and Western Medicine has heretofore commented extensively upon this subject and it is important to note what action editors think of this particular type of expensive paternalistic medicine."

The Danger of Too Many Clinics.—The editor of American Medicine believes "there is a hazard in multiplying clinics, so that sections of people only are given consideration. There is admittedly an advantage in devoting attention to particular phenomena, physical or mental, that are not fully understood. It is helpful, also, to devote special study to various types of behavior problems in the light of our present unsatisfactory knowledge concerning their origin and nature. It is disadvantageous, however, to speak of a 'habit clinic' as a special agency when all life consists of habits.

"The 'habit clinic' should not be a special department, but rather integrated in some general branch of service broadly called a clinic for hygiene. In many hospitals there is a mental hygiene clinic, and this term has been generally employed so as to cover a field more extensive than, and fully inclusive of, the type of service given in the so-called habit clinic.

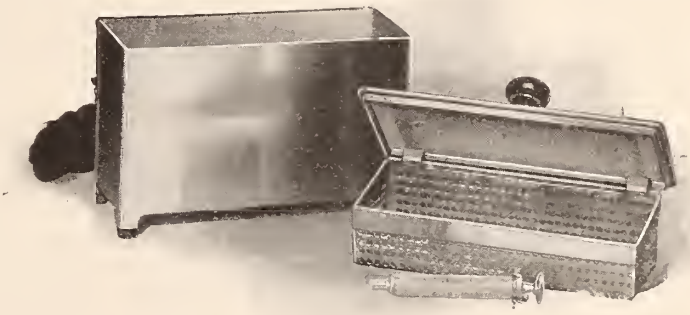
"There is considerable mental recreation and not a little amusement in noting the expression of 'herd psychology' in the avidity which intelligent people jump to the support of the 'habit clinic,' 'guidance clinic,' evanescent craze now sweeping the entire country. The humorists' and cartoonists' designation of these clinics as 'nut clinics' is as catchy a slogan as the original names and is liable to live longer."

X-Ray Plates Privileged.—The Supreme Court of Washington has recently upheld a decision that X-Ray plates are part of the privileged communications between physician and patient.

New Syringe Sterilizer—A new portable sterilizer for syringes has just appeared on the market. It operates by electricity and brings water to a boil in three to four minutes. The tray is 5⅛ inches long and will hold any syringe up to and including the 20 CC size.

It is particularly convenient for carrying when making calls, and may be put into the bag or overcoat pocket.

Many physicians whose diabetics are taking insulin at home are recommending they use this sterilizer as a precautionary measure in sterilizing syringe and needle. The sterilizer is made by the Wilmot Castle Co. of Rochester, whose advertising appears regularly in California and Western Medicine.



Air Mail—The first mail of the new airplane mail service received by California and Western Medicine was copy for this month's advertisement of the Bush Electric Corporation, 334 Sutter street, San Francisco. The copy was wired for, to Chicago, July 10, was mailed that evening, and reached San Francisco at 5 p. m., July 12. Typical of the usual prompt and satisfactory service furnished by this company.

"Unless we can be certain of having all the facts we had better leave statistics alone—especially reformers' statistics—and rely upon everyday observation and common sense in judging of the success, or lack of success, of a given piece of reform legislation."—J. H. Beal, in address to National Association Retail Druggists.

Congress created a board to classify government employes, and the committee included nurses with dietitians, laboratory workers, physiotherapists, and others rendering what the committee considered as technical, as distinguished from professional service. Nurses in many places are objecting to the classification and demanding to be put in the professional class with lawyers, architects, engineers, and doctors.

ARE RECORDS OF SICKNESS NECESSARY?

This question is often asked. The only answer is that they are.

We all recognize the necessity of bringing out all the evidence regarding an accident in order to arrive at a fair estimate of the responsibility, as well as the character and amount of injury. All of our court decisions are based upon evidence, which is nothing but the record of the case. The physician's diagnosis in all cases of illness is based upon evidence, just as is the court decision. This evidence, like that in court procedure, is obtained by direct and cross-examination of witnesses and by evidence obtained by various tests. Evidence in most instances of illness is of greater variety and harder to get than it is in a court case. The physician is prosecuting and defending attorney, judge, and jury. When we realize his complex functions and the greater difficulties of securing and classifying a larger and often confusing mass of evidence, we begin to have some appreciation of the education, training and sense of values which the true physician must have.

Records, whether in the physician's office or a hospital, are the written evidence the physician has before him, and the diagnosis is the decision upon that evidence. The physician who merely looks at a patient's tongue, feels his pulse, hears a little special pleading of the patient and then writes a prescription, is about as safe for the patient as the judge who, in a murder trial, hears the direct testimony of one witness, looks at a tintype of the accused, and then pronounces judgment.

Of course, both physicians and courts often deal with "old offenders" whose histories are well known. The former record in both cases helps in arriving at a decision.

Must the record be written? It should be in the case of illness for the same and additional reasons that it is in court procedures. The most important additional reason is that the very fact of writing the evidence insures its more careful consideration. The next of the very many important reasons for writing the record is that it furnishes permanent information that may be reviewed from time to time; may be added to in the case of subsequent troubles, which is the invariable rule for all persons, and this evidence, with ever-increasing frequency, proves to be a protection to the physician against unfair criticism or unjust court action.

One of the happy signs of the times is the more frequent discussion of this subject by the general public and the constantly increasing number of people who state openly that they will trust their health only to the physician who seriously compiles and analyzes his evidence.

To whom shall the physician's record be available? The answer depends somewhat upon the State you live in. In some States this evidence is safe with your physician and can no more be called out in court or elsewhere than can the client's confidences to his attorney. In other States the law protecting "privileged communications" is more liberal and only certain features of evidence are covered by the "privileged communication" clause of the law. In other States, and California is one of these, the law is wholly inadequate to protect the confidences between patient and physician; this is the case whether or not the evidence is written. This lack of adequate legal protection of professional confidences is one of the principal difficulties in securing the otherwise desirable and necessary extension of the practice of complete records in hospitals and physicians' offices.

If people in general once realized the uses that are made of records of most intimate character in some of the "files" in California, we would have an adequate "privileged communication" law in short order. —Better Health.

PACIFIC NORTHWEST MEDICAL ASSOCIATION

ABSTRACT OF PROCEEDINGS OF THE THIRD ANNUAL MEETING

By G. F. Strong, M. D., Vancouver, B. C.

The third annual meeting of the Pacific Northwest Medical Association, held in Vancouver on June 26, 27 and 28, furnished ample proof that the P. N. W., while one of the youngest associations on the continent, is a lusty youngster destined to measure strength and usefulness with the oldest associations in the country in the very near future.

The attendance was much the largest since the inception of the association, there being a total registration of 589. Being the first international medical convention ever held in British Columbia, it attracted perhaps more than usual attention from doctors of the province, but their faithful attendance at all sessions indicated that it was a keen desire to take active part in the work of the convention, rather than any sense of duty as hosts, that was the underlying motive.

The attendance at all sessions was quite remarkable, and a "full house" when the morning meetings opened sharp at 8:30 made some of the easterners rub their eyes. They found that it was a gathering of earnest men, eager to take full benefit of the opportunities afforded in the practical talks of recognized authorities.

The social side of the convention, however, did not suffer in any way from this devotion to business. The great majority of the delegates had brought their wives and many of them brought their whole families along. It was estimated that altogether there were more than 1000 visitors connected with the convention in Vancouver during the three days.

There was but one official function of a social nature: the noonday luncheon held on Friday at the Ambassador Cafe, when upwards of four hundred delegates sat down to an excellent meal, with music, and heard the presidential address of Dr. Homer D. Dudley of Seattle, the retiring president. Dr. T. C. Routley of Toronto, general secretary of the Canadian Medical Association, presided, and short addresses were also made by Sir John William Thomson-Walker of London, England, the eminent urologist, and Dr. Walter W. Chipman of McGill University, Montreal. The former gave a much appreciated talk on international relations, particularly as they affect the profession.

Delegates and their wives and families were given ample opportunity to enjoy the scenic beauties of Vancouver and its surrounding districts which have made that city one of the famous tourist centers of America. Scores of Vancouver doctors opened their homes to the visitors and family parties were among the most enjoyable incidents of the whole convention.

A large and energetic committee of doctors' wives took charge of the women and children from the time of their arrival and there was a constant succession of motor drives, teas, golf at the country clubs, yachting, launch trips, etc. The presence of three of the principal ships of the British Special Service Squadron, on its cruise around the world, proved one of the big attractions. Practically without exception, the visitors found their way on board the Hood, the great battle-cruiser which is not only the pride of the British Navy, but the largest and most powerful war vessel afloat. Here they enjoyed the unrivaled hospitality of the Vice-Admiral and officers of the squadron. One of the most enjoyable of these outdoor functions was a trip around Vancouver Harbor in the official boat of the Vancouver Harbor Commission.

All sessions of the convention were held in the spacious ballroom of the Hotel Vancouver, where delegates had practical "run of the house." Large spaces were set aside for the convention offices and

for the exhibits of firms specializing in instruments and appliances. A large proportion of the visiting delegates had accommodation in this palatial hotel, which is one of the most famous of the institutions operated by the Canadian Pacific Railway, and it proved an ideal setting for such a convention.

For three days the medical men wearing their identification badges, and their wives and children, filled the lounges, the corridors, the drawing-rooms and the dining-rooms and were made to feel as much at home as if they owned the place. Here they met tourists and travelers from all four quarters of the globe, as ships from the Orient and the Antipodes arrived during their stay and others sailing brought their quota of passengers from other parts.

Delegates were in attendance from all of the states and provinces represented in the association, including Washington, Oregon, Idaho, Utah, Montana, and British Columbia, Alberta, and Saskatchewan.

Dr. Alex. S. Monro of Vancouver, president-elect of the convention of 1923 at Seattle, assumed the presidency, and to his unremitting personal work as chairman of the general committee on arrangements, much of the outstanding success of the convention was undoubtedly due. Dr. Monro, who is one of the leading surgeons of Vancouver, is a "one hundred per cent Canadian," but he made the American delegates feel that for him and all his associates in the profession in British Columbia the international boundary is nothing but an imaginary line shown on maps.

In accordance with the by-laws of the association, all of the speakers at the convention were from outside the territory of the association, and they included noted specialists and authorities from Great Britain, the United States and Canada.

Sir John William Thomson-Walker of London, England, is senior urologist and lecturer of King's College Hospital and surgeon to St. Peter's Hospital, and late Hunt. Professor of the Royal College of Surgeons, England.

Dr. Frederick J. Cotton, one of the most noted of New England surgeons, is visiting surgeon of Boston City Hospital; consulting surgeon of New England Hospital for Women and Children, is senior consulting surgeon of the U. S. Veterans' Bureau and Assistant in Surgery at Harvard Medical School.

Dr. Walter W. Chipman is professor of gynaecology and obstetrics of McGill University, Montreal, and connected with the Royal Victoria Hospital and the Montreal Maternity Hospital.

Dr. Lorimer J. Austin is professor of clinical surgery at Queen's University, Kingston, Ontario, and chief of surgical service at Kingston General Hospital.

Dr. Leonard G. Rowntree is professor of medicine for the Mayo Foundation for Medical Research.

Dr. Charles Hunter, the only lecturer from Western Canada, is associate professor of medicine of the University of Manitoba, Winnipeg.

Dr. S. A. Kinnier Wilson is a distinguished neurologist of London, England, associated with leading hospitals there.

Dr. Frederic N. G. Starr is associate professor of clinical surgery in the University of Toronto, and Dr. George S. Young is associate in medicine in the same institution.

Dr. Horst Oertel, is professor of Pathology at McGill University, Montreal, and Dr. John Tait is professor of physiology at the same place.

Summary of Papers

Dr. Charles Hunter—Speaking on "Two Common Types of Headache," he went very fully into the Migraine type and stated that recently he had had some success in treatment by giving 15 grains of sodium salicylate each night for three months. The other type discussed was the myalgic headache at the back of the head. The pain in this, he found, could be relieved by the injection of one half per cent novocain solution or a 1 per cent quinine and urea solution into the muscles at the affected area.

Dr. Frederick J. Cotton—Dr. Cotton discussed present methods of fracture treatment, with particular regard to the treatment of hip fractures.

Dr. S. A. Kinnier Wilson—In a lecture on "Some Common Neurological Symptoms," Dr. Wilson took up some of the common presenting complaints that he had run across in his out-patient work. He emphasized particularly how frequently the term neuritis is misused; how generally the laity regard any condition attended with pain, numbness or tingling, as an evidence of neuritis, and yet how seldom such symptoms are due to an actual disease of the nerve trunk. He also discussed neurasthenia, emphasizing particularly the differential diagnosis and pointing out that in certain organic diseases of the nervous system the early symptoms might very closely simulate neurasthenia. In this regard he mentioned particularly general paralysis of insane, paralysis agitans, and myasthenia gravis.

Dr. Joseph Brennemann—Dr. Brennemann discussed throat infections in children, including the pulmonary complications that so commonly occur.

Sir John Thomson-Walker—In his lecture on the relations of calcified abdominal glands to urinary surgery, Sir John pointed out the importance of distinguishing these glands from ureteral calculi.

Dr. Horst Oertel—Lecturing on "The Flow of Structure With Age and Disease," Dr. Oertel emphasized the changes in vascularity that occur in various organs with increasing age. He showed slides that emphasized particularly this point in the case of the heart and kidneys.

Dr. L. G. Rowntree—Speaking on "Cardio-renal Vascular Diseases," he discussed the subject of chronic nephritis, going into some detail of the various laboratory tests now in use.

Dr. John Tait—In his lecture on Hemorrhage, showed that the process of arrest in a punctured vessel was due, not to a coagulation of the blood, but to the agglutination of certain blood elements.

Dr. F. N. G. Starr—Lecturing on the right iliac fossa, Dr. Starr discussed his treatment of right iliac fossa pain, emphasizing the importance of constipation resulting particularly from the improper modern food mixtures.

Dr. S. A. Kinnier Wilson—Dr. Wilson gave a clinic on some neurological cases from the Provincial Hospital for Incurables at Marpole. Various conditions were shown and discussed, and some of the important diagnostic signs that were apparent in a brief examination were pointed out and discussed.

Dr. L. J. Austin—In his letter on "The Pathology, Diagnosis and Treatment of Gall Bladder Diseases," Dr. Austin reviewed in a general way the whole subject, mentioning the formation of bile, the occurance of stones, the distinguishing features of obstructive jaundice; as to treatment he discussed the proper place for cholecystectomy or cholecystotomy.

Dr. L. G. Rowntree—Lecturing on Liver Function, Dr. Rowntree mentioned the evolution of the dye test from the time the dye had been originally suggested by him to the present. At first the dye was given intravenously and the amount appearing in the stools was ascertained, whereas now the amount leaving the blood is determined. He also discussed the value of the Van den Bergh test.

Dr. W. W. Chipman—Dr. Chipman discussed the puerperal uteras and its infection, emphasizing particularly some points brought out in his clinic in the Royal Victoria Hospital, Montreal.

Dr. S. A. Kinnier Wilson—He discussed involuntary movements and their significance, pointing out that the corpus striatum could not occupy the important position that had been so generally accorded it.

Dr. George S. Young—Dr. Young gave a detailed account of the routined physical examination of the office patient.

Dr. W. W. Chipman—In the course of a lecture on

Ectopic Gestation, he reviewed the 104 operations for this condition performed by him at the Royal Victoria Hospital, and discussed the subject in a general way.

Dr. George S. Young—In his discussion of Goitre and its medical treatment, Dr. Young said he had never seen a case of exophthalmic goitre improved by the removal of foci of infection, and that in some cases the removal caused the lighting up of the symptoms of hyperthyroidism. He mentioned the use of Lugal's solution and pointed out that its use was dangerous in toxic adenoma. He found it of some use as a means of making a differential diagnosis between exophthalmic goitre and toxic adenoma, since it is generally beneficial in the hyperplastic type ot thyroid disease.

Dr. W. W. Chipman—In his lecture on Adolescent Dysmenorrhoea, Dr. Chipman emphasized the common finding of acute entiflexion of the uterus. He pointed out that the uterine muscle was never at rest, mentioning the well-known fact that any resting muscle atrophies.

Dr. John Tait—Dr. Tait discussed the characteristics of mammalian skin as contrasted with the skin of reptiles, fishes, etc.

Dr. F. J. Cotton—He discussed the subject of osteomyelitis and chronic infections in bone, pointing out the normal process of repair in these conditions.

Dr. Charles Hunter—In his lecture on psychotherapy, mentioned the fact that there were few if any patients going to the doctor that could not be benefited by the application of the principles of psychotherapy. This is well recognized in the cast of functional diseases, but it is often overlooked in cases presenting systemic organic disease.

Dr. L. J. Austin—Lecturing on the surgery of the hand, discussed Whitlow and the treatment of infections of the fingers, palmar abcesses, and other treatment. He also went into the subject of causalgia as a common finding in diseases of the hand. He pointed out that certain surgical lesions could produce atrophy of the small muscles of the hand quite similar in appearance to that of progressive muscular atrophy.

Dr. L. G. Rowntree—In his lecture on diseases of the pituitary and adrenal, discussed diabetes insipidus and Adeison's disease. Concerning diabetes insipidus, he held that the etiology was not entirely clear and that some cells in the infundibular portion were undoubtedly involved as well as the posterior lobe of the pituitary. As to treatment, he mentioned the use of pituitary intranasally. He also pointed out that certain symptoms of diabetes insipidus resembled those induced by water intoxication. In discussing the treatment of Adeson's disease, he said that he had given adrenal preparations by mouth as well as by hypo.

Dr. Horst Oertel—Lecturing on the relation of the pancreas to diabetes, he pointed out that in the first place the actual basis of the disorder in diabetes was not clearly known. He had slides showing the tremendous disintegration that occurs in pancreatic tissues in the severe cases of diabetes.

As the Sheppard-Towner Principle Is Operated in Russia.—(According to press dispatches sent out by the Chicago Tribune Company). Because after placing their children in soviet homes in the colonies, parents make frequent visits, bringing presents and caressing their children, the commissariat of education in the homes hereafter will confiscate all of the presents distributed among the children and will not permit the parents to see their children more than twice a month and, when possible, will prevent the parents displaying affection toward the children. According to the decree, "much dissatisfaction is caused among the children by parents who fail to sever connections with their children after giving them to the care of the soviet government.

BOOK REVIEWS

Practical Chemical Analysis of Blood — By Victor Caryl Myers. 2nd ed. 232 pages. Illustrated. St. Louis: C. V. Mosby Co., 1924

A cursory comparison of this edition with the original 1920 booklet emphatically impresses us with the already stabilized position of blood chemistry both in technic and clinical usability.

There is no occasion here to catalog the scope of Myers' work save to say that every phase and established method of technic is fully and comprehensively set forth. The arrangement is good, standardized and established investigations, systems of analysis such as that of Folin and Wu and studies still confined to the research laboratory are separately presented rather than indiscriminately scattered. The clinical viewpoint is meritoriously brief.

Although in title a work on blood chemistry, a short chapter of certain urine tests is inserted, adding to the value of the book.—E. A. V.

Neurologic Diagnosis — By Loyal Edward Davis. 173 pages. Illustrated. Philadelphia and London: W. B. Saunders Company.

The author considers each functioning unit of the nervous system, i. e. motor, sensory, etc. He gives accurately, sufficient anatomy and physiology so that he may explain normal and abnormal functioning. Then the mechanism of the production of neurological symptoms is explained. The illustrations are very valuable. Many cases are reported, and the pictures present are explained on the anatomic and physiological basis. The doctor needs a book of this type, in addition to his neurological anatomy, and clinical textbook of neurology. Davis' book is valuable because of its method of attack, conciseness and accuracy.—J. C.

Uber Hysterie—By Dr. Ernst Kretschmer. 115 pages. Leipzig: George Thieme, 1923.

The monograph on hysteria is purely a study of its etiology from a psychological standpoint. In the first part the similarity between hysterical manifestations and the protective reactions of lower animals is shown. In the second part the first chapter is taken up with a study of hysterical habituation, the second with a comparison of certain hysterical outbursts with voluntary reflex intensification, and the others with the mechanisms of volition and action. There is a new note in these studies and they are not to be passed by casually. E. W. T.

Medizinische Pyschologie—By Ernst Kretschmer. 306 pages. Leipzig: George Thieme. 1922.

This is the second edition of Kretschmer's Psychology, designed for the use of medical men interested in psychiatrical problems. Possibly it is an answer to Mercier's statement that no psychology so far written was of any use to a psychiatrist. This booklet presumes a fair knowledge of academic psychology, and is a bridge between that and the practice of psychological medicine. It will be found distinctly worth while and can be recommended as stimulating reading.

Surgical Pathology — By Joseph McFarland. 701 pp. Illustrated. Philadelphia: P. Blakiston's Son & Co. 1924.

From his wide and varied experience as consultant and teacher of pathology, the author of this interesting and instructive book has brought together and emphasized those aspects of pathology that have been found of special interest and importance to the surgeon.

As stated in the preface, the book was prepared

especially for continuous reading, although it is of service also as a book of reference.

The subject matter of the text is arranged in logical order and sequence; the subjects are treated in an interesting and instructive manner and not only are accepted facts and theories presented, but the author gives in concise form other theories with criticism of the same.

There are four hundred thirty-five illustrations of gross and microscopic surgical lesions. There is also a bibliographic index of twenty-eight pages.—J. F. C.

BOOKS RECEIVED

Mortality Statistics 1921—Twenty-second Annual Report. Department of Commerce, Bureau of the Census. W. M. Stewart, Director. Price $1.75. Sold only by the Superintendent of Documents, Government Printing Office, Washington, D. C. Washington Government Printing Office, 1924.

Mind and Medicine, by Thomas Salmon, M. D., Professor of Psychiatry in Columbia University. New York: Columbia University Press, 1924.

Fertility and Sterility in Human Marriages—By Edward Reynolds, M. D., Boston, Mass., and Donald Macomber, M. D., Boston, Mass. With a section on the Determining Causes of Male Sterility, by Edward L. Young, Jr., M. D., Boston, Mass. Octavo volume of 285 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1924. Cloth, $5 net.

Diseases of The Eye—A Handbook of Ophthalmic Practice for Students and Practitioners. By George E. De Schweinitz, M. D., LL. D. Professor of Ophthalmology in the University of Pennsylvania. Tenth Edition, Reset. Octavo of 865 pages with 434 illustrated and 7 colored plates. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $10 net.

Anesthesia—By James Tayloe Gwathmey, M. D., First President of American Association of Anesthetists, Anesthetist to the New York Skin and Cancer, Columbia, and Peoples Hospitals. With collaborators on special subjects. Illustrated. Second revised edition. New York and London: The Macmillan Company, 1924.

Diseases of the Chest and the Principles of Physical Diagnosis—By George W. Norris, M. D., Professor of Clinical Medicine in the University of Pennsylvania, and Henry R. M. Landis, M. D., Director of the Clinical and Sociological Departments of the Henry Phipps Institute of the University of Pennsylvania, with a chapter on the Electrocardiograph in Heart Disease, by Edward Krumbhaar, Ph. D., M. D., Director of Laboratories of the Philadelphia General Hospital. Third Edition, Revised. 907 pages with 433 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $9.50 net.

1923 Collected Papers of The Mayo Clinic and The Mayo Foundation, Rochester, Minnesota. Octavo of 1377 pages, 410 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $13 net.

The Romance of a Living Temple—A Study of the Human Body. By Frederick M. Rossiter, M. D., Professor of Medicine in the College of Medical Evangelists, Los Angeles, California. New York: George Sully and Company.

Clinical Aspects of the Electrocardiogram, a Manual for Physicians and Students. By Harold E. B. Pardee, M. D., Associate in Medicine, Cornell University Medical School. With 56 illustrations. Paul B. Hoeber, Inc., New York, 1924.

Life Insurance Examination, Edited by Frank W. Foxworthy, M. D., Indianapolis. Formerly Chairman Medical Section, American Life Convention, President of American Association of Medical Examiners. 156 illustrations. St. Louis: C. V. Mosby Company, 1924.

Modern Methods of Treatment—By Logan Clendening, M. D., Assistant Professor of Medicine, Lecturer on Therapeutics, Medical Department of University of Kansas. With chapters on special subjects by H. C. Anderson, J. B. Cowherd, Carl O. Richter, F. C. Neff, E. H. Skinner, E. R. DeWeese. Illustrated. St. Louis; C. V. Mosby Company, 1924.

A Diabetic Manual, for the Mutual Use of Doctor and Patient. By Elliott P. Joslin, M. D., Clinical Professor of Medicine, Harvard Medical School. Illustrated. Third Edition, thoroughlq revised. Lea & Febiger, Philadelphia and New York, 1924.

Eat Your Way to Health, a Scientific System of Weight Control. By Robert Hugh Rose, M. D., Instructor, Post Graduate Medical School, New York. New Edition, thoroughly revised and enlarged. Funk & Wagnalls Company, New York and London, 1924.

The Internal Secretions, for the Use of Students and Physicians, By D. Arthur Weil, Assistant Professor of Physiology at the University of Halle. Authorized translation of the third German edition by Jacob Gutman, M. D., Director Brooklyn Diagnostic Institute. New York: The Macmillan Company, 1924.

TRUTH ABOUT MEDICINES

New and Non-official Remedies

(Reported by the Council on Pharmacy and Chemistry of the A. M. A.)

Neutral Acriflavine (Abbott) 0.1 gm. Ampules.—Each ampule contains 0.1 gm. neutral acriflavine—Abbott (see New and Non-official Remedies, 1924, p. 24). The Abbott Laboratories, Chicago.

Cryogenine—Phenylsemicarbazide.—Cryogenine is an antipyretic and analgesic. It is claimed that cryogenine does not affect digestion and that it has scarcely any effect on the circulation and respiration. Cryogenine is claimed to be useful as an antipyretic in febrile conditions. As an analgesic, it is said to be of value in rheumatism, headache, sciatica, gout and in painful conditions generally. Cryogenine is marketed in the form of powder and 0.5 gm. tablets.

Iletin (Insulin-Lilly) U-40.—Each ampule contains 40 units of iletin (Insulin-Lilly) (see New and Non-official Remedies, 1924, p. 152). (Jour. A. M. A., May 3, 1924, p. 1443.)

Desiccated Parathyroid Substance (Wilson)-—The exterior parathyroids of the ox, freed from fat, cleaned, dried and powdered. For a discussion of the actions and uses of parathyroid gland, see New and Non-official Remedies, 1924, p. 224. Desiccated parathyroid substance (Wilson) is marketed in the form of powder and in tablets containing, respectively, 1/20 grain and 1/10 grain. Wilson Laboratories, Chicago. (Jour. A. M. A., May 24, 1924, p. 1693.)

Meads Powdered Protein Milk—A milk preparation having a relatively high protein content and a relatively low carbohydrate content. Each 100 gm. contain approximately protein 37 gm., butter fat 31 gm., free lactic acid 3 gm., lactose 19 gm., and ash 4.6 gm. When suitably mixed with water, powdered protein milk is said to be useful for correcting intestinal disorders of infants and children. Mead, Johnson & Co., Evansville, Ind.

Pollen Antigens (Lederle)—In addition to the products listed in New and Non-official Remedies, 1924, p. 252, the following have been accepted: Giant Ragweed Pollen Antigen (Lederle); Green Sage Pollen Antigen (Lederle); Lamb's Quarters Pollen Antigen (Lederle); Marsh Elder Pollen Antigen (Lederle); Olive Pollen Antigen (Lederle); Pasture Sage Pollen Antigen (Lederle); Southwestern Ragweed Pollen Antigen (Lederle); Western Water Hemp Pollen Antigen (Lederle); Western Ragweed Pollen Antigen (Lederle). Lederle Antitoxin Laboratories, New York.

STANFORD UNIVERSITY SCHOOL OF MEDICINE

The following students were awarded the degree of Doctor of Medicine by Stanford University on June 23, 1924: Miss Emelie E. Anderson, Harry V. Baker, Harold J. Beaver, Donald V. Burke, Everett Carlson, John Joseph L. Doyle, Paul W. Frame, Miss Anna C. Franklin, Percy B. Gallegos, Franklin H. Gobar, Hans Hartman, Miss Frances I. Klingberg, Miss Margaret E. Lamson, Charles A. Love, Jr., Roger B. McKenzie, Homer E. Marston, John K. Morris, Jr., William H. Murphy, Burton A. Myers, Roy F. Nelson, Lewis H. Sanborn, John P. Sweeney, Harold S. Trueman, Granville N. Wood, Jr.

FAMILY PHYSICIAN OF FUTURE

In commenting on the importance of preventive medicine to the general practitioner, John M. Dodson (Journal A. M. A.) says: "In the field of medicine, factors had been at work before the outbreak of the war, which, alone, would have been sufficient to bring about a radical change in the economic and social relations of the physician. The triumphs of preventive medicine resulting in a very substantial decrease in the incidence of disease was, and continues to be, an appreciable and growing factor in reducing the average income of the physician. The number of physicians had come to be greatly in excess of the need, a ratio nearly twice as great as that obtaining in any other country. The rapid increase in the number of hospitals and the hospitalization of medical practice in many localities, the inevitable and rapid development of specialism, improved roads, and automobiles have had their effect in modifying the situation of the physician in rela-

"New medical cults and fads appear from time to time, a new one every few years. Just now the most conspicuous ones in the field are Eddyism, or so-called Christian Science; osteopathy, with its hybrids, chiropractic, naprapathy and the like, and, most recently, Abramsism, the most fantastic and incredible of all.

"Finally, some of the handmaidens of the physician, conspicuously the nurse and the social service worker, invaluable aids when properly directed, have crossed over into fields of work inadequately tilled by the busy practitioner, until at times it seems difficult to draw the boundary line between the field of the physician and that of the nurse or of the social service worker.

"As to the encroachment on the domain of the physician by the nurse, the social service worker and other outside agencies, these have been due for the most part to the fact that the physician has neglected certain fields of activity which were important and in which work needed to be done. All that is needed is a readjustment of the relations of the physician to the members of those other groups, who are quite indispensable as aids to the physician, if the best results are to be accomplished. Such results cannot be obtained by the usurping of the physician's field by others who are not trained to do the work that belongs to him. No more can these results be obtained when the physician neglects these lines of activity.

"The family physician who seeks to render to his patients the service which will do them the most good is bound to enter the field of preventive medicine: to become, in other words, the family health adviser as well as the family physician. It is not entirely, nor indeed for the most part, the fault of the physician that he has not given more attention to this matter in the past. His patients have sought him only when needing relief from pain or when seeking cure from disabling illness. The conception that positive health conducing to happiness, comfort, and efficiency is something that can be had by going after it; that is, by observing sane, correct methods of living, is one that is just dawning on the minds of the vast majority of people.

"The physicians of our own generation, if they are to realize their possibilities of usefulness to the communities in which they live, must equip themselves far better than they have been heretofore equipped to give instruction to the public concerning community and especially individual hygiene. They must co-operate cordially and effectively with the duly appointed health officers, not only in complying with the legal requirements as to the reporting of births, deaths, cases of communicable disease, and the like, but in the matter of arousing the citizens of the community to the importance and great possibilities of preventive measures.

"Training of the family physician for such work can be accomplished only by a considerable amount of carefully planned, systematic, effective instruction along the lines of preventive medicine."

Obituary

FREDD ORLANDO PRYOR

Doctor Pryor was stricken with apoplexy while examining a patient on July 1, and died a short while after. He was fifty-three years of age; was born in Nevada County, California; graduated from the Cooper Medical College, San Francisco, and has been practicing in Sonoma County since 1905. He is survived by a widow and sister.

Doctor N. Juell, secretary of the Sonoma County Medical Society, in speaking of Doctor Pryor's passing, says that "his interest in progressive medicine, love of truth, always ready to fight for what he considered right, but with a keen sense of humor, made him the most valuable member of our society. He had high ideals especially in regards to honesty in dealing with his patients and tried to live up to them."

The press correspondent voices the sentiment of his community when she says: "Now he is gone and the smile will come no more. Faithful to the last, he was in the merciful ministration of misery alleviation when death laid a cold finger on his own brow. He bowed his head in submission to the summons and now a community mourns. His keen and sparkling humor, his honorable principles and his genuine manliness made him esteemed where men foregather. His high purpose, his ardent desire to do his individual part in the work which the Master of the World set for men to do, his humanness and sympathy made him trusted by women and children. His noble character, his understanding and friendliness, the love in his own heart, made him beloved of friends, many, many."

DEATHS

Boyes, Edwin Joseph. Died at Oakland, July 3, 1924, age 58. Graduate of the Victoria University Medical Department, Toronto, Canada, 1890. Licensed in California 1891. He was a member of the Alameda County Medical Society, the California Medical Association and a Fellow of the American Medical Association.

Dowdall, Richard John. Died at San Francisco, July 10, 1924, age 51. Graduate of Cooper Medical College, San Francisco, 1901. Licensed in California the same year. He was a member of the San Francisco County Medical Society, the California Medical Association and a Fellow of the American Medical Association.

Kurtz, Joseph. Died at Los Angeles, June 22, 1924, age 82. Graduate of the University of California Medical School San Francisco 1872. Licensed in California in 1876. He was formerly a member of the Los Angeles County Medical Society, the California Medical Association and the American Medical Association.

Ross, Frederick William. Died at Corte Madera, July 9, 1924, age 51. Graduate of Cooper Medical College, San Francisco, 1896. Licensed in California in 1897. He was a member of the San Francisco County Medical Society, the California Medical Association and the American Medical Association.

Pryor, Fredd Orlando. Died at Santa Rosa, July 1924, age 53. Graduate of Cooper Medical College, San Francisco, 1898 and licensed in California the same year. He was a member of the Sonoma County Medical Society, the California Medical Association and a Fellow of the American Medical Association.

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Immunization of Children Against Flexner Dysentery—Seventy children in an institution in which Flexner dysentery was endemic were inoculated by Lawson Wilkins and H. S. Wells, Baltimore (Journal A. M. A.), with a monovalent Flexner vaccine made from a strain isolated from one of the patients. Three doses of 250, 500, and 1000 million respectively, were given subcutaneously. Among the seventy children, only two had general reactions. These reactions can be attributed to the improper preservation of the vaccine. Local reactions were mild. In the two months prior to vaccination, ten cases of dysentery had occurred, and the usual methods of control had failed to prevent the spread of the disease. After vaccination, only one child developed dysentery. The vaccine had not produced agglutinins in the serum of the one child who contracted dysentery after inoculation. The other children, tested six weeks after vaccination, had definite agglutinins.

Artificial Light Therapy in Tuberculosis—Under the influence of light, the blood in rickets shows an increased phosphorus content, and calcium deposition in the epiphyses of the long bones readily takes place. The blood in tetany shows an increased calcium and phosporum content and, clinically, the disappearance of such symptoms as carpopedal spasms, laryngospasms and convulsions after a few exposures to quartz mercury vapor radiations. Lupus vulgaris of the skin is healed by combined local and general light exposures in almost 90 per cent of cases. Extrapulmonary tuberculosis in many forms yields to treatment with sunlight and artificial light radiations. These results have been so clear cut in a large number of cases and yield so much promise that Edgar Mayer, Saranac Lake, N. Y. (Journal A. M. A.), feels that a knowledge of light and its clinical applications has become a requisite not only of the physiotherapist, but also of the general practitioner. He reviews his experience during six years and discusses physical characteristics of light, photochemical action of separate regions of the spectrum; action of ultraviolet rays on protoplasm; the physiologic action of light; the skin as an organ; and quartz mercury vapor and carbon arc lights. Brief reference is made to the use of light, more especially the mercury quartz, in intestinal tuberculosis; hilum tuberculosis; superficial tuberculosis and lupus vulgaris.

Most Americans, educated or uneducated, rich or poor, young or old, except the men trained for the medical, the artistic or the scientific professions, cannot see or hear straight, make an accurate record of what they have just seen or heard, remember exactly for an hour what they suppose themselves to have seen or heard, or draw the just, limited inference from premises—true or false—which they accept.—President Emeritus Charles W. Eliot of Harvard, writing to advocate education of the senses and reasoning power.

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(Continuing the California State Journal of Medicine)

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VOL. XXII SEPTEMBER, 1924 No. 9

ACUTE PANCREATITIS*

By J. H. Woolsey, M. D., and G. D. Delprat, M. D.

STUDIES during the past decade have warranted certain modification in our conception of the disease.

Symptoms now definite enough to warrant diagnosis.

The varying degrees of severity of the disease may be recognized clinically. The cause or causes still not fully understood.

Treatment may be conservative in mild cases, but in severe and recurrent cases surgery is the only safe treatment.

ACUTE pancreatitis is not rare. It is a lesion frequently misdiagnosed as an inflammatory condition of the gallbladder, duodenum or stomach. Not a mistake in diagnosis due to neglect of consideration for the condition as a possibility, but due to a misunderstanding of the course of the disease and the varying degrees it may follow. The diagnosis should more often be made pre-operatively.

Considerable progress has been made in the study of the pancreas in the past ten years and our understanding of the etiology and pathology of acute pancreatitis has had to be somewhat remodeled.

PATHOLOGY

Fitz, in 1889, classified pancreatitis as hemorrhagic, suppurative and gangrenous. This classification is still employed and to it a fourth type, non-suppurative, has been added by others. However, the profession has come to realize that these several forms of pancreatitis are only separate stages of the same condition. For many years the dispute raged as to whether hemorrhage or inflammation was the primary lesion. Today it is known that a necrosis of tissue precedes both and that they are but attributes of the general picture. Archibald says, "the fundamental lesion (of all pancreatitis) is a necrosis of the parenchyma, a necrosis apparently caused by the action of a powerful chemical irritant rather than by bacterial inflammation, and that surrounding such areas of necrosis there occur the usual pathological lesions of reaction to an irritant, namely, edema, congestion, hemorrhage, in-wandering of leucocytes and of young fixed connective tissue cells and thrombosis." At the operation table one sees an enlarged gland, two to three times normal size, with irregular red, yellow or black areas upon a white background and on palpation one finds the gland indurated in a coarsely nodular manner with perhaps some of the red (hemorrhagic) or black areas of softer consistency. The gland is entirely covered with peritoneum of dull lustre. In the lesser peritoneal cavity, especially, but also in the general peritoneal cavity, may be seen fluid, serous, sanguinous, or seropurulent. Minute to ¼ cm. areas of opaque white or yellowish white nodules, fat necroses, are seen in the omentum over the pancreas and have been found as far removed as in the mediastinal, pericardial or even the subcutaneous fat.

In four patients who came to operation on this surgical service, all showed marked enlargements of the pancreas. One, in which apparently a cholelithiasis and possibly a "ball-valve calculus" played a part, showed the chief enlargement in the head of the pancreas. Of the two cases that died one showed marked widespread necrosis of the pancreas, an intraperitoneal hemorrhagic fluid and fat necrosis in the omentum; the other patient showed an intraperitoneal seropurulent fluid, widespread intraperitoneal and omental fat necrosis. A fourth patient, operated earlier, and therefore in better condition than the other three patients, although suffering from the usual severe epigastric pain unrelieved by morphine sulphate, showed a general enlargement of the pancreas to three times normal with a constant hemorrhagic color interspersed with 0.5 cm. areas of the normal greyish white pancreatic tissue, a thin intraperitoneal sanguino-serous fluid and fat necroses in the large and small omenta.

Fat necrosis is caused by the lipase of the pancreatic juice splitting the neutral fat into fatty acids and glycerin, after which the former unites with calcium salts and so assumes the opaque white nodular appearance. The lipase is carried by the lymphatics and therefore acts at a distance. The question of whether the lipase needs some special agent for activation is disputed, but in the light of our present knowledge such an agent does not seem to be required.

Trypsin exists in the pancreatic juice in the form of an inactive pro-ferment, trypsinogen, which is activated by enterokinase in the duodenum, but is also activated by the tissue juices under certain conditions such as an inflammatory state where calcium is present. The necrosis in the pancreas in the acute stage is supposedly due to the autodigestion from the activated trypsinogen. The resulting split proteins from this digestion are absorbed by the lymphatics or blood stream in order to be excreted. In the light

* From the Department of Surgery, University of California Medical School, San Francisco.

of our new knowledge of proteose intoxication and the demonstration by Cannon and his co-workers that "shock" is due in most instances to the broken down proteins, we see in certain clinical pictures of the severe acute pancreatitis an analogy to that of traumatic shock, intestinal obstruction and absorption from wounds covered by large amounts of devitalized tissue. Cyanosis of the lips and extremities associated with a loss of the local body heat, a lowered blood pressure and a general toxemia are the symptoms primarily of shock and should only be considered of secondary value in the diagnosis of acute pancreatitis

ETIOLOGY

The cause of pancreatitis is still somewhat theoretical. Archibald attributes it primarily to the regurgitation of bile changed by lack of normal mucus into the pancreas through the duct of Wirsung. Others have corroborated this, especially when the bile contains bacteria or some irritant substance. Deaver, Maugeret, Graham and others have shown that the lymphatics have a definite course by which the pancreas may be involved secondarily from a cholecystitis, gastric or duodenal ulcer. That the condition may be hematogenous in origin is very suggestive, as it has occurred coincident with epidemic parotitis, typhoid fever, scarlet fever and furunculosis. Rosenow has demonstrated that micro-organisms cultured from the teeth and tonsils of patients with cholecystitis and pancreatitis have reproduced the same in rabbits and dogs. Trauma has been held responsible for pancreatitis. Haggard cites a case where a patient was seized with the severe epigastric pain on simply turning in bed, and presumably was proven to have an acute pancreatitis.

Of the five patients which led to the closer study of this condition, four definitely proven by operation, and one diagnosed independently by three physicians but not operated upon; two had gall-stones with previous history of gall-stone colic and typical indigestion; one had suffered a severe fall four months previously and undergone an operation for osteotomy of the radius just immediately preceding the onset of symptoms; one had been knocked down by an automobile twenty days previously, suffering severe contusions to the extremities, but without apparent abdominal or thoracic injury; and one gave a history of usual good health without either previous indigestion or injury. None had had any cutaneous, tonsillar, dental or cranial sinus infection.

SYMPTOMATOLOGY

Pain—The cardinal symptom of acute pancreatitis is pain. This is sudden in onset and excruciatingly severe. It is confined to the epigastrium and occasionally radiates around both sides to the midscapular region. Average-sized doses of morphine do not influence the acute exacerbations of the pain, which may be continuous for hours and then gradually subsiding. A history of previous "chronic indigestion" or "upper abdominal distress" may be misleading, for as frequently the patient is free from such symptoms. Jones states that after the first severe attack the pain in the epigastrium and in the upper lumbar region becomes "a great distress" from which the patient demands relief. In our series, after the initial attack, the patients described the sensation as one of great weight in the upper abdomen.

Following and accompanying the pain is an epigastric *tenderness* over the area of the pancreas and equal in extent to the area of the pancreas involved. Preioni in a series of ten cases found it present in each case at a point 4 cm. above and 2 cm. to the left of the umbilicus. Ochsner describes the tenderness as located at Mayo-Robson's point and elicited by deep pressure over a point a little to the right of, and 5 to 10 cm. above, the umbilicus over the right rectus abdominis muscle.

Rigidity of the Abdominal Muscles—In this series three of the patients, those with the most severe symptoms, demonstrated moderate to marked rigidity, but two showed none whatsoever. Moynihan has found cases of acute pancreatitis to be lacking in rigidity, but Ochsner's experience has been to the contrary. Egdahl in a review of 107 cases does not speak directly of rectus rigidity, but refers to his failure of finding tender masses in the abdomen through the presence of a reflex spasm of the muscles. Archibald states "rigidity usually is absent or slight, except in the later stages when the peritoneum is involved." Rigidity of the recti in other abdominal lesions is present when the corresponding intercostal nerves or segments are irritated. It would seem, therefore, that it would not be present until the parietal peritoneum is involved. This may not occur in some instances, while in others with extensive fat necrosis, etc., it should be expected.

Nausea and Vomiting—Three of the patients had moderate nausea and vomiting; one, the most severe case, showed marked vomiting, and one of the severe cases, none at all. Nausea and vomiting are prominent symptoms as a rule. These symptoms, accompanied by distention, often lead to the mistaken diagnosis of intestinal obstruction. Persistent nausea alone does not occur.

Abdominal Distention — All patients showed a moderate to severe degree of distention directly proportional to the slight or marked peritoneal involvement. This symptom is listed by all writers and is believed to be due to irritation of the solar plexus, causing motor disturbances in the intestines. Egdahl describes it as a marked feature; out of 107 cases which he reviewed it occurred in fifty-four.

Graphic Chart—This is only of relative value. The pulse is rapid, ranging from 100-160 and of small volume. The temperature varies from 105.8 to subnormal. Egdahl found in twenty-two cases with accurate temperature observations one case with 105.8, two with 103 F., ten with 100 F., or slightly plus and six subnormal. The respirations are usually increased in rate and shallow, due in some instances to the pain of a deep respiratory excursion. Archibald states the pulse and temperature remain normal in the earlier stages, but if suppuration results or other complications, such as shock, intervene, the findings will change accordingly.

Leucocytosis—In this series the leucocyte count varied from 7000 in the most severe case (six hours before death) to 23,600. Other counts were 23,000, 16,000, and 15,000. Jones quotes leucocyte counts varying from normal to 15,000. Egdahl differentiates between the leucocyte counts occurring in the

suppurative type and in the hemorrhagic type, the latter being lower, but cites no figures.

Cyanosis was recorded only in the two patients that died. In one, on the fifth day preceding the end of life, and in the other from time of observance, twenty-four hours before death. This subject with the other signs of shock have already been discussed. It should be considered as a late sign—that is, when the degree of inflammation is most marked.

The *laboratory tests* of pancreatic insufficiency are of no value from the diagnostic point of view and are too complicated to employ when this acute condition presents itself.

TREATMENT

In the mild cases treatment must be supportive and symptomatic. Fluids must be forced, intravenous, subcutaneous or per rectum. Alkalies by mouth will decrease gastric acidity and reduce gastric motility. Morphine and its derivatives must be prescribed freely to alleviate pain and insure absolute quiet. Hot or cold packs are of little value, and although they may give some subjective feelings of comfort, are generally rejected by the patient who cannot bear the pressure of any object against the upper abdomen.

With our present knowledge, the treatment in the moderately prolonged or recurrent cases is surgical and decidedly so with the severe cases. Surgery endeavors to do two things—drain the toxic products of the pancreatic necrosis, which in addition aids to prevent further extension, and to relieve the cause—i. e., drainage of a gall-bladder or removal of a common bile duct block.

Drainage should be accomplished by multiple incisions in the covering peritoneum and capsule of the pancreas with the manual removal of all loose necrotic tissue. Incision into the pancreas itself is of doubtful value and most probably tends to produce paths for further necrosis, escape of additional pancreatic ferment and unnecessary hemorrhage. The drainage should be sufficient to allow the necrotic material to escape, and the drain can be brought anteriorly through the abdominal incision as well and as easily as through a separate left flank incision. The intraperitoneal fluid should not be drained or removed further than the overflow, for it has been proven to be harmless and is considered by many to possess protective qualities.

A cholecystostomy or choledochostomy may be indicated not only as an immediate measure, but also as a prophylactic value in the recurrent cases. A cholecystectomy, however, in the latter instance, should be considered preferable. Drainage of the bile tract for acute pancreatitis should be maintained for four to six weeks, and Archibald advises a period of three weeks to three months. A few advise strongly against a cholecystenterostomy. We can add no further information on this point, but this procedure is certainly an excellent one in other instances of block of the common biliary duct.

CONCLUSION

Acute pancreatitis is not rare. It occurs in varying degrees of severity and has definite symptoms and signs by which a diagnosis can be made. In the mild cases it can be treated conservatively, but in the recurrent and severe cases surgery is the only safe method.

135 Stockton Street, San Francisco.

DISCUSSION

Harold Brunn (380 Post Street, San Francisco)—I am very glad of the opportunity to discuss this very excellent and timely paper. Acute hemorrhagic pancreatitis is frequently undiagnosed previous to operation. On the other hand it not infrequently enters into the diagnostic possibility in acute abdominal surgery, but more often than not is disappointingly absent. This state of affairs is brought about by several factors. In the first instance the disease is uncommon, its symptoms are variable, especially as regards leucocytosis and rigidity. The leucocyte count may be either high or low, depending on the stage of the disease or the severity of the involvement. The rigidity is either marked as in acute perforation, or absent as in obstruction. It is for this reason that a differential diagnosis between acute perforation, obstruction, and acute pancreatitis is difficult to make.

The onset of the disease is usually described as accompanied by severe shock and frequently cyanosis. In the cases that I have seen, while the pain was severe the shock as such was not a permanent symptom, nor was cyanosis observed. This, of course, may have been present, but transient.

One very interesting case shows how mild the symptoms of pancreatitis may be, going undiagnosed for a period of years until the final attack. This patient was seen with Dr. Meininger. She was a woman 29 years of age, very obese. Her attacks began during the second month of her pregnancy. They were at this time quite mild, accompanied by but slight fever and leucocytosis, frequently requiring morphine, however. After her childbirth the attacks occurred every six weeks to two months for a period of one year. The attack was ushered in first with severe upper abdominal pain, followed by vomiting, which seemed to relieve somewhat the pain. Many of the attacks lasted only a few hours, to return the next day; but the patient was never disabled more than a few days at a time, until the last attack, which occurred on September 18, 1917. This attack began at 4 p. m. with severe abdominal pain which she considered similar to her other attacks. Vomiting occurred at 8:30, which brought some relief, and the pain gradually passed off during the night. On the following day, about 4 p. m. the pain recurred and at 10:30 became excruciating, and was not relieved by three-quarters of a grain of morphine. She was operated upon the following day, when an acute hemorrhagic pancreatitis was found with fat necrosis in the omentum and a large quantity of bloody fluid in the abdomen. There were no stones found in the gall-bladder or biliary tract. The gall-bladder was not drained at operation. The patient recovered and has had no attacks since, an interval now of seven years. This case, therefore, illustrates very well the mildness of these attacks, which were evidently not due either to gall-bladder disease or gall-stones, but must have been due, since she has been entirely cured, to the pancreatic condition.

In conversations with Dr. Whipple he always maintained that operation for acute hemorrhagic pancreatitis was unnecessary; that if recovery was possible, it occurred in spite of operation. He came to this conclusion through experiments on animals. I believe, however, that this theory is not sustained by practical experience. The removal of the irritating fluids from the abdomen by drainage protects the rest of the peritoneal cavity, relieves the patient, and gives the rest of the pancreatic tissue a chance to recover.

These patients are suffering from a proteose intoxication due to absorption of broken down tissue. They are, therefore, poor surgical risks and operation should be done quickly, with as little exposure as possible and as little trauma. The pancreas should not be blindly broken up with the finger. This adds materially to the shock, it is not efficacious, and much pancreatic tissue that might be saved is destroyed, besides

adding to the intoxication, since the broken down tissue cannot be drained away.

The pancreas lies retro-peritoneally behind the lesser sac. Therefore this sac should be drained down to the pancreas. If the head of the pancreas is involved, I have found the easiest point of drainage to be a right flank incision with a tube extending through the Foramen of Winslow into the lesser sac. We have found, where we have had drainage through the gastrohepatic omentum directly through the wound and a tube through the Foramen of Winslow passing out through the loin, that practically all the secretion is carried off through the tube and the dressings have to be changed constantly. Drainage through the Foramen of Winslow, therefore, is a very much simpler and more efficacious way of preventing the irritating fluid from entering the general peritoneal cavity. If the tail of the pancreas is involved, drainage should be made through the left loin, passing over the kidney into the lesser sac. If the case is operated on early and there is not much destruction of the pancreatic tissue, and it does not go on to necrosis, drainage for a week only is sufficient. When the operation is performed later with necrosis and sloughing away of the pancreas, counter incisions should be made large enough to permit of drainage for a longer period.

I believe, therefore, that operation is justifiable if it be remembered that it is an operation of drainage which should be done quickly and without traumatization.

C. P. Thomas, M. D. (Consolidated Building, Los Angeles)—This splendid paper of Drs. Woolsey and Delprat is very much worth while from every standpoint. Their classification of pancreatic troubles is most interesting and practical.

It would seem to me that inflammation here, as elsewhere in the body, must of necessity be of bacterial origin; the necrosis being due to the infection rather than the infection being caused by the necrosis. Owing to the liberal blood supply of this organ I cannot think of any chemical substance which could be there, that would cause necrosis unless it were accompanied by bacteria.

The enormous congestion and edema present in the pancreas in these cases, with usually increased leucocytosis, and sometimes without much necrosis, would, I think, also be further proof of its bacterial origin.

The fat necrosis found in remote portions of the abdominal cavity are doubtless late manifestations of the disease and secondary to the pancreatic involvement.

The doctors have very ably described the early symptoms of acute pancreatitis, and if it is due to infection, whether it is through the duct, lymphatics or the blood, is of but little practical importance.

I doubt very much whether real acute pancreatitis should ever be treated medically, and I am of the opinion that any violent upper abdominal pain accompanied by the characteristic shock symptoms which is not actually cleared up so far as that attack is concerned by one moderate dose of morphine, should be treated surgically and as early as possible. If opium and its derivatives were given less, or not at all, most of these cases would be gotten to the surgeon early enough to insure a very much greater percentage of cures. The cases I have seen have shown symptoms resembling perforating, gastric or duodenal ulcers, rather than those of appendicitis or gall-stone colic. Early surgical treatment of those conditions is also desirable.

Surgeons have known for a long time that chronic pancreatitis generally accompanied chronic gall bladder troubles, and doubtless occasionally acute pancreatitis is caused by stones in the duct or gall-bladder.

The treatment consists in proper early drainage, and the correct treatment of any complicating gall-bladder troubles, which may be present—all of which should be done quickly and with the least possible amount of peritoneal trauma.

I sincerely feel that Drs. Woolsey and Delprat are entitled to credit here for their very able presentation of a very difficult subject.

Dr. Woolsey (closing)—The "irritative fluid" of which Dr. Brunn speaks must be understood as that composed of the necrosed pancreatic tissue which would then be absorbed or which may become the foundation for an infected abscess. The free peritoneal fluid occurring with this pathology is not irritative but protective, and drainage of this or any attempt to wash it out is therefore contra-indicated. We are grateful for his clear expose of the surgical treatment.

Necrosis of the pancreas, with the resultant pathology, is due primarily to an interference to blood supply which may and no doubt usually is of bacterial origin. The continuance of the tissue destruction and the symptoms of the patient, however, are due to a proteose intoxication as a result of the action of the liberated pancreatic ferments.

The Exercise Cardiac Functional Test in 100 Cases of Heart Disease—The exercise cardiac functional test is performed by requiring the subject to undergo some sort of vigorous exercise. In applying this test, Duane W. Propst, Chicago (Journal A. M. A.), has used a body-bending exercise repeated twenty times in forty-five seconds, and has taken the blood pressure at the intervals suggested by Brittingham and White. Among 100 men there were sixty-six cases of mitral regurgitation, eight of mitrol stenosis, fourteen of aortic regurgitation, and twelve of combined valvular lesions. All were free from any evidence of heart failure at the time of the examinations. The results were at variance with those of the proponents of the test. The blood pressure reaction of all of the subjects with mitral regurgitation was normal; that is, there was neither a delayed rise nor a prolonged fall in the systolic blood pressures. Moreover, the diastolic pressures during the test did not vary more than 4 mm. of mercury from the pre-exercise levels, in spite of the fact that seven men gave a history of decompensation at from two to five years prior to my examination. On the other hand, the time required for the pulse to return to the pre-exercise rate was definitely prolonged in 53 per cent of the cases. In thirty-five of the series of sixty-six cases of mitral regurgitation, the pulse did not return, after exercise, to the rate at rest for from four to fifteen minutes. Two of eight patients with mitral stenosis gave abnormal blood pressure reactions to exercise. Of fourteen patients, with aortic regurgitation, only one gave a delayed rise in the systolic blood pressure. A tardy return of the pulse to normal after exercise was observed in half of the subjects. The effect of exercise on twelve men, handicapped by combined valvular lesions, was interesting. In every case the pulse rate remained more rapid than normal for more than four minutes, following the twenty body-bending exercises. The average time required for the pulse to return to the pre-exercise level was eight minutes. In no instance was there a prolonged rise or a delayed fall in the systolic blood pressure. Since only 3 per cent of his cases with organic heart disease reacted to exercise by the so-called abnormal blood pressure response, Propst believes that this form of functional test can have little prognostic value.

Prophylactic Inocculation of Dogs Against Rabies—The evidence for the efficiency of prophylactic immunization in persons bitten by rabid animals has long been too convincing to permit of doubt. In Japan experiments to reduce the frequency of rabies by inocculation of the dog population show that its frequency with dogs has been greatly reduced.—(Journal A. M. A.)

THE PSYCHOLOGIC FACTOR IN ENURESIS*

By D. H. GIBBS, M. D., Los Angeles

The frequency with which we are consulted about bed-wetting caused me to review the literature that has been published on enuresis during the past ten years. The physiology of the mechanism of urination is not entirely understood. The work of Young, Cecil, Davis, Wesson, Stewart, Griffiths, Langley, Anderson, Mosso and Pellicani, Goltz and Ewald, Englisch, and others has done much to clarify this question. The spinal center of micturition in the conus terminalis is brought into relationship with the bladder by two sets of nerves: The hypogastric nerves, passing by way of the second and third lumbar nerves, and the inferior mesenteric ganglion to the vesical plexus, and the pelvic visceral nerves which pass through the third and fourth sacral roots to the vesical plexus direct. In adults the desire to urinate arises from stimulation of the sensory nerve-endings in the bladder wall, and in children under 2 years of age this stimulation sets up rhythmic contractions of the detrussor muscle associated with inhibition of the sphincters, resulting in a reflex emptying of the bladder uninfluenced by the will. At about this time the higher centers of micturition, which Stewart locates in the corpus striatum, the optic thalamus and the motor cortex begin to assert their hold on the spinal center, and the child gains control of micturition during the day.

By the end of the third year, control of the spinal center passes to the sphere of the higher centers, and becomes a habit, completing the education of the bladder. For a matter of discussion, I have considered that, in general, if a child habitually wets the bed after three years of age it may be said to be the subject of enuresis. Enuresis in children appears mostly at night. More rarely it may be present day and night. This emptying is involuntary and is accomplished without rousing consciousness.

Weitz believes that, normally, the contraction state of the sphincters is strengthened, partly reflexly and partly voluntarily, by the irritation produced on the brain by the contraction-feeling of the bladder, transmitted by way of the spinal cord. The absence or reduction of this irritation or interference with its transmission to the brain causes micturition to take place more easily. The irritation may be strong enough to be completely felt during the day, but so slight, or even absent during deep sleep, as to permit the unconscious emptying of the bladder. He, therefore, ascribes the absence or reduction of the contraction-feeling of the bladder as the pathogenetic cause of enuresis.

Sunden believes that consciousness is primarily at fault, and that dulling of the cerebral perception is the cause of enuresis. This may be developmental and associated with backward mentality, or due to profound sleep owing to the child being overtired mentally and physically, or to deficient oxygenation of the cerebral centers resulting from posture of the child, arrangements of blankets, or enlarged tonsils and adenoids.

Turner thought enuresis was due to a lack of development of the nerve center that controls the bladder, because it always appeared in young children. Grover and Fulton believe that enuresis is a definite symptom complex of disturbed reflex, which is the result of a general chronic neuro-muscular fatigue due to mental strain, lack of sufficient hours of rest and sleep, excessive muscular exertion and poor diet. This hypothesis is based on a study of over 200 cases, all of which were exceedingly active and nervous, had irregular sleeping hours, and were poorly nourished.

Walker believes that enuresis is due to the arrest of the education and discipline of the bladder. Nobel, because of his results in withholding water and foods of high water content; Nieman, by demonstrating that a potato and bread diet is rich in potash, which causes increased nocturnal output of urine; and Rietschel from his results obtained by dietetic treatment based upon his experiences with the war diet—rich in water, common salts, and carbohydrates—believe that diet plays an important part in the causation of enuresis.

Cameron assumes neurosis to be the cause, being produced by the sense of shame and mental distress involved. Klotz, studying the family history, lays the cause to a neuro-psychopathic constitution. Theimich, supported by the Breslau school, considers enuresis entirely a manifestation of hysteria. Williams, observing aggravation of symptoms following removal of tonsils and adenoids with rapid improvement upon giving thyroid extract; Hertoghe and Liopold Levi, upon observing good results after administering thyroid extract in certain cases, believe that thyroid insufficiency is a potent factor in the production of enuresis.

Van der Bogert believes that chronic gastro-intestinal disturbances play an important role in the production of enuresis, and bases his belief on the study of his series of cases in which enuresis occurs at the age when gastro-intestinal disorders and gross errors in diet are common. Redway, because of the close association of the optic and micturition centers in the brain and the results of six cases treated, believes that some, if not all, cases of enuresis can be traced to errors of refraction.

Abst, Schwartz, Saxl, and Kurzweil give elaborate etiological classifications. Grover, in the study of 200 cases, gives the following interesting facts: Fifty-six per cent gave a family history of enuresis; 79 per cent had been present from babyhood; 36 per cent had had their tonsils and adenoids removed; 51 per cent of the boys had been circumcized; and 20 per cent gave a history of pinworms. Schwartz gives practically the same percentage in 226 cases. Enuresis is then not a disease, but may be simply the persistence of an infantile condition or habit due to a lack of the restraining influence of the higher centers upon the micturition center in the spinal cord.

PROGNOSIS

The vast majority of cases recover; some earlier, some later, control being eventually established. The experience of the recent war showed a larger num-

* Read before the Southern California Medical Society, Santa Barbara, April 4, 1924.

ber of adult males suffering from enuresis than was previously supposed.

TREATMENT

The therapy of enuresis is far more hopeful than it was formerly considered, for, as a matter of fact, with the right psychic influence and by the means of a number of recommended methods of procedure, it is possible to cure the vast majority of bed-wetters. At no time are reproaches of value. It is most imperative to gain the child's confidence and co-operation. Assurances of his cure are of therapeutic value. Nesnera reports very good results in treating his enuretic soldiers by suggestion alone.

Before making a diagnosis of essential enuresis, and outlining the treatment, it is imperative that the following causes of incontinence be excluded:

1. Congenital anatomical defects: Spina bifida occulta, malformations of the genito-urinary tract, such as hypospadias, epispadias, etc.

2. Gross surgical lesions; calculus of the kidney or bladder; tuberculosis, and all inflammatory conditions of the genito-urinary tract—vesico-vaginal fistula, etc.

3. General diseases, such as anemia, malnutrition, neurogenic diseases, diabetes, spinal cord lesions, etc.

In order to establish a cure and guard against a relapse, no matter what method of treatment is used, it is important to remove all sources of irritation, as phimosis, adherent clitoris, pinworms, masturbation, tonsils, adenoids, etc., and restrict all liquids and foods of high water content, insofar as possible, during the second half of the day.

The following methods of procedure, which have been highly recommended from time to time as cures for enuresis, will be briefly outlined; but whether they owe their efficacy entirely to their therapeutic value, or to their psychological effect is an open question. Practically all of the present-day writers believe that the success obtained with any method of treatment is due in a large part to its psychic influence.

In 1901, Cathelin's epidural method was first published and was immediately translated into many languages, and a flood of supporting publications followed. Today we know that epidural injections possess therapeutic value, though not absolutely dependable as a cure for enuresis. The best results are reported from a small series of selected cases by Sicard and Freeman. The technique is as follows: With the patient lying on one side in extreme flexion, pierce the obturator membrane through the hiatus formed by the sacral spinal prominence and its two lateral tubercles above, and the cornu of the coccyx below. Inject 5 to 20 cc. of a one-half of 1 per cent novocaine or a physiological salt solution at weekly intervals. Occasionally, six or seven injections are used. Keep the child in bed twenty-four hours with the foot of the bed elevated twelve inches.

The rationale of the method is based upon the epidural pressure effect upon the cerebro-spinal fluid, the direct pressure effect upon the filaments of the cauda equina and the reflex tonic effect upon the lumbar center. Certain modifications of the epidural injections have been recommended as effective. The perineal injections of Cahier, Jaboulay's injection of normal saline between the coccyx and rectum, and simple spinal puncture, withdrawing 10 cc. of spinal fluid and injecting 12 cc. of normal saline solution. The success of these modifications has led some writers, notably Zappert and Rietschel, to draw the conclusion that epidural injection is a well-conceived, easily executed, and very impressive suggestion procedure.

Electricity is employed in many ways, making use of the galvanic, faradic or high frequency current. The negative electrode may be placed against the perineum, in the rectum, or by means of an insulated sound with an olive-shaped metal end directly against the membranous urethra. The indifferent electrode is placed against the lower part of the abdomen. The faradic current in perceptible but not painful intensity, about ten milliamperes, applied for three to ten minutes, repeated every three or four days, is most frequently used and should show results within one month. Von Buben has recently reported rapid improvement following treatment with thermo-penetration, which is a resistance heat generated in the tissue itself by a rapidly alternating current.

Many prominent German urologists and neurologists have assumed a primary underdevelopment or weakness of the internal sphincter as the cause of enuresis, and recommend the strengthening of this muscle by the use of electricity. It is now known that only a small percentage of cases belong to this group. Nevertheless, the results of electrical treatment are striking, especially in older children in which other methods have failed, probably due largely to the profound psychological effect.

Local treatment has been highly recommended by some urologists, but should generally be avoided in younger children. Weitz advised flushing the bladder through a small catheter with silver nitrate solution, beginning with 1/4000, gradually increased to 1/750, twice weekly. Lippman reports 66 per cent of cures in fifty consecutive cases followed up for six months using this method.

Thompson, following the suggestion of Mullins, trains the bladder muscle by passing a moderate-sized catheter and funneling fluid under a pressure of 15 to 150 cc. into the bladder in increasing quantities, removing the catheter, and having the patient void, stopping and starting the stream several times. The quantity used depends upon the size and age of the patient. This treatment aims at dilating the bladder muscle and training the micturition controlling muscles to work more efficiently. Furch, Gross, and Sandek have recently obtained good results with this exercise-therapy of the bladder by having the patient retain the solution as long as possible.

Neave has simplified this method by having the child sit in a chair and hold the urine after having the desire to void. Cantley states that gradual dilatation of the bladder is not necessary or advisable in the majority of cases. The passing of a bougie-a-boule, as used by Emerson, causes an irritation of the posterior urethra and vesical neck, thereby intensifying the sensory impulse to the brain suffi-

ciently to attract the patient's attention by causing pain when the urine passes into the posterior urethra, until the habit of control is established. Abst recommends bi-manual massage, with one finger in the rectum and the palm of the other hand over the symphysis. We have been able to cure one case by gentle massage of the prostate.

The repeated passing of sounds and the cauterization of the bladder-neck have passed into disuse. Walker and many of the German writers believe the results obtained with any local treatment are due to suggestion rather than any local action. Closing the meatus with collodion belongs in the same category. Blum has devised a penis clamp, which can be had in various sizes, and for which he claims good results. Plato recommends the wearing of a urinal, and believes the results are due to the psychic effect and to the effect upon the child's health of a dry bed.

The drug method is probably the oldest and the one most frequently tried first. A great many drugs have been given as specifics for enuresis from time to time. Belladonna is still the favorite, and is given in increasing doses up to 20 minims of the tincture three times a day, under careful supervision to prevent an overdose. Johnson believes that belladonna should be used only to break the habit, and never to be pushed for more than two months. The alkaline treatment, potassium and sodium acetate, sodium bicarbonate etc., is used if urine is highly acid, and acid sodium phosphate if urine is extremely alkaline. Iron is given in anemic cases; bromides in extremely nervous cases (rarely indicated), and thyroid extract, strychnine, and other excitants should be used only in the apathetic atonic class of cases. Mikhailow reports nineteen cases cured following three or four subcutaneous injections of pituetrin given weekly in 1 cc. and 2.5 cc. doses, depending upon the patient's age. Fisher has cured enuresis by giving sulphonal in doses of one grain for each year of the child's life every night for the first week; every other night for the second week, and every third night for the third week. The course is repeated in two or three months if necessary.

Potatzky uses camphor oil, because of its sedative effect upon the irritated conditions of the urinary and sexual organs, its stimulating effect upon the brain thereby combating deep sleep, and its stimulating effect upon the circulatory system. Calcium lactate was added in cases of general reflex over irritability. This brings to mind the possibility of hypo-secretion of the parathyroids. Antipyrin, valerian, potassium bromide, hyoscine hydrobromide, extract of ergot, aromatic fluid extract of rhus, and many others have been given a thorough trial, and for the most part given up.

The dietetic treatment seems better supported and more promising perhaps, and has in recent years been more thoroughly and systematically investigated than any other method. But whether a definite diet can cure enuresis or prevent its appearance is doubtful, and has yet to be proven. Nieman and Rietschel have demonstrated that a potato and bread diet is rich in potash which retards the urine output until night. Nobel has been well satisfied with the therapeutic results obtained by withholding water, not only in liquids, but also in solid foods with high water content. He furnished exact menus of variously concentrated food combinations arranged according to the Nem system. But as there were many relapses, and also because of the great difficulty of indefinitely depriving a child of water, Nobel's work is of more importance experimentally than as a method of cure for enuresis. The experience of the World War was a wholesale experiment of a diet leading to an abundant night discharge of urine rich in salts, and only such persons became bed-wetters in whom there was a local predisposition, or those who were previously enuretic. Diet relations may be a releasing, but not an etiological cause of enuresis.

There are, however, certain foods that should be eliminated from the diet in all cases of enuresis. Tea, coffee, and cocoa, as they are diuretic. Soups, broths, salty and highly seasoned foods are indigestible and diuretic. Bananas and raw apples interfere with the appetite and digestion. Sours and sweets, baked beans, corned beef, frankfurters, etc., should not be permitted. Meats and eggs should not be allowed for supper, and all liquids should be restricted during the afternoon.

Van der Bogert believes gastro-intestinal disturbances play an important part in the production of enuresis, and outlines his treatment accordingly. He goes into detail as to time, quantity, and quality of meals. Redway states that 90 per cent of enuresis is due to reflex irritation, and that some, if not all, are traceable to errors of refraction and can be cured by properly fitted glasses. He also believes that atropine cures enuresis by abolishing eyestrain.

Cold hydrotherapeutic measures help in the general strengthening of the nervous system, but are not to be used indiscriminately. Walker, Sundall, Carter, Cameron, Abst, Hale, Ash, Turner, Dunham, Zappert, Rietschel, and many others believe that the major treatment should be along psychotherapeutic lines, since enuresis is essentially a failure on the part of the higher centers to control and regulate reflex contraction of the bladder. This suggestive treatment can only be employed in older children and in children where there is no lack of mental development. There are various ways in which psychic influence may be employed. Gain the patient's confidence and co-operation, encourage him to believe that he will gain control, tell him that enuresis is a disease and is not shameful or discreditable, and impress upon him that the treatment to be used, whether electricity, injections—local, dietetic, or educational—will produce the desired results. The object is to assist normal development in the associative mechanism of micturition, thus tending to induce a conditional reflex.

Dunham applies suggestion by the presentation of a series of associative visual stimuli. He has printed on a card the following four sentences: (1) I am not going to wet the bed tonight. (2) I am going to wake up at midnight. (3) I shall get up and pass water. (4) I shall not wet the bed any more. The patient repeats these ten times, twice daily, and upon going to bed. The card is then placed under the child's pillow.

Walker employs suggestion during the waking

state, half asleep and half awake, by repeating to the child in simple expressions that the next time he wants to pass urine he will know it and wake up, get out of bed and empty his bladder. Suggestion under hypnotic influence has been employed in refractory cases with good results, but recent articles condemn it because of its unknown influence upon the child's mental development.

Dr. Frank Hamburger says of the various methods of treatment, "I can cure with any of them or without any of them." If he felt that he could not get into sypmathy with his patient he would not treat him, and if he failed once he rarely tried again. Turner has cured 75 per cent of his cases by making an impression upon them.

After the removal of the underlying cause, with its contributing factors, the habit of unconsciously emptying the bladder will usually remain and must be corrected. This is accomplished by placing the child on a so-called enuretic regime. The patient is placed under the best hygienic conditions and on a definite diet, regular meals, no between-meals, no fluids after 4 p. m., etc. Rest is an important item; limit the child's activities after 4 p. m., a mid-day sleeping-period, and in bed at 7 p. m., as it is important to combat the profound sleep. The child voids at definite intervals during the day, and just before going to bed. These intervals during the day are usually lengthened once a week, depending upon the severity of the case. Once during the forenoon and once during the afternoon have the patient, when voiding, stop and start the stream several times. This teaches him voluntary control of the bladder.

The best time to awaken the child at night to voluntarily empty his bladder is a few minutes before the time he habitually wets the bed, which occurs at approximately the same time each night. If this time is not known, he should empty his bladder at 10 p. m., 2 a. m., and 6 p. m. If the bed is found wet at 10 p. m., the child should be awakened one hour after going to bed, etc., the object being to anticipate the involuntary micturition by a voluntary emptying of the bladder. As the treatment progresses, the 2 a. m. awakening may be omitted. The patient should be awakened on the minute. Have him get out of bed, turn on the light, go to the toilet, and, after he is thoroughly awake, voluntarily empty his bladder.

The following conclusions are justifiable: (1) During infancy the micturition reflex is automatic and uninfluenced by the will. (2) Enuresis is the involuntary emptying of the bladder, and does not rouse consciousness to the occurrence of the act. (3) Enuresis may be simply the persistence of an infantile condition or habit due to the lack of the restraining influence of the higher centers upon the micturition center in the spinal cord. (4) Eliminate all anatomical defects, surgical conditions, and general diseases that might cause incontinence before making a diagnosis of enuresis. (5) Remove all irritative conditions, correct the diet, and restrict liquids, to aid in the establishment of a cure and to prevent a relapse. (6) Since enuresis is essentially a failure of the higher centers to control reflex bladder contraction, the major part of the treatment should be directed toward these higher centers. (7) The success of any method of treatment is due, for the most part, to its psychic effect. (8) After removing the underlying cause and its contributing factors, the habit of unconsciously emptying the bladder must be corrected.

In conclusion, I wish to express my appreciation to Dr. Arthur B. Cecil for helpful suggestions in compiling this article.

Pacific Mutual Building.

DISCUSSION

Miley B. Wesson, M. D. (Flood Building, San Francisco)—Dr. Gibbs' paper is a most interesting and painstaking study, and he demonstrates clearly that the literature of the etiology and cure of enuresis of early life presents an almost hopeless maze of theories, each of which lays stress upon some particular aspect of the subject. Incidentally, none is supported by conclusive scientific evidence. Enuresis is commonly due to a functional irritability of the nervous system, and the literature tends to stress the removal of the local sources of irritation and minimizes the importance of certain general measures. The fact is, the removal of the cause rarely cures except in cases of vesical calculus, because of the habit factor. The establishment of a proper general regime is most important, and particular attention must be paid to early hours, plenty of sleep, avoidance of alcohol, tea, coffee, and sugars, and the removal of all causes of unnatural excitement. Everything possible must be done to improve the general muscular and nervous tone of the individual. Punishments are harmful, rewards valuable, and confidence in the doctor most important.

The passage of sounds, and the giving of bad-tasting medicines are helpful, primarily, because of the mental impression. The only drug of any specific value is belladonna, as it diminishes reflex excitability. My old teacher, Dr. von Pirquet, was very partial to strychnine and atropin, and their routine use, along with afternoon and night restriction of fluids and intelligent systematic training, has proven eminently satisfactory in my hands.

Bed-wetting ceases between the seventh year and puberty, since the cerebral centers develop and are able to control the spinal centers, even during deep sleep. Hence, our efforts are merely to help Nature bring about this result a few years earlier. Dr. Gibbs has shown very clearly that the 117 articles published on this subject in the last decade have added little to our knowledge of the cause and treatment of enuresis.

Robert Lewis Richards (240 Stockton Street, San Francisco)—Dr. Gibbs has given us the most complete account of the physical mechanism of enuresis and various treatments advocated. It is only by assembling all the evidence and judicially weighing the facts concerned that any satisfactory conclusion can be reached. Most of the medical articles give a small sectional view of one man's experience and deductions, but do not review the whole evidence and all the efforts to solve the medical problem in hand. The judicial or legal point of view should be included in medical education so that medical evidence may be more fully presented and weighed. Consequently, such a finished article deserves especial consideration.

I am impressed that the underlying fact in enuresis is the mental fact of little or no responsibility until the brain structures are more complete and the relation of the personality or life pattern to enuresis is clear. "Children under two years are not expected to have full bladder control." By the same token, children at this stage have defective cerebral association or mind function, as shown by Fleshsig's and Brodman's studies of nerve fiber development and cortical architecture. Hence, one would expect not only defective functioning, but also a growing organism capable of more moulding and habit-shaping than a fully developed portion of the human organism. Certainly, the training and habits of bladder

control should be attempted before the stage of walking. With no training, this is left to chance and to rebellion against the discomfort of being wet. Besides, the emptying of the bladder has a pleasurable element, and I have frequently found the pleasurable sensation of "pseudo or early masturbation" associated with emptying the bladder at the same time.

The treatment in each instance mentioned claims nothing specific, but vaguely refers to a mental element, e. g., suggestion and mental impression. Painful impressions, the suggestion of strange impressive procedures, the system of rewards for success, have all been tried and lauded, but there is a strange medical reluctance to more than hints at a possible medical factor. The sick individual is lost sight of, in comparison with his spinal cord centers, sphincter muscles, prostate glands, and foreskin. Certainly, any physical defect has a bearing on the well-being of the individual and his self-control and ability to form proper habits. But it is wise not to deceive ourselves as to the methods of securing results and what we are really striving for. This gives a different point of view and prevents our expecting or promising immediate and complete results. Nocturnal enuresis, after eight years, notoriously accompanies nocturnal epilepsy, in which the convulsive seizure is missed and the wet bed discovered.

The bed-wetting of our military camps was noted to occur in persons with other psychopathic traits. The larger percentage of bed-wetting in that period, as compared with my prior ten years' experience in the regular army, strongly suggested that the stress of war in susceptible individuals had led to a reversion to infantile defects. Besides, the treatment in these cases was less successful in my experience. Hence, I am heartily in sympathy with Dr. Gibbs' attitude as to the mental factors involved in enuresis, and feel that he has kept this often-beclouded issue much clearer.

Clara E. Finney, M. D. (Black Building, Modesto, Calif.)—Dr. Gibbs' paper reminds one of the impractical attitude of many investigators toward enuresis as seen in every-day practice. We should not forget that enuresis is a serious domestic and social problem, rather than a medical one, to a large number of families in a community. True, it is presented to a physician for solution rather than to a sociologist, but few mothers would co-operate, either personally or financially, in the application in most of the methods of cure reviewed by Dr. Gibbs. The excellent point he makes is that, even though there may be underlying causes with contributing factors to be removed, the habit of unconsciously emptying the bladder remains to be corrected; and it is toward the breaking of this habit that the cures for enuresis should be aimed primarily. One has the impression that, of those children brought to the pediatrician, the large majority is suffering from the habit alone; though it was doubtless formed, primarily, from one or more of the many causes enumerated. Dr. Gibbs' paper seems valuable in that, after touching on the many factors, he outlines a practical, efficient regime, and one applicable to the majority of cases.

Asthma Due to Grain Rusts—During recent years, in parts of the northwestern states and Western Canada, rust fungi have attacked a considerable portion of the growing grain. Wheat, barley, oats, and rye in the maturing stage are hosts for special rusts. Wheat rust (Puccinia graminis) is the most prevalent. F. T. Cadham, Winnipeg (Journal A. M. A., July 5, 1924), has seen three patients suffering from asthma, in whom the exciting cause of the attack was a proximity to these rusts. The history of each case is similar: There was a short period of exposure to the infected grain, during which the person was evidently sensitized; then each one left the country or district for a year or more. Asthmatic attacks developed when the patient was once more exposed to rust-infected grain. Each case gave a positive cutaneous reaction to these fungi.

GOITER SURVEY IN UTAH

By JAMES WALLACE, M. D., Salt Lake City,
Epidemiologist for the State Board of Health

PURPOSE OF THE SURVEY

A statewide goiter survey was begun during the present year by the State Board of Health, the survey having been made possible through financial aid from the International Health Board, federal authorities, and the State of Utah. From observations, army draft reports and a number of partial surveys made by the State Board of Health, it was believed that Utah was one of the goitrous areas of the United States. Moreover, it had become known that goiter was one of the easiest diseases to prevent, both as to cost and as to facility of application of preventive measures. As a scientific procedure it was necessary, in as systematic and accurate a manner as possible, to find out just how prevalent goiter was in the state. The survey was necessary, too, not merely that statistics might be collected, but that where prophylaxis was begun it might be known how we started, and later where we ended. In addition to all this, the State Board of Health was convinced that the goiter problem was a public health problem and a matter of serious concern to the state. Their view has recently been expressed by Dr. F. A. Coller of Ann Arbor, when he states "that all goiters are potentially dangerous and most of them do, in fact, eventually produce not only symptoms, but also definite pathologic lesions." They hold that the seriousness of goiter is not to be judged by the amount of disability it causes the child or adolescent (for usually it causes none), but the possible end-results. The survey was, therefore, preliminary to instituting prophylactic treatment which, it is hoped, will within a generation greatly reduce, if not completely remove the goiter blotch from the fair countenance of the State of Utah.

EXTENT OF SURVEY

At the time of the closing of the schools for summer vacation, 69,256 pupils in the schools of the state had been examined, exclusive of the 1945 students at the University of Utah, examined by Dean Porter and associates of the university. The 69,256 pupils represent a school population of 88,108 or 64 per cent of the total school population of the state. The school enrollment is never quite equal to the school population, and an examiner at one visit can practically never get 100 per cent of the enrollment. With all these allowances, there was obtained nearly 80 per cent of the total school population in the areas surveyed.

The area covered included ten counties in which were sixteen school districts. In five of the counties the school district is co-extensive with the county; the other counties are divided into two or more school districts. The counties covered are Cache, Weber (Ogden City), Salt Lake, Utah, Tooele, Emery, Sanpete, San Juan, Grand and Garfield (incomplete). The area of these counties is over 34,000 square miles, or about two-thirds the area of either the state of Illinois or the state of Michigan. So far as the writer knows, Utah has at the present time the most extensive survey for goiter yet made in any state; and on account of the great

area covered, a great variety of conditions are represented. In Michigan, four counties have recently been surveyed, 31,612 pupils being examined. Prior to this, 26,215 pupils were examined in Grand Rapids. So far as known, there is no eastern and certainly no western state that has as extensive a survey as the State of Utah, and the end is not yet.

METHOD OF EXAMINATION

The method was to inspect the pupil in a good light, but inspection was not relied upon; the thyroid glands were palpated, and again palpated as the pupil swallowed. The examiner stood behind the pupil, the taller students being asked to sit, and were often palpated, both while sitting and standing. Where there was any suspicion of the presence of goiter causing symptoms, inquiry was made into the condition. In these examinations the co-operation of the local doctors was sought, and in some of the larger centers the local doctors made the majority of the examinations, but an effort had been made to standardize the diagnosis as much as possible that the findings by different examiners might be on a uniform basis and, therefore, comparable.

CLASSIFICATION

The common classifications into colloid, diffuse hypertrophy, adenomatous, and exophthalmic were used, but no serious attempt was made to differentiate colloid and diffuse hypertrophy. They were grouped together. As to size, besides the negative class there were four different groups for positives: (1) The question-mark group or pregoitrous group where the neck could not be pronounced negative, and yet the degree of enlargement was so slight that one would hesitate to say the individual had a goiter; (2) slight—any enlargement up to one inch; (3) moderate—an enlargement from one to two inches; (4) great—any enlargement over two inches.

FINDINGS

All pupils from the kindergarten up to the highest grades were offered the opportunity of examination. Of the 69,256 examined in the high and grade schools, 31 per cent of the boys and 54.3 per cent of the girls were found to fall into one of the four positive groups mentioned above; or 42.7 per cent of all students were found positive. If there be included the 1945 students examined at the University of Utah by Dean Porter and his associates, the total number becomes 71,201, with practically no change in the percentages of positives, for either the sexes or the totals, as the percentages found positive in the University were 31.2 per cent for males, 56.6 per cent for females, and 42.9 per cent for all examined. The 71,201 do not include over 3000 adults (a majority of them teachers), who were examined during the survey, but of whom no record was kept.

Of those found positive so far as tabulation is completed, it would seem that about 16 per cent belonged to the pregoitrous group; about 81 per cent to the slight; 2 per cent to the moderate, and less than 1 per cent to the great. (See diagrams 3 and 4.) In the highest age groups, a greater percentage of moderates and great enlargements was found. The number of moderates and great enlargements found in males, as compared with females, just about corresponded to the ratio of positives for the two sexes. The difference in incidence between boys and girls is not great in the lower age groups, being only about as 2:3, but in the higher age groups the difference is more marked, being usually about 1:3. In very intensive areas the prevalence among males is almost equal to that among females, but where the conditions which produce goiter are not well marked, there is a greater relative preponderance of females; the female seemingly being more susceptible to slight goiter producing conditions. Apparently, the tendency in the male is for the incidence to grow less after he passes the period of puberty. In the female, on the other hand, there is no such decrease after that period is passed.

Of the 69,256 high and grade pupils examined, the age grouping was as follows:

Age group	5-9	10-14	15-19	20 and over
	23,412	30,413	14,398	1003
	33.8%	43.9%	20.8%	1.5%

The percentage of positives for these different age groups was:

Males	25.9%	36.4%	28.3%	24%
Females	40.1%	59.9%	66%	65.5%

(See Diagram 1.)

These findings are high, but not as high as those of some other states. Four counties recently surveyed in Michigan show from 26 to 64.4 per cent positive, or an average of 47.2 for the four counties.

One might be inclined to ask whether the incidence in Utah is becoming greater or less. There are no definite statistics to indicate the prevalence of goiter in past years, but some old-timers are of the opinion that there is much more goiter now than formerly, and some attribute the increase to the decrease in the number of wells and the more general use of water from the hills, through the installation of public water systems.

Another question that naturally occurs to one is, in how many cases will these enlargements of the thyroid gland persist? This is another question for which we have no answer, based on an observation of a large number of cases through a period of years, but in a recent house-to-house survey of adults made for the State Board of Health by Dr. F. I. Jansen, in a portion of the town of Spanish Fork 17 per cent of the males and 42 per cent of the females were found to have goiters. If the sexes were equally distributed, that would mean that 29.5 per cent of the adult population have goiter. In a complete survey of all the school children in that town, only 31.5 per cent were found to be positive; so that if this small survey is any criterion, it would seem that the percentage of recessions is not great.

The state survey indicated that there is no racial immunity to goiter, as Indians, Japanese, Mexicans, and Chinese were found to have goiter as well as Europeans and Americans; but there is a certain type of person, usually inclined to be stout, stocky, and fat (what is sometimes called the herbivorous type as contrasted with the carnivorous), in whom goiter is less often found than in the thinner type.

According to school districts, the survey showed Emery County to have the greatest number of posi-

tives, the percentage being 83.5, while Granite District, in Salt Lake County, was the lowest, with a percentage of 26.5. (See Diagram 2.) Individual schools ran from nothing to 100 per cent. There was only one school (Bacchus, Granite District) that was entirely negative, but it could hardly be taken as an index, as there were only thirteen pupils in the school, and only one pupil had reached the age of 10 years. The next lowest were two schools in Nebo District—Benjamin and Lakeshore—schools of considerable size that went as low as 6 per cent for positives. These schools are in the center of a valley, a considerable distance from the hills, and get their water supply from deep wells. On the other hand, in other sections it was not uncommon to find 75 per cent of the girls in the high schools with an enlargement of the thyroid gland.

Several pupils in different districts were found to have definite toxic symptoms: for example, one pupil in Provo High School, one in the Alpine District, two in Tooele County, and one in Cache County, were definitely diagnosed as toxic, while many others, e. g., five in North Sanpete and four in Cache, were marked for observation as being possibly toxic. There were also a number of cretins or cretinoids found in the survey; for example, in Emery County four were discovered. In very few cases did any form of goiter appear to cause the pupil any disability either in study or sport, but we have learned to judge goiters, not by their handicapping effect in the adolescent, but by the possible serious later effects.

RURAL VS. URBAN COMMUNITIES

Approximately one-half of the pupils examined in the high and grade schools were in the cities of Salt Lake, Ogden, and Provo, the other half being in the country or smaller towns. The average percentage of positives for these cities was, roughly, 44 per cent, while for the rural portion the average was about 40 per cent. This does not correspond with the findings for Cadillac County, Michigan, as shown by a preliminary report from the Michigan State Board of Health. There the rates were higher in the country than in the town. In Utah, however, we find that generally the rural rates are lower where the water supply is local; that is, from shallow or deep wells, but where the supply comes from the hills the rural rate is higher than the city rate. There have been a few exceptions to this rule, but not many. In general, the nearer the district is to the hills the greater the incidence of goiter. Of course where the water is brought by pipe or stream from the hills, a community may be a long distance from the mountains and yet get the same supply as those who live on or hardby the foothills. The pupils in the school at Saltair (almost in the middle of Great Salt Lake) have their water hauled from Salt Lake City, which city gets its water from the hills. The average percentage of positives for Salt Lake City was 41.6, and for Saltair 42.3.

In the rural sections a much larger percentage of marked goiters (moderate or great enlargements) was found than in the urban.

If, as is now generally accepted, goiter is a deficiency disease due in the beginning to an insufficiency of iodine, this does not mean that additional agencies may not be factors in actually inducing goiter in individual cases. McCarrison says there is more goiter among the poor than among the rich. In intensive areas it seems that goiter is no respecter of persons, but well-to-do people are likely to travel more and have a greater variety in their water and food supply. Small rural communities are likely to be limited in both their water and food supply to purely local products. In remote parts of the country, too, medical service is usually not so readily available; also, in making comparisons between districts one has to consider the congenital aspect of goiter. All children are not born free and equal, as far as goiter is concerned. If they are the offspring of parents who have lived for some time in a goitrous area, they are likely to have started life with the handicap of a deficiency. In some schools over 50 per cent of the first grade pupils, only 6 or 7 years of age, were found to have enlarged thyroids. This could not be due to any physiological change such as takes place at puberty. It shows, too, the necessity for attending physicians to see that all pregnant women in a goitrous area have an adequate supply of iodine. In North Sanpete High School, 50 per cent of the positive cases were able to say definitely that their mothers, sisters or brothers were known to have goiters.

WATER ANALYSIS

Dr. J. F. McClendon, Professor of Physiological Chemistry at the State University of Minnesota, volunteered to analyze for iodine content samples of water from different parts of the state. Already several samples, evaporated according to directions, have been submitted to him, but as yet no report of his findings for Utah waters is available. In a recent number of the A. M. A. Journal (May 24, 1924), Dr. McClendon shows the relation that exists between iodine deficiency in food and drink and the incidence of goiter, and submits analyses of water samples from nearly thirty states, but Utah is not in the list. The work of McClendon parallels the work of Fellenberg in Switzerland, in 1923, who showed that in his country the percentage of iodine in the water in different localities was in inverse ratio to the prevalence of goiter.

INFORMATION

In connection with the survey an effort has been made, without unduly alarming anyone, to carry the facts regarding local conditions to the people, to give them information on goiter generally, to urge them to take suspected cases of goiter in adults to their physician for diagnosis and advice; and for children to provide prophylactic treatment for all negative or incipient cases, while they were urged to take to the family physician all toxic, adenomatous, and chronic marked cases of simple goiter.

PROPHYLAXIS

For prophylactic treatment in the schools, the State Board of Health has been urging the use of chocolate tablets containing 10 milligrams of iodine, one tablet to be taken once a week for the forty weeks of the school year. For school purposes, these forty tablets or a year's treatment can now be ob-

tained through the State Board of Health for the sum of 25 cents. Already prophylactic treatment has been begun in the schools of Tooele, Emery, Grand, Utah, and Sanpete counties, and a small beginning has been made in some other counties. The time for school-closing for summer vacation was so near when the survey was made in some of the school districts, that it was thought to be more practical to begin prophylactic treatment with the reopening of the schools.

On June 1 of this year, a state law in Michigan became effective whereby no salt is allowed to be sold in the state unless it contains a certain percentage of iodine. A similar law for the State of Utah has been urged for the past two years by Dr. T. B. Beatty, State Health Commissioner. In Sault Ste. Marie, Michigan, and in Rochester, New York, sodium iodide is being put into the public water supply. The method of administration is largely a local question. The main thing is to see that those who need iodine receive it, that it is available in a palatable and convenient form, and that it is either supplied at the public expense or at a very low cost to the individual.

The success of the survey has been very gratifying. The medical profession have given commendation and support to it, by participating in the examinations, by public address and by private conversation, the school authorities have welcomed it, the teachers have co-operated so as to make the survey easy, the press has given publicity to the progress of the work, and altogether the difficulties have been much less than we anticipated.

POINTS THAT MAY BE NOTED

1. The incidence of goiter varies greatly in different counties and in different localities in the county, though no place surveyed can be said to be goiter-free.

2. The average percentage of positives is 42.7 per cent.

3. The ratio of the sexes as to goiter is about two females to one male.

4. Recessions in the enlargement of the thyroid

UTAH STATE BOARD OF HEALTH
GOITER SURVEY
A Comparison of 16 School Districts

School District	Males			Females			Aver. Pct. Positive for District
	Positive	Negative	Per cent Positive	Positive	Negative	Per cent Positive	
Cache County	715	1,305	35.4	1,352	904	59.6	48.9
U. A. C., B. Y. U. and N. J. A.	80	261	23.4	285	181	61.1	45.2
Emery County	664	175	79 3	665	39	88.2	83.5
Grand County	80	52	60.6	95	48	66.4	63.6
Garfield County (incomplete)	106	160	39.8	171	57	75.0	56.9
Utah County							
Alpine	448	1,351	24.9	880	931	48.6	36.7
Nebo	498	1,769	21.9	978	1,243	44.0	32.9
Provo City	669	1,284	34.6	1,135	811	59.0	46.3
Salt Lake County							
Granite	439	2,175	16.7	926	1,600	36.6	26.5
Jordan	478	1,484	24.2	845	995	45.1	34.8
Murray Town	123	453	21.3	275	304	48.1	34.4
Salt Lake City	3,665	8,533	30.0	6,489	5,675	53.3	41.6
L. D. S. and Other Schools	126	593	17.5	631	556	53.1	39.7
San Juan County	134	130	50.8	177	57	75.6	62.4
Sanpete County							
North Sanpete	458	683	40.1	668	394	62.9	51.1
South Sanpete	334	782	29.4	660	487	57.5	43.9
Tooele County	285	540	34.5	450	352	56.1	45.2
Weber County							
Ogden Schools	1,315	1,827	41.8	2,126	1,221	63.5	53.0
Other Schools	40	112	26.3	142	124	53.4	43.5
Total	10,657	23,670	31.0	18,950	15,979	54.3	42.7
University of Utah	327	720	31.2	508	390	56.6	42.9
Grand Total	10,984	24,390	31.0	19,458	16,369	54.4	42.7

Total males examined.....35,374
Total females examined.....35,827
Total for both sexes.....71,201

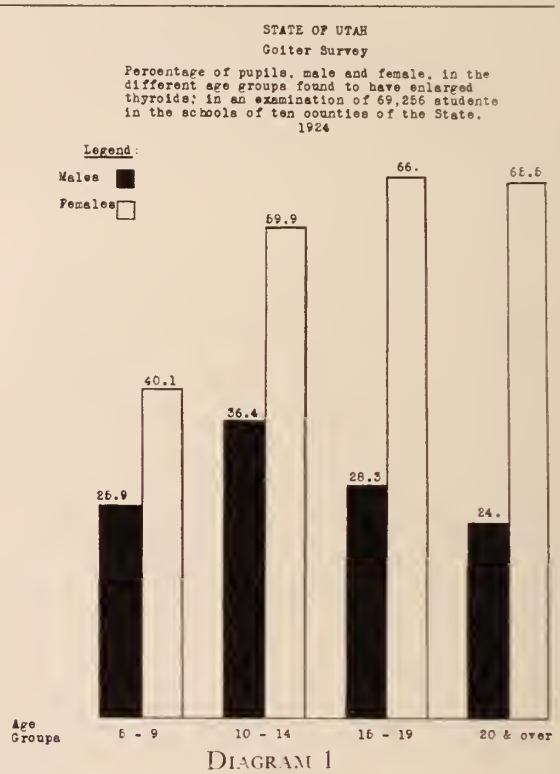

DIAGRAM 1

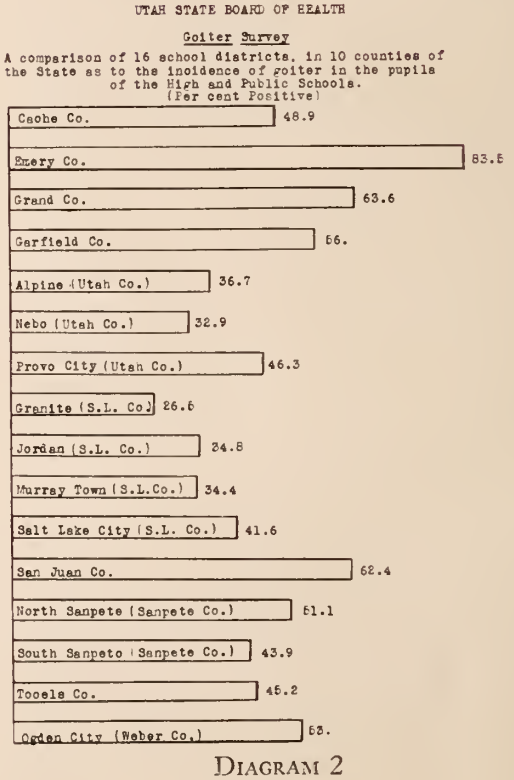

DIAGRAM 2

seem to occur more frequently in males than in females.

5. The percentage of goiters that naturally recede without treatment of any kind would seem to be small.

6. There is no racial immunity to goiter.

7. Communities getting their water supply from the hills generally show a higher incidence than those using well water.

8. Rural sections have a higher incidence than urban only when their water supply comes from the hills.

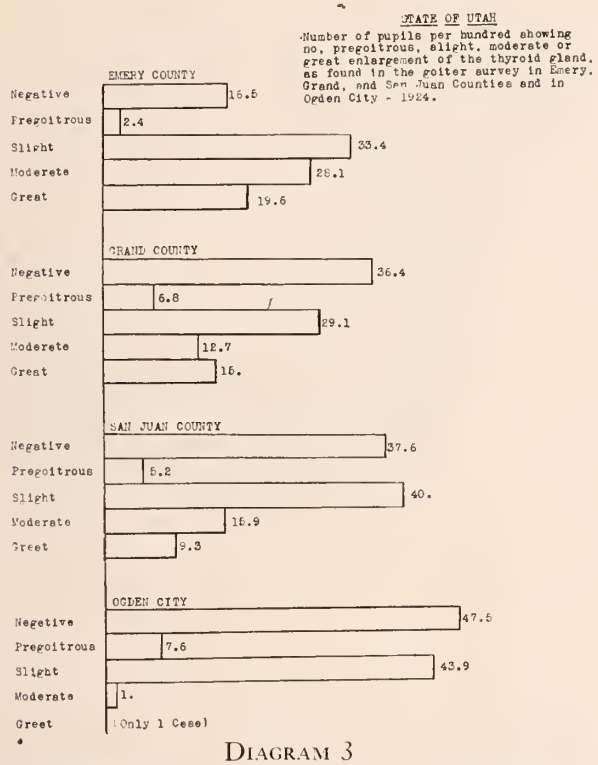

DIAGRAM 3

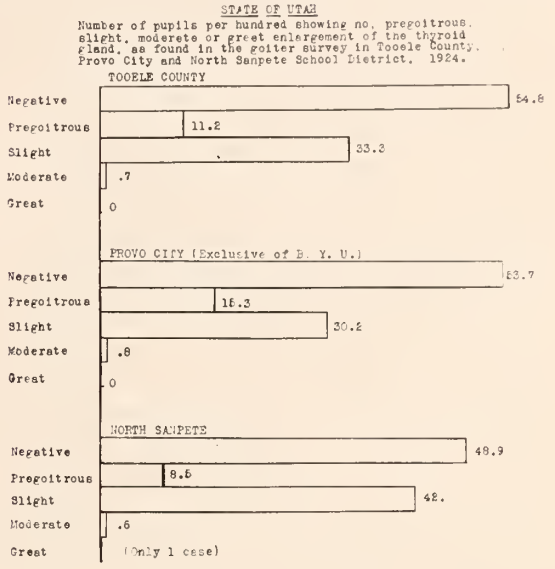

DIAGRAM 4

A CASE OF CONGENITAL SYNOSTOSIS OF RADIUS AND ULNA

By C. B. BENNETT, M. D., Berkeley
(From the University of California Infirmary)

The following case of congenital synostosis of the radius and ulna is presented because of its comparative rarity. Only about twelve cases have as yet been reported from the United States, although the condition is far commoner than this statement would imply. Doubtless one reason for this dearth of reports is that the deformity causes so little discomfort that many suffering from it never consult a physician. The deformity usually presents the following picture, which seems to be as definite a clinical entity as club-foot or any other well-known condition.

The synostosis usually occurs at the proximal ends of the forearm bones, which are united for a distance of three to six centimeters. The affected forearm is apt to be shorter than normal, and the hand is held in more or less pronation, which is often extreme. The distal end of the radius is usually heavier than normal, while that of the ulna is frequently the reverse. Obviously there is no movement between the two bones, although the joint with the humerus is usually unaffected. The condition is frequently bilateral. Occasionally synostoses of the distal ends of these bones have been reported from Europe, but are decidedly less common. As to the etiology, Bardeen and Lewis found that in an embryo of four and a half weeks, the radius and ulna were distinct below but fused above, and that only after several more weeks did the two bones become quite distinct and free. It would appear, therefore, that in this deformity we have the result of an arrest at a very early age of the normal process of separation of these bones. Just what causes this arrest is not known. Some have stated the condition to be hereditary, but in the majority of cases this does not seem to be true. In only one of the families reported in America was the hereditary tendency shown. In this case, reported by Feidt, the grandfather, mother and daughter, all had this deformity. On the other hand, Painter reported that his case was "the youngest of twelve children, all the others being well in every respect, and neither they nor the parents have, or have known of, any skeletal defect in their respective ancestors." Similar negative family histories were noted in most of the other cases.

Operative attempts to separate the bones and obtain normal movement have practically always failed, and a critical review of the very few cases in which success has been claimed makes one agree with Gibson that they do "not provoke enthusiastic encomiums." One reason for expecting an unsatisfactory result is that the supinator (brevis) is usually poorly developed, or absent altogether in these cases, while the pronator quadratus is abnormally short. This makes the probability of useful function very doubtful. A more serious obstacle is that the union between the two bones is usually so long that it has been practically impossible to prevent subsequent development of synostosis again after the bones have been

once separated. Probably the only surgical procedure which should be considered at all is, as pointed out by Gibson, whether or not a reduction of the more extreme degrees of pronation by a simple osteotomy followed by immobilization in a corrected position, would not result in a more useful arm. That this congenital abnormality produces astonishingly little disability is well shown by the fact that frequently the parents never noticed the condition until the child was several years old.

Among the cases reported from this country we find the following nationalities represented: One colored, one Italian, four Russions, and six whose nationalities were not stated; five females, three males, and four whose genders were not stated. The following case is especially interesting, as the patient has also another marked congenital defect—that of an undeveloped left eye. In the cases reported from the United States there have been no other congenital defects noted in any of the subjects, although these are not lacking in the European reports, and Evans in England has recently published a case of bilateral radio-ulnar synostosis associated with bilateral congenital dislocations of the hips.

CASE REPORT

W. S., a young man of 21 years, born in the United States, both parents born in the United States of English extraction, came on January 25, 1924, to see if it was possible to enable him to rotate his left forearm. The inability to turn the forearm was first noted by his parents when he was about 4 years old and has persisted ever since. He was a full-term child, the sixth in the family, and was delivered normally after an easy labor. There was no history of trauma at any time. His grandparents on both sides, both parents, his one brother and six sisters have never had any similar trouble.

Physical examination negative in every way except for an undeveloped and blind left eye from birth and the condition of the left forearm. The latter was one-quarter of an inch shorter than the right, was held in extreme pronation, and was one and one-quarter inches smaller than the right in circumference at the maximum point. Roentgenograms revealed the characteristic union of the proximal ends of the left radius and ulna for a distance of about two and one-quarter inches (six centimeters). The humero-ulnar joint movements were normal, no limitation of extension was present. The condition throughout was typical in every way. The other arm was normal, both clinically and radiographically. As the pronation in the affected side did not cause much inconvenience, the patient was advised against any operation at present.

1122 University Avenue.

DISCUSSION

Lionel D. Prince, M. D. (Flood Building, San Francisco)—It is my belief that congenital synostosis of the radius and ulna is far more prevalent than one might deduce from a perusal of the literature on this subject. As with other congenital deformities, all cases seen by physicians are not reported. Most of the discussion in literature is concerned with the possible methods of surgical interference for the relief of the condition. As a result of the synostosis between the two bones at their upper ends, all pronation and supination movements are lost and the forearm is usually fixed in the full pronated position.

Operations have been devised to permit the rotation of the forearm, which is usually accomplished through section or removal of a piece of the radius just distal to the synostosis. Some of the cases reported in the literature have shown a fair amount of improvement, but the prognosis insofar as improvement is concerned following operation is very doubtful. In adults, I believe, improvement through surgical interference is rather hopeless, owing to the fact that there usually exist combined congenital anomalies of the soft structures of the forearm so that even in the event that there is obtained some passive rotation of the forearm, the muscles which normally accomplished these movements actively are either not present or atrophied beyond any possible restitution. In children there is, of course, an opportunity to improve the condition, and in selected cases operative intervention might be considered.

Some years ago I had a very unfortunate experience

with a young Italian girl on whom I performed a section of the radius with the removal of about one-half inch of the shaft. The condition was bilateral and the forearms were fixed in full pronation. At the time of the operation following the removal of the section of the radius, the forearm could be easily supinated, and accordingly it was put in this position and retained by means of a plaster of paris cast. The hand became quite swollen and cyanotic, and in spite of the fact that the cast was removed as soon as the seriousness of the condition was noted, gangrene of that portion of the arm supplied by the radial artery resulted. The thumb and most of the radius sloughed away and an eschemic paralysis resulted in the remaining fingers. It is my belief that the tortion correction occluded the radial circulation, giving rise to the disastrous results. When the operation of the removal of the section of the radius is done it would probably be more advisable to accomplish the correction at a period subsequent to the operation, and then gradually by means of several plaster of paris dressings.

Doctor Bennett (closing)—The danger pointed out by Doctor Prince of the possibility of interfering with the blood supply when the deformed arm is supinated to what is ordinarily well within normal limits is most interesting and instructive. No reference has been made to the splendid article on these deformities by Davenport, Taylor, and Nelson, as it had not appeared when this paper was prepared.

POLIOMYELITIS, WITH ESPECIAL REFERENCE TO TREATMENT WITH ROSENOW'S SERUM *

By FRED B. CLARKE, M. D.,
Long Beach, Calif.

Acute poliomyelitis is an infectious disease occurring either in endemic or epidemic form, and since the time its epidemic nature was recognized and commented upon by observers in Sweden, in 1868, and in Norway in 1881, there have been numerous epidemics, worldwide in distribution, the most severe in the United States occurring in New York and the Middle West in 1907, and in New York and Massachusetts in 1916. During these years, less severe epidemics occurred in various states.

It is the general consensus of opinion that epidemics are becoming more frequent with more or less periodicity. In 1916, there were 13,000 cases in New York, with 3300 deaths, a mortality of approximately 25 per cent. The percentage of patients to population is of interest; there were 1.6 cases per thousand in New York City, and in the rural districts 2.6 per thousand patients, and the average age at the time of infection was 2.8 years.

Why a more or less periodicity should occur is not known. Flexner, Amoss, and Clark have carried a single strain of virus through monkeys for a period of four years. This strain was of low virulence in the beginning; rose to a maximum for three years, and then decreased suddenly to the initial level of virulence. The same transformation in virulence of the virus present in a community may be a factor due to children who are non-immunized. Considering the rarity of the disease in children under 1 year of age, and the relative immunity of children past the age of 5, it seems that we must be dealing with a problem in which the age is an important factor. Children under 1 year of age seem to have acquired an immunity from the mother which affords them a reasonable degree of protection.

There are many interesting things observed in the study of experimental poliomyelitis. Landsteiner and Popper, in 1909, were able to produce in monkeys a typical anterio-poliomyelitis by the intraperitoneal injection of an emulsion of the brain and cord of a fatal human case. The next year Flexner and Lewis succeeded in passing the virus through a series of monkeys, using the intracerebral route.

Flexner and Noguchi cultivated a minute organism from a .15 to .3 microns in diameter from the nervous tissue of human beings and monkeys with acute poliomyelitis, and upon injection of these cultures produced the disease in monkeys, and they believed that they had fulfilled the requirements for proving the specificity of this organism.

Rosenow has isolated an organism which he designates as a pleomorphic streptococcus from material collected from cases occurring in widely separate parts of the country, the organism being found in large numbers in the various lesions of the central nervous system, mesentery glands, tonsil and adenoid tissue. He and his co-workers have proved its absence in various organs showing no lesions, and on the other hand have used hundreds of animals in proving that this particular organism has an elective affinity for nervous tissue.

He also used hundreds of animals, in determining whether or not various bacteria from different sources had an elective affinity for a nervous tissue, and concluded that bacteria from various sources did not have.

In their studies they found the organisms described by them, as well as the ones described by Flexner, occurring in the same cases, as well as in the same organs, and from experimental data conclude that the globoid organism isolated by Flexner, and the pleomorphic streptococcus isolated by them, were one and the same; that the organism varies in size and shape, depending on the method used in cultivation. Under aerobic conditions, resembling the ordinary green producing streptococcus and under anaerobic conditions becoming smaller in size, filterable, and corresponding to the "globoid" organism of Flexner and Noguchi.

As to the route of infection, it is believed by the majority of observers that the virus passes directly by the perineural lymph spaces through the cribiform plate of the ethymoid directly to the pia arachnoid and adjacent nerve structures.

Flexner and Clark observing that after intranasal innoculation the olfactory lobe might contain the virus, while none was present in the medulla and cord, concluded that the virus passes directly into the nervous system and is not carried by means of the blood stream. On the other hand, considering the fact that the tonsil and adenoid tissue always contain the organism, one might really conclude that, in some cases at least, the infection is carried by the blood stream.

The virus rapidly disappears from the blood stream when injected, being found in the spleen and bone marrow, lymph glands, and posterior spinal nerve roots. The nasal washings contain the virus; it has been demonstrated in cases six days before the onset of symptoms, is usually not found after the tenth day of illness, but has been found in carriers months afterward.

Amoss, in an excellent article, describes the mechanisms of defense against this infection, as follows:

The virus, having been transferred to the nasal mucosa of a second human being, may lodge there, remain active (there are no indications that it multiplies) or it may be destroyed. That the latter may happen is shown by experiments on the neutralization of virus by nasal washing. In general, the nasal washings of healthy adults, but not children, neutralize the virus. This power of the nasal secretions to neutralize may, therefore, be regarded as the first line of defense of the human body against the entrance of the virus. If this were the only line of defense, infection or non-infection would be a relatively simple matter. However, there are other obstacles in the way of the virus, so that if the neutralizing power is absent from the nasal secretions, infection does not always result, but the person on whose nasal mucosa the virus falls becomes a carrier. Flexner, Clark, and Fraser have detected the virus of poliomyelitis in healthy adults who never showed

* Read before the Harbor Branch of the Los Angeles County Medical Society, November 18, 1923.

signs of infection, and the Swedish observers believe that carriers are quite common.

A third mechanism of a decisive nature is the presence of immune bodies in the serum, as shown by neutralization tests. Anderson and Frost noted the presence of immune bodies in the serum of 66 per cent of the persons who had been in close contact with poliomyelitis cases but who had not contracted the disease.

Whether or not the virus gains access directly from the mucous membrane of the nose to the nervous system, or is carried by the blood stream, it is believed that the protective mechanism of the choroid plexus must be broken down before the virus can cause widespread involvement of the nervous system, and I am forced to conclude, considering the onset and course of a series of cases, that the route of infection is not always the same.

Cases developing a paralysis, before any but the slightest evidence of systemic infection occurs, followed later by severe and intense systemic reaction, producing the so-called dromedary type of case, might well be considered as those in which the infection of the nervous system occurs before general systemic involvement. The following case illustrates this particular type. This little child of eighteen months had had no previous illness, and, while playing with the other children one evening, it was noticed that she limped on her left foot. The mother thought that there might be sand or a wrinkling of her stocking in her shoe to account for this, removed the shoe and found nothing, and did not attach any importance to it at the time. During the night, the child awakened, was rather fretful for a few minutes, apparently did not have any temperature, and in the morning, when she was taken out of the crib by her mother, she was unable to stand because of weakness in the left leg. At this time the rectal temperature was 99 degrees, pulse 90, leucocyte count, 8000; there was loss of all the deep reflexes of the left leg; there was no complaint of pain; there was no tenderness upon movement of the spine; there was no evidence of meningeal involvement upon flexing the chin upon the chest. Within thirty hours there was marked evidence of meningeal irritation, the body was in a typical opisthotonus, temperature 103 degrees, pulse 130, the spinal fluid showing seventy-six cells per ccm., positive globulin, reduced Fehlings, negative to culture. These stormy symptoms persisted for five days, being relieved, temporarily, by lumbar puncture. This child, after being ill for ten days, and her life having been despaired of, recovered, but with a paralysis of moderate severity from the tenth dorsal downward. This child was treated with Rosenow's serum, the first injection a few hours after paralysis was observed.

The above is typical of those cases which develop paralysis, with but little evidence of the presence of a general infection; there being no apparent reaction on the part of the defense mechanisms of the body ordinarily shown by increased temperature, rapid pulse, leucocytosis, etc. In such cases, involvement through the nasal mucosa might be considered as the most probable. Those cases in which the child is acutely ill for a number of days preceding involvement of the nervous system suggest that the portal of infection is through the tonsil or adenoid tissue, since it is well known that this tissue always harbors the organism which experimentally produces the disease. One might easily reach the conclusion that this mode of entrance is more common than most authors would lead us to believe.

The various clinical forms of the disease are dependent upon the localization and extent of the changes in the nervous system. The pia arachnoid invariably shows a round cell infiltration of varying degree, and the perivascular lymph spaces are infiltrated with the lymphoid cells. The cut section of the cord shows a decided swelling, with small hemorrhagic areas in the region of the anterior horn cells. The degree of destruction of the nerve cells varies from simple swelling to complete degeneration, probably due to a toxic feature in addition to the anemia, edema, and minute hemorrhages constantly present. The posterior spinal root ganglions are involved in the same process, and it is interesting to recall that these structures show changes in experimental animals in which the brain and cord are not involved. The entire lymph glandular system of the body shows hyperplasia, especially the mesenteric glands.

The clinical picture is so varied, depending upon the nervous tissues most involved, that, unless one constantly keeps the classification of Wickman in mind, he is apt to have difficulty in recognizing the clinical manifestations, because we are all influenced by our conception of the disease acquired by observation of a typical case.

Wickman, who has commented upon the abortive form, has described eight definite typical types, which are as follows: (1) Spinal poliomyelitis; (2) the ascending, or Landry's type; (3) the bulbar; (4) the cerebral; (5) ataxic; (6) polyneuritic; (7) meningitic; and (8) abortive. All of which may occur in any epidemic.

To have in mind a clear clinical picture of this disease, one must remember that we have an acute infection, characterized by a toxemia with its accompanying fever and malaise to which, in some instances, are added symptoms suggestive of respiratory and gastro-intestinal involvement. In those cases which go on to paralysis, there is a reaction on the part of the nervous system, depending upon the localization of the infection.

The recognition of the abortive type is of the most importance, from the standpoint both of the treatment of the patient and the protection of the community. It is this type, rather than the one with a frank paralysis, which, if unrecognized, spreads the infection. During epidemics, children who complain of vague symptoms should be isolated for one week, which is considered the incubation period.

Before paralysis has occurred, when only signs of toxemia are present, such as malaise, headache, fever of a moderate degree, with perhaps evidence of a mild respiratory or gastro-intestinal disturbance, one should consider the child carefully, as there are rather distinctive signs which might suggest something more than merely a reaction to teething, a

cold, or gastro-intestinal infection. He is more prostrated than usual, with a relatively slight fever, he voluntarily goes to bed and lies quietly, becomes peevish and irritable when disturbed, and many times assumes a position on his side with knees reflexed and head slightly retracted. There is something about the clinical picture out of the ordinary. If one places the child on its back, or flexes the leg on the thigh, in many cases pain is produced, due to extension of the spine. Spinal tenderness is one of the earliest evidences of involvement of the nervous system, and is often present before evidence of general cerebrospinal involvement occurs. One can readily appreciate the value of this symptom.

Another valuable diagnostic point is evidence of the meningeal involvement as shown by a positive Brudzinskis' sign elicited by flexing the chin on the chest. It is positive in the greater number of cases. A careful examination of the reflexes should be made, as any inequality or any deviation from normal has decided value.

Any suspicion of infantile paralysis should prompt lumbar puncture, as valuable information can be obtained. The fluid is clear, usually under moderate tension, with a cell count rarely exceeding 200. In the majority of cases the globulin is positive, Fehlings solution is reduced, no pellicule forms upon standing, and the colloidal gold reaction is in the syphilitic zone. This latter reaction is very important, as it has been shown by Ragan, in a series of cases, to be constantly present, affording a means of differentiating the fluid of poliomyelitis from that of meningitis and lethargic encephalitis. The fluid shows a reduction in ascending dilutions, starting in the reddish-blue area in 1 to 10, extending into the lilac and purple in 1 to 80, being expressed by 1, 1½, 2, 2, 2, 1, 0, 0, 0, 0. Such a reaction is quite distinctive from that found in meningitis, which is usually expressed as 0, 0, 0, 0, 1, 1, 2, 3, 3, 4, or tubucular meningitis, which is usually 0, 0, 1, 2, 3, 2, 2, 0, 0, 0. He has found that the length of the reaction corresponds clinically to the height of the activity, fading after three or four weeks, and that the reaction does not have any definite relationship to the number of cells or amount of globulin.

The spine symptoms and Brudzinski's sign were of value, in making a diagnosis of the following case:

Case No. 9—J. C. This boy was taken ill August 7, 1922, with very severe vomiting, complained of headache; his mother stated that he had a very high temperature. The next day he had a still higher temperature, wanted to be let alone, would not eat, and his mother said that it was very difficult to arouse him. Because of the vomiting, he was treated on this day by a doctor for some gastro-intestinal disturbance. The next day he had a great deal of pain upon flexing the chin upon the chest, was lying in bed with his knees drawn up, and any effort made to straighten out his legs caused a great deal of pain. The knee-jerk could not be elicited. At 10 a. m. on the 9th, which was three days after the onset of the illness, his temperature was 99.6 degrees, pulse 120, and respiration 36. Lumbar puncture showed a clear fluid under pressure, twenty-three cells per cm. m., and a positive globulin. At this time 30 cc. of Rosenow's serum were given intramuscularly. On August 10, he had improved so that he could talk and take some light nourishment; 20 cc. of serum again administered. The next day there was a little stiffness of the spine remaining, and there was a very weak response of the deep reflexes. He complained of seeing double when he looked upward, and he was very weak. This boy recovered within a few days with a residual sixth nerve involvement. There were no other neurological findings.

Intestinal disturbances, manifested by vomiting and diarrhoea which persists for a number of days, are not unusual, and the following short synopsis illustrates such a case:

This patient was 7 years of age. The symptoms began August 29, 1922, with severe vomiting and diarrhoea; these symptoms lasted for four days, he became much better, and was permitted to be up and dressed. Four days after the onset of the trouble it was noticed by the parents that he staggered and could not control his legs; this became rapidly worse, and in a few hours he was unable to walk. He showed improvement for two days, and then did not feel so well, and was admitted to the hospital September 3 at 2:30 p. m., showing at that time a marked weakness of the right leg with a loss of the k. j. and t. a., Brudzinski's sign was positive, and there was stiffness of the neck. His temperature was normal, his pulse was 90. He objected to being examined. Spinal puncture was done, eighteen cells per c. cm., globulin plus, 14 cc. of Rosenow's serum were administered intramuscularly, and by the next day he was so much improved that he voluntarily flexed his chin upon his chest. Within two weeks the power of his legs was better, and within a few months the child had been restored to normal.

The bulbar type is ordinarily fatal, and the following case illustrates a rather typical case of this type:

Case No. 2—S. T., male, age 5, had been in contact with an active case six days before. On August 7, 1922, at 9 p. m., his temperature was 100.5 degrees, rectal; there was no complaint. The following day his temperature and general condition were the same. The patient was seen at 10 a. m.; there was slight tenderness of the muscles of the neck; loss of the knee reflexes; no fever. At this time, 15 cc. Rosenow's serum were administered intramuscularly. At 2 p. m. his temperature was 100 degrees R., at 6 p. m. 100 degrees, and at this time an aphonia had developed so he could not make himself understood. Spinal fluid was negative as far as cell counts was concerned, with a positive globulin; his respiration was 30, he vomited frequently, with marked accumulation of mucus in the throat and larynx, which caused him to gag very often. At 10 p. m. his temperature was 101 degrees R., his respiration 36, pulse 112, there was decided rigidity of the neck, he did not complain of headache, he could not speak, and had difficulty in swallowing; 15 cc. Rosenow's serum were again administered. On August 9, he became gradually worse, the temperature was 104 degrees, there were twitching of the muscles all over the body and slight convulsive movements, 20 cc. of Rosenow's serum again administered. He became rapidly worse and died on August 10 at 1:30 p. m., two and a half days after the onset.

The ataxic type may present some diagnostic difficulties.

Case No. 24—J. A., male, age 9. He complained of not feeling well. His mother thought he was bilious and gave him a cathartic. The next morning he had difficulty in dressing himself, the mother chiding him for being so clumsy in using his arms, for he couldn't lace his shoes. She attributed this to the fact that he was probably sleepy, and after dressing him, she helped him to the table, and after preparing his food for him she observed that he could not find his mouth with his fork. She then decided that he was ill, and it was found that he had marked involvement of the

right sixth and seventh nerve, partial involvement of the right eleventh and twelfth. At this time his temperature was 99 degrees, he walked with legs adducted to steady himself, and complained of seeing double. There was marked adiadochocinesis and asynergy. It was impossible for him to hold his head erect, the reflexes of the lower extremities were a trifle active, with a decided Babinski and ankle clonus on the left and none on the right. He did not complain of pain, headaches, nor did he vomit, nor was there any mental change. When he came under my observation two weeks later, spinal puncture showed a normal fluid. Examination of the boy three months after the onset of symptoms showed marked improvement in the involvement of the cranial nerve, he could hold his head erect, and there was nothing noticeable in the use of his legs, but the reflexes of the lower extremities were slightly increased.

The ascending type is of interest, and is ordinarily fatal. The progression of the symptoms is well illustrated by the following:

Case No. 17—Male, J. H., age 15. On September 5, 1922, he developed a severe headache, without temperature. On September 6, his headache was treated by a chiropractor, and he was permitted to go to school as usual. On the morning of the 7th, upon getting out of bed, it was found that his left leg was so weak that he could not use it, and he complained of some stiffness in his neck. At 8:30 of this day his temperature was 101 degrees, he showed a marked stiffness of the neck, and a marked weakness of his left leg (most marked below the knee), the k. j. were lost, the t. a. were normal. Forty cc. of Rosenow's serum were administered. On September 9, there was some weakness of his left shoulder, and slight ataxia upon movement of his arm; 40 cc. of Rosenow's serum were administered. Within a few days the acuteness of his illness subsided, leaving him with a well-defined weakness of his left leg.

Rosenow has shown that the serum of horses immunized with aerobic cultures of the pleomorphic streptococcus from both poliomyelitis in man and experimental poliomyelitis in monkeys will develop specific antibodies, agglutins, and complement deviating properties. He has utilized this fact in the production of a serum which, unquestionably, is of value in the treatment of these cases. During the epidemic of 1916, in Yellowstone County, Montana, I observed twenty-four cases, eighteen of which were treated with this serum. In this series of cases there was one death. The number of cases recovering with paralysis was eight, or 47 per cent, and the number of cases recovering without paralysis was 9, or 52 per cent. Of the eight cases paralyzed, five were moderately severe, and three were very mild.

When one considers that in various epidemics the general mortality rate is 25 per cent, but in this series only one death occurred, he must conclude either that the administration of Rosenow's serum was of value, or that the disease was unusually mild. However, during the same year in the same state, the State Epidemologist, in tabulating cases, reported a death rate of 40 per cent in those cases with paralysis in which Rosenow's serum was not used.

The dose of serum is, roughly speaking, 5 cc. to 10 cc. for each 5 to 10 years of age, depending upon the urgency of symptoms, and it should be repeated in twelve, eighteen, or twenty-four hours, depending upon the urgency of the symptoms, and if there is no fall in temperature within twelve hours after the first injection. Rosenow formerly advised intravenous injection in conjunction with intramuscular injection, but now his advice is that the serum be given intramuscularly.

Generally speaking, one might look for a decided improvement within eighteen hours following the injection of serum, though it usually requires two to three injections before the temperature is reduced to normal. If a child has had asthma or horse serum previously, one should determine by minute injections if there is any degree of hypersensitiveness present. I have never seen any immediate reaction resulting from its use, but in about 50 per cent of cases, serum sickness will develop in eight or nine days, is often severe, and ordinarily can be relieved promptly by the injection of adrenalin chloride.

Rosenow has treated a series of patients with this serum. Of 60 treated in the pre-paralytic stage, all completely recovered without residual paralysis. In a second group of 61, with slight paralysis at the time of treatment, all but one recovered completely. In a third group showing advanced paralysis, 18 out of 123 died, 30 had residual paralysis, 61 recovered completely, and in 14 the late results were not known. In the 259 cases reported by Rosenow, the mortality rate was 7.3 per cent, which is a favorable comparison with the usual death rate of from 22 to 27 per cent.

A recent article by Aycock and Amoss, utilizing the observations of Weed and co-workers that the intravenous injection of hypertonic sodium chloride solution in normal animals caused a reduction in the volume of brain and cord, with a marked reduction of cerebrospinal fluid pressure and an aspiration of fluid from subarachnoid spaces into the perivascular spaces of the brain and cord, have recently reported a case in which this fact was utilized in conjunction with the giving of convalescent serum, with apparently excellent results. Any method which facilitates the passing of serum from the blood stream through the chloride plexus into the subdural spaces certainly might well be considered of value in the treatment of this disease.

GENERAL MANAGEMENT

In the acute stage, in addition to the serum treatment, everything possible must be done for the child to prevent restlessness and irritability. The child should be at complete rest until all pain has disappeared, and every precaution taken to prevent muscular contractions. I am convinced that the only way to place the paralyzed muscles at absolute rest is by the use of the cast. Every child following its acute illness should be placed in the care of a competent orthopedic surgeon.

In every case, numerous questions are always asked. Will my child die? Will my child have paralysis? Will the paralysis be marked? Will it recover from the paralysis, and will there be any shortening of the leg? It is very difficult to answer the first question within three or four days, inasmuch as the mortality rate in certain epidemics has been 27 per cent. One must necessarily be rather cautious in making a positive statement. As to whether or not the paralysis will be marked cannot be determined in an individual case until a sufficient time has elapsed to permit one to judge. As

to whether the child will recover from its paralysis depends entirely upon the degree of loss of function, but as we know that every child who receives intelligent treatment following paralysis will show a great deal of improvement during the following year. As to whether or not there will be shortening of the leg, one might conclude, after reading the observations of Nathan, that unless the gastrocnemius is involved, the shortening of the limb will not occur. He has found that in seventy cases, five years after the onset of the paralysis, all children with shortening had gastrocnemius involvement alone or in association with the tibialiposticus.

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DISCUSSION

Cleon C. Mason, M. D. (219 East Tenth Street, Long Beach, Calif.)—It is with great pleasure that I make these few remarks on Dr. Clarke's paper. I was present when it was originally read, and can testify as to its reception.

As Dr. Clarke has pointed out, the first essential in the handling of the disease is a diagnosis. In the presence of an epidemic this is comparatively easy, but when isolated cases spring up, often out of season, and manifesting rather bizarre symptoms, it becomes almost impossible to arrive at a correct diagnosis until paralysis sets in. Two very valuable points in the early diagnosis were brought out; both I have found of the greatest value. First, the child seems much sicker than the physical findings would warrant, and second, the presence of a positive Brudzinski sign. This last, in the cases I have seen, is most constantly present, and usually absent in other acute meningeal conditions. A third, quite constant finding is a persistent diarrhoea in the presence of an acute gastro-intestinal upset. Certainly, finding all three would be strong evidence in favor of poliomyelitis.

I feel it is still too early to draw any definite conclusions regarding the value of Rosenow's serum. There is considerable evidence, which seems to indicate that the pleomorphic streptococci described by Flexner, Amoss, Noguchi, Rosenow, etc., are not primarily the cause of the disease, but are secondary invaders; especially the work of Bull seems to sustain this view. This should in nowise detract from the work now in progress. Dr. Clarke's figures are very convincing, especially when one bears in mind that, where not used, the mortality rate was close to that of the 1916 epidemic. Certainly, the serum should be given a thorough trial with carefully controlled cases.

Ellis Jones, M. D. (Medical Office Building, Los Angeles)—Dr. Clarke has most admirably covered the subject of poliomyelitis from the standpoint of the internist. The treatment of the acute phase, as he has indicated, should consist of rest and absence of irritation and the avoidance of meddlesome therapeutics.

Fixation of the neck, trunk, and limbs in a well-padded plaster of paris bed, is desirable in the most acute cases. There is no evidence that drugs are of any use, and nothing is to be expected from counter-irritation, electricity, heat, or hot or cold applications. Hexamethylenamin may delay infection in monkeys, but is no use after actual infection has occurred.

During the acute stage, immersion in a warm bath is agreeable; massage and muscular exercise during the acute process is not good physiology, since it irritates peripheral ends of nerves connected with hemorrhagic nerve centers. Rest is imperative to enable the damaged cord to repair without interference, and rest to the muscles is equally imperative to prevent stretching of paralyzed or paretic muscle groups and contractures of the non-paralyzed muscles.

It is extremely trying to the parents, and even to the experienced surgeon, to apparently do nothing else but restrict motion and prevent contractures during the stage of tenderness, but surgical impatience during this stage is disastrous.

It is routine with us to employ plaster fixation as soon as the diagnosis is established, in order to prevent deformity and muscle-stretching. Flexion deformities of the knees, of the hips, drop-foot, adduction contractures at the shoulder and lateral curvature of the spine are most efficiently prevented by the early employment of adequate plaster fixation.

The convalescent phase begins with the disappearance of tenderness, and during this period muscle-training is begun. It is not sufficient to delegate the re-education of damaged muscles to a nurse or an untrained parent. Muscle-training requires the technique of an expert and constant orthopaedic supervision. Fatigue and muscle-stretching will convert a partial paralysis into a total paralysis, and the disregard of proper muscular balance will perpetuate a lateral curvature.

Ambulatory activity is made possible by carefully fitted braces. With the use of apparatus, almost every paralytic can be made to walk. Orthopaedic surgery enables most of our patients to eventually discard all forms of braces.

If early treatment is adequate, deformities will not occur, and much of the surgery of the orthopaedic surgeon be made unnecessary.

Philip H. Pierson, M. D. (Physicians Building, San Francisco)—This paper has been of considerable interest to me, in that it has given a comprehensive view of the diagnosis, prognosis, and treatment of a disease which generally is seen by a pediatrician, neurologist, or orthopedic surgeon, but which should be at least recognized by the general clinician. It is strikingly evident what a paucity of pathognomonic signs there are in many of the groups, and how the symptoms present might be construed as due to an irritable disposition on the part of the child. The value of a careful routine examination in all such children is rewarded by an early correct diagnosis, the most significant signs being the positive Brudzinski and the diminished or absent knee-jerks.

The treatment by Rosenow's serum has met with sufficiently satisfactory results to warrant its more general use; but it is essential that those using it record the effects produced by the amount of serum used. It seems that a larger dose applied early would be more beneficial. Small doses of diphtheria antitoxin were originally used, but later much larger amounts produced the desired neutralizing effect, and if a superfluous amount was used it did no harm.

Dr. Clarke is to be congratulated on the clear presentation of this subject and the success he has encountered.

Heredity and Hypertension—James P. O'Hare, William G. Walker, and M. C. Vickers, Boston (Journal A. M. A., July 5, 1924), analyzed the family histories of 300 unselected cases of permanent hypertension. In 204, or 68 per cent of this group, there was a definite history of apoplexy, heart disease, nephritis, arteriosclerosis or diabetes in one or more members of the patient's family. The number of relatives with vascular disease averaged 2.5 per patient, with the minimum one and the maximum nine. The large bulk of the relatives that had vascular disease, had heart, cerebral or kidney disease. The authors feel that these cases demonstrate rather conclusively that a family history of heart, kidney, cerebral disease, etc., is almost twice as common in a patient with hypertension as in the ordinary patient who has no increased blood pressure. Nature very frequently sounds a warning as early as the second decade in life of the possible development of hypertensive disease in the fourth or fifth decade. Such symptoms include frequent epistaxis, abnormal flowing at menstruation, migraine, cold, sweaty and cyanotic hands, flushing, blushing, extreme sensitiveness, a high-strung and nervous temperament, etc.

INFLUENCE OF MEDICAL WORK IN OBSTETRICS *

By ARMSTRONG TAYLOR, M. D., San Francisco

SUMMARY

Prenatal care of the mother.

Influence of social service in obstetrics.

Establishment in every community of a prenatal hygienic service.

Duties of a medical social service in relation to obstetrics.

More attention given to the teaching of obstetrics in our medical schools.

Maternal mortality of childbirth.

If the report made in the recent survey of the hospitals and health agencies is correct, namely, that no other large city shows as large a proportion of all maternity cases cared for in hospitals as in the city of San Francisco, and at the same time reports a comparatively large maternal death rate, we would naturally conclude that the present prenatal care is not given the attention it should be given by those interested in obstetrics.

In the clinics of the various hospitals, the prenatal work, considering the inadequate funds and facilities to carry on the work, is well done; and the prenatal care of the patient by obstetricians has been markedly improved. However, mothers delivered by the general practitioner in many cases receive very little prenatal care. This is not entirely the fault of the physician, but due to ignorance and prejudice relative to education in prenatal training on the part of the mother, this patient usually coming to the physician at the eleventh hour for delivery.

A great deal of time and patience will be required to accomplish much in education and prenatal care of the patients. Eventually, the medical social service, with adequate funds and the necessary facilities, will be the outstanding agency to bring the prenatal care of the mother to a position which will give her the care which she is entitled to and which she has the right to demand.

So much has been written in recent years on prenatal care that it would seem that there is little to be presented on the subject; however, the fact that it has been so continuously discussed by the profession and so much effort put forth by the various clinics and the medical social service workers to prepare the expectant mother for the oncoming labor, proves conclusively that the pregnant mother is not receiving the care and attention generally that is her just due.

No subject has received as little consideration from the public and medical profession as the prenatal care of the mother.

Statistics in the United States, although we must admit that the registration of births is incomplete, places the maternal mortality at 10,000 annually; with complete statistics it would probably reach the astounding figures of 15,000 annually.

To what can this large mortality be ascribed?

To the inefficient obstetrical training of physicians—many beginning the practice of medicine with an obstetrical training sufficient only to care for a normal case—is in part responsible for loss of life. But on the other hand, the ignorance and prejudice of the pregnant mother, the entire absence of any knowledge of asepsis on the part of many midwives, many of whom practice without a license, has much to due with maternal mortality.

The erroneous belief carried down through the ages that pregnancy and labor are normal, physiologic conditions, may be the reason for the statement that 90 per cent of pregnant mothers do not receive prenatal care, and only about 10 per cent of all births are conducted by the obstetric specialist.

Since the advent of asepsis, many mothers have been saved from puerperal fever and its consequences. So will adequate prenatal care prevent eclampsia, toxemias of pregnancy, and will relieve many mothers of that mental depression fostered by depressing tales of sorrow and suffering that is frequently told her by gossiping friends.

It is very difficult to interest expectant mothers, particularly among multipara in prenatal care. Education and persistence on the part of the nurse and the obstetrician will in time overcome this prejudice. With primipara, it is a less difficult task; they appreciate the attention given them—in fact, demand it. If the blood pressure is not taken regularly, frequent urine examinations made, the various questions answered, and her fits of depression allayed by advice, you may have occasion to wonder why you are not called at time of delivery.

Many physicians consider it more important to understand the application of forceps or the technique of a Caesarian section than to acquaint themselves with prenatal hygiene.

Through better obstetrical training in our medical schools, more prenatal clinics, more prenatal training in the home, with a follow-up service after delivery, giving the mother the care and advice necessary for her child and herself; only by such concerted action on the part of the various clinics and the social medical service may we hope to check the great loss of life incident to the reproduction of the race.

In the better conducted maternities, and particularly in the private practice of the obstetrician, there has been a marked decrease in the mortality of childbirth. In such institutions today, rarely do we hear of puerperal sepsis or eclampsia.

If the prenatal care given these patients by the obstetrician and our clinics—work which could not be conducted without the aid of the medical school service, which visits patients who are unable to come to the clinics—reduces markedly the maternal mortality, then why, by the concerted action of those interested in obstetrics, can not the present death rate due to childbirth be reduced to a standard equal to that of our well-conducted maternities

There is no denying the fact that a great deal of progress has been made in the past five years in prenatal care; but the field is large and much work needs to be done. It would seem to me that the obstetrician should be the leader in this movement.

In every community, there should be a prenatal

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hygiene service under the leadership of obstetricians; but the great service to these mothers must be done by the medical social service, with the co-operation of the various health centers.

Prenatal care is fundamentally a matter of education; this education must be imparted to the expectant mothers by the obstetrician and the social medical service, which should be well equipped with nurses, who will visit the homes and give the mother the prenatal and post-natal care which it is her right to demand.

There must be more attention given to the teaching of obstetrics in our medical schools. A study of many of the curriculums in our medical schools reveals the fact that no branch of medical training is receiving as little attention as that of obstetrics.

It is a severe reflection upon obstetrics when we consider the maternal mortality annually in the United States, and that 40 per cent of the infant mortality occurs during the first month of life. With more efficient prenatal and post-natal care, this tremendous loss of life can be materially reduced.

A nationwide campaign in prenatal and post-natal care will not only reduce the maternal and infant mortality, but will be the first and most important step in our child welfare work.

The influence of the social medical service in this work will be of the utmost importance, and the entire responsibility in perfecting the work rests in the hands of the obstetrician and the social medical service.

135 Stockton Street.

DISCUSSION

L. A. Emge (San Francisco)—Dr. Taylor's paper is very interesting and stimulating. I feel that, while it expresses the general consensus of opinion in regard to prenatal care, it does not offer a solution of the great problem that concerns the influence of medical social work in obstetrics. This type of work, as far as it affects the clinics, is well organized and little needs to be said about its value.

Nevertheless, only 10 per cent of all women are confined by clinics and trained obstetricians. Ninety per cent fall upon the shoulders of the general practitioner, who usually is overburdened with work and often lacks laboratory facilities, or who does not see his patient until she is well in labor.

It is here that the need for medical social work is greatest, and the need will increase as more work is thrown on the general practitioner, which ultimately must come because the continually rising hospital expense makes it more and more prohibitive for patients to be confined in an institution.

There must come a time when a visiting social service workers' association can take over the social and prenatal work of the general practitioner. The impulse for the establishment of such an agency must naturally come from the social workers. It would be perfectly feasible for such workers to take over the prenatal and social interests for a group of general practitioners without interfering to any degree with the practice of these physicians. The expense would be negligible and the value derived from such a service would be incalculable.

Such a move would at once open a vast field for social workers, who, when organized, could overlap their districts, if necessary, or exchange calls where solitary patients would fall in outlying districts covered by other workers.

I repeat that the proposal is feasible, but that it must be offered to the physicians by the social workers themselves.

Dr. Taylor (closing)—Dr. Emge, in suggesting the formation of an association to do the social and prenatal work of the general practitioner, has started a subject that will result in much controversy.

Such an association would work well for clinic patients, but I fear that such a plan would not be feasible for the private patients of the general practitioner. At the present time, the prenatal care of the patients in the various clinics is excellent.

It would seem to me that no one should engage in the practice of obstetrics unless he can devote a great part of his time to prenatal work. In most cases the prenatal care of the mother should be considered of more importance than the delivery of the child.

I agree with Dr. Emge that the didactic work in obstetrics in many schools is sufficient, but the practical application of obstetrics is lacking.

Many of our large clinics, having many patients in attendance, could be used for the practical teaching of obstetrics, but in many cases the available material is not used.

SOME OCULAR MANIFESTATIONS OF DISEASE PROCESSES *

By ALFRED GUMBINER, M. D., Los Angeles

The eye is said to be the mirror of the soul, which, medically interpreted, means that it acts as the medium of expression for the higher cerebral centers. Truly can it be said that the eyes, too, are the milestones of the body's span of life, for they carry, externally, that infallible sign of early decay, the *arcus senilis*, and, internally, the lenticular changes of presbyopia.

Both from an anatomical and biological standpoint, we must consider the eye as being essentially a neurologic organ. Its most important membrane, the retina, is a continuation of the optic nerve. The optic nerve and tracts are continuations of the cerebrum, and are covered by the cerebral membranes—pia, arachnoid, and dura. Between the membranes are lymph spaces such as are present in the brain. Thus is explained the involvement of the optic nerves in cerebral lesions with pressure and exudation. The eyeball is also plentifully supplied with nerve-endings, motor nerves from the base of the brain, sensory nerves from the gasserian ganglion, and sympathetic fibers from the spinal cord. It is very patent, therefore, that the eye, and particularly the pupils and extra ocular muscles, may be specially involved in diseases affecting the central nervous system and spinal cord. I will again refer to this later.

The eye may harbor the most baleful of ocular diseases and yet will exhibit less frequently than many other bodily organs the three cardinal symptoms of inflammation—dolor, rubor, and choler. This is explained by the frequency of an insidious onset in many ocular diseases. The first and only symptom in a majority of these cases to attract attention to the eye is failing vision, and this symptom, unfortunately, is often overlooked or underestimated. To cite an illustrative case: A man, 40 years of age, visited me in the interests of his own business, which was to sell insurance. In the course of conversation he laughingly mentioned that he might at some time consult an oculist professionally; he thought his eyes bothered him some. A third party present at the time proposed that he do

* Read before the clinical staff meeting of the Kaspare Cohen Hospital, Los Angeles, Calif.

it then. Examination elicited the following: Vision in the right eye reduced to light-perception; vision, left eye, twenty-fortieths. Fundus examination revealed a marked optic atrophy in the right eye, and a progressing atrophy in the left. Except for an appearance of being underweight, this man went about his affairs in apparent good health. He was married, the brother-in-law of a physician, and a man who, from the nature of his calling, was brought into constant contact with physicians; yet he was left to go on toward blindness over a period of years. The subsequent history of the case was short, but sad. A blood Wassermann gave a positive reaction. He was treated, but the shock of the discovery of his condition was so overwhelming that he rapidly developed symptoms of *tabes dorsalis,* and died within six months.

The United States statistics for 1923 show that there are 45,000 totally blind in the country, and it is estimated that thousands more are on the road to blindness.

Industrial commissions and the heads of large private industries here and in England have now awakened to the fact that employes should be as routinely examined for evidence of defective eyesight as is practiced on the young in the public schools. The economic loss due to time lost, owing to uncorrected eyestrain and its attendant neuroses, they found to be enormous.

Almost any of the body organs may directly or indirectly affect the ocular apparatus, but seldom does a primary affection of the eye, except in malignancy, react on its companion organs. The damage in ocular disease is more an economic one.

One of the most deplorable obstacles to ocular hygiene and eyesight conservation is the vanity of girls and women, and some men, who persistently refuse to wear glasses because they will "spoil their looks." I have seen females reach the borderline of almost total blindness because of this foolish prejudice, and let me add that this prejudice is greater the higher the social grade of the patient.

There are many signs which denote ocular trouble, and are easily recognized if looked for. Children who hold their books too close to the eyes probably have latent myopia—a progressive condition if unchecked. Many persons narrow their palprebal fissures on both near and distant vision, which is but an effort to overcome an existing astigmatism. Certain postures of the head, such as a lateral rotation to one side, an inclination toward one shoulder, is indicative of possible muscle imbalance. It is an unconscious effort on the part of the patient to render his visual axes parallel, and so overcome an existing diplopia.

It is in childhood that the greatest oversight is necessary, for many children are born with hereditary stigmata—such as a neurotic temperament, a facial asymmetry, an existing astigmatism, which only require the proper exciting cause, such as invariably comes with the onset of school-life and study, to bring about permanent ocular trouble.

Children are often unjustly blamed for backwardness at school, lack of concentration in their home-studies, when the real cause probably is a visual defect that burdens them with a train of reflex ocular neuroses. Sometimes it is due to the presence of a fine nebular opacity over the pupils—the result of a tiny ulcer found in children with disorders of malnutrition, hereditary syphilis, infantile tuberculosis, or as a complication of chickenpox or measles.

Quite often we see people, especially those of middle age, who have a peculiar stare in their eyes. We pass it by with the thought that it is due to a type of facial contour. Yet, underlying it, there may be an exopthalmos, an orbital tumor, the widely dilated pupil of high myopia, or a single widely dilated pupil due to nuclear disease, disease of the retina, optic atrophy, chronic glaucoma, or detachment of the retina.

Another symptom often overlooked, and which the patient describes as "seeing a black spot" before his eyes, may be significant of a positive scotoma existing in the patient's field of vision, and may be the first and only sign of a severe retinal or choroidal disease, or a rupture of a retinal artery, or brain pressure from some cause.

Bagley, of Baltimore, recently described the case of a man of 50 who casually complained of not seeing to his right. He was in apparent good health otherwise. He placed no further stress upon the condition until several weeks later, when there occurred a sudden increase of symptoms—the patient rapidly dying of brain abscess. The first symptom to manifest itself in this case was an unrecognized right-sided hemianopia.

Some patients may complain of occasional and transitory attacks of blindness and nausea. These attacks may be perfunctorily attributed to gastric disturbance. Such attacks last but a few seconds or a minute, and are significant aura preceding retinal embolus, and should lead to further examination of the cardio-vascular and renal systems.

About two years ago a man of 55 was referred to me for refraction. His physician advised and permitted him an automobile trip to San Francisco, and sent him to me, first, for glasses. The patient looked very cyanotic, his breathing was labored, and he dropped into a chair with evident relief. I elicited the fact that he had been treated for kidney disease, and occasionally had blinding spells. This valuable symptom, however, seemed to have been lost sight of in the mass of other symptoms of which he complained. Ocular examination showed that he was completely blind in the right eye, with diminished vision in the left. The ophthalmoscopic examination revealed a most extensive retinal hemorrhage in the right eye; also to a lesser extent in the left. Glasses were no good to this man. I immediately returned him to his doctor, with a hopeless prognosis. He lived less than a month. An early ocular examination would have warned the attending physician of his patient's true condition, and resulted more favorably for both.

In 1858 Donders, of Utrecht, wrote his classic work on "The Anomalies of Refraction and Accommodation," and laid the foundation for the present specialty of ophthalmology, but it remained for such accomplished writers and observers as S. Weir Mitchell and William Thompson, of Philadelphia, to more fully bring to the attention of the medical

profession, in several brilliant treatises, the great importance of the close relationship existing between ocular strain and the nervous system. They called it "functional eyestrain," and showed that it was followed by a train of reflex symptoms of varying severity.

These reflex symptoms vary with the individual and the occupation. A sailor or a farmer may suffer from no reflex eye symptoms even in the presence of a high refractive error, whereas the student or the clerk will complain of considerable asthenopia in the presence of small errors. The robust individual is apt to sustain an ocular defect with no symptoms, whereas the thin, nervous sympathetic type of individual will suffer considerably.

The most common of the functional complaints is cephalalgia. It is usually a browache, and is made worse by the use of the eyes. The pain of these headaches may travel into the neck, shoulders, and even into the arms. M. M. Zimmerman, in a study of 2000 cases in private and clinic practice, found that 71 3/10 per cent suffered from headache. Petit chorea in children, and epilepsy, have been found to be due to irregular astigmatism. Insomnia is a frequent complaint of eye sufferers. It is due to an imbalance of the vertical ocular muscles which, in sleep, cause the eye to assume an abnormal position, resulting in a tension or pull that awakens the patient. Various neuralgic head-pains can be attributed to latent eyestrain, and, if the cause remains uncorrected, may hasten the sufferer into a chronic state of invalidism. Vertigo and nausea follow upon uncorrected refractive errors. I have seen and treated successfully a number of patients who were unable to ride in a train or street-car without experiencing vertigo and nausea, and who were permanently relieved by proper refraction. It is necessary to refract these cases under complete cycloplegia. I recall a case I treated in New York City. This man for twenty years was unable to ride in a train without experiencing vertigo and nausea. Born in Russia, he came to this country convinced that his case was hopeless. Although he was over 50, I elected to refract him under atropine, with the result that I was able, by thus relaxing the spasm of accommodation, to fit him with glasses which permanently relieved his condition.

The study of the character and behavior of the pupils should become a routine procedure in any office examination of a patient, for much can be gained to help in the differential diagnosis of certain constitutional diseases at their early onset. A normal pupil is one that responds to light stimulus, accommodation and convergence, and is a distinguishing sign between the presence of a functional and an organic disease. In the former, these reactions are present or exaggerated; in the latter, they are diminished or lost. An eye that is progressing to blindness, or that is already blind, has partly or wholly lost its power to transmit visual impulses to the brain centers. Thus the reflex arc is broken and the pupil fails to contract. An exception to this is found in cases of visual interference where the lesion is situated either in the internal capsule and affects the visual fibers on their way to the cortical visual area, or in lesions of the visual areas themselves. In these cases the pupillary light reflexes are not abolished. Thus it becomes a valuable aid in the location of cerebral lesions.

It is important, too, to know something about the muscular excursions of the eye. There may be a limitation of motion due either to paresis or paralysis of one or more of the extra-ocular muscles. There may be a squint which is readily recognized, or by a simple test a hidden paralysis is discovered. This test consists of asking the patient to follow with his eyes only, the head remaining stationary, the surgeon's finger, as he moves it from the middle line of the face, first, in a horizontal and then in a vertical direction. In a paresis or paralysis there will be a limitation of the motion of the globe in the direction of the paralyzed muscle. These patients may complain of diplopia. It is important that this symptom should be recognized early, as, by exercising their strong fusion-sense, these patients readily overcome it, and, thus, its importance as a diagnostic symptom will be overlooked by the physician.

From a diagnostic standpoint the pupils play an important role in tabes dorsalis. In this disease we often find the "Argyll Robertson pupil" antedating the onset of muscular inco-ordination, or the loss of knee-jerk. Such a pupil is occasionally noticed in paresis. Here it is of transitory existence, and disappears and returns, whereas in tabes dorsalis it is a permanent condition. Another diagnostic ocular symptom of tabes is a total ophthalmoplegia in one eye. The pupil is widely dilated and cannot contract to ordinary reflex stimulation. This symptom, plus a paresis of an ocular muscle in the other eye, is strongly indicative of a syphilitic origin, whereas a purely "Argyll Robertson pupil" speaks for a tabetic entity.

In multiple sclerosis an interesting ocular symptom, and one that may precede all the other symptoms of this disease, is the presence of an ocular nystagmus. It is highly pathognomonic when shown not to be the acquisition of early infancy—when internal auditory disease is excluded, and high refractive errors are ruled out. It is not an intentional nystagmus of sudden activity, but is usually noticed on strong lateral rotation either to right or left. This symptom, plus an early ptosis, or plus a persistent inequality of the pupils, with diminished reaction to light and loss of accommodation, is strongly indicative of early multiple sclerosis. Another interesting observation in this disease is the infrequency of third-nerve paralysis—that is a complete ophthalmoplegia, differing from tabes where this sign is of frequent occurrence. On the other hand, paralysis of the sixth or abducent nerve is a more common occurrence in multiple sclerosis.

Paresis is a disease which, in its early stage, is difficult to distinguish from neurasthenia. Dercum, of Philadelphia, lays great stress upon one ocular symptom as very helpful at this time, and that is the existence of a slight amblyopia, especially if accompanied by a diminished color sense. He calls it "an invaluable duplex," antedating many of the other symptoms, even the fundus changes. Another significant ocular sign of paresis is an inequality of the pupils, with sluggish reaction to light, or a loss

of the consensual pupillary reaction. A persistent miosis—that is, a steady contraction of both pupils when taken together with other symptoms of the disease, is also highly significant of paresis.

Friedrichs disease is characterized by a complete absence of ocular phenomena, except one, and that one is a very frequent accompaniment. It is a nystagmus consisting of irregular twitchings, occurring only when the eyes are fixed on a moving object, and is more intense than the type of nystagmus found in multiple sclerosis. Thus, in suspected cases of Friedrichs disease, the absence of all ocular phenomena, or the presence of this type of nystagmus, speaks strongly in its favor.

A word about the functional psychoses. Nothing definitely diagnostic has been found in the behavior of the eyes. The pupils may show any type of contraction or dilatation. In the acute mental diseases the pupils are usually dilated.

In cases of degeneracy, with psychoses, we find the following morphological characteristics, such as unusual narrowness between the eyes, unusually wide palprebal fissures, or unusually narrow palprebal fissures, or the pupils may be abnormally situated. There may be a coloboma of the iris, or patches of iris pigment may be found in large spots, or the condition may be one of total albinism.

I shall not dwell upon the fundus changes found in such diseases as chronic nephritis, diabetes, leukemia, hemorrhagic diathesis, arteriosclerosis, and cardiac conditions, important as they are both in diagnosis and prognosis. My aim in this paper has been rather to emphasize the importance of a knowledge of the behavior of the exterior of the eyes in constitutional conditions, as the signs thus elicited are easily accessible to all. These symptoms, when recognized early, will lead the physician to a readier diagnosis, or bring the patient under the observation of the specialized consultant before serious and irreparable pathological changes have taken place both in the eyes and their companion organs.

Westlake Professional Building.

DISCUSSION

Edward F. Glaser, M. D. (391 Sutter Street, San Francisco)—This timely paper brings up the importance of accurate observation, the careful study of ocular manifestations and signs, and the value to the general practitioner of applying the conclusions reached by the oculist. More than any other study, ophthalmology demands and proves the value of the search for, the recognition, and consideration of all signs and manifestations.

Systematic observation demonstrates and teaches us much about eyes. The temptation to hurriedly approach the examination of the subjective symptoms most complained of, may cause failure to notice manifestations of ocular troubles which would aid greatly in a fuller and more accurate diagnosis and, therefore, a more helpful and valuable one for the patient and his attending physician.

In starting his paper, Dr. Gumbiner well terms the eye a "neurologic" organ, an organ of special sense, with many nerve connections. He emphasizes the early involvement of the eye in diseases affecting the central nervous system and the spinal cord. And as in these diseases the pathological changes are often first evidenced in the eye, the value of early eye examinations is obvious and is not always appreciated and made use of by the internist.

The problem of the education of the general public to the importance of early recognition of eye manifestations is a very large and complex one. The onset of many ocular diseases is insidious, and ophthalmologists are often astounded at cases of personally unrecognized failing vision even in quite intelligent people. This is being recognized in industrial medicine and, in their physical examinations of candidates for positions, corporations should include some eye examination and record of the visual acuity of each eye, and thereby safeguard both the applicant and themselves. Not infrequently cases come before the Industrial Accident Commission, where some slight injury directs the attention to the eye and defective vision then first noticed, which examination proves must have pre-existed and is now recognized by the sufferer for the first time and honestly attributed by him to the accident.

The importance in child hygiene of thorough, careful, and scientific attention to ocular manifestations cannot be overemphasized, and doctors, nurse, and parents should never belittle ocular signs and symptoms. Early accurate attention in childhood would save much discomfort in after years. This is well evidenced in such a pronounced manifestation as squint and in which the very early proper care and treatment is of such great importance to correct the squint and preserve fusion sense.

In the adult, early ocular examinations would have perhaps helped to save many patients by giving warning to the attending physician of impending dangers. Statements of seeing "black spots" and of transitory attacks of blindness should not be disregarded, but rather as pointing to a consideration of the cardio-vascular and renal systems.

In conclusion, Dr. Gumbiner is to be thanked for giving us his well-taken points, and we should be constantly on the watch for the ocular manifestations.

G. W. Walker, M. D. (Fresno, Calif.)—Dr. Gumbiner's paper is most interesting and to the point. The mention of routine examination of eyes of employes suggests the question of who is most interested in procuring these examinations. It seems to me not the employer, particularly, as he must pay ample insurance anyhow, but the insurance company could be protected against paying for alleged injuries where really the eye had been previously injured, or where the eye was a defective eye before the injury. Such examinations would save the insurance company money rather than the employer, so the employer is not the one who would be interested in having these examinations, except to lower rates generally, unless he is carrying his own insurance. The workman himself could profit by such examination by showing, in case of injury, that previously he had had a perfect eye.

Choice of occupation in life should only be made after examination has shown sufficient degree of efficiency and probable durability of the eyes to serve in the task chosen. Parents should know the facts early enough to help the child to choose the proper vocation, and avoid bad results of unwise choice.

As to the reluctance of parents to have their children wear glasses for appearances' sake, I find that easily overcome upon explaining the results of amblyopia from lack of use, of an eye in strabismus, or grave danger to the eyes in uncorrected myopia.

We have to educate the public against the prevalent error that cross-eyed children will "grow out of it." Also, we can explain how much better glasses are usually tolerated, if needed, when begun early enough, and the protection from injury to eyes given by wearing of glasses by being a barrier against traumatism, but arguments are often of no avail toward getting the reluctant adult to wear needed glasses.

Beginning glaucoma can be greatly helped, by way of arrest or improvement, by careful elimination of attendant infections. Great aid can be given our patients by competent internists. All familiar with glaucoma know the great difference in results, when

these patients are under the care of a skilled oculist, or, of one best versed in the selling of glasses.

Dr. Gumbiner's plea for a skillful, careful examination of every case is to be taken seriously.

Frank R. Dray, M. D. (2525 Fillmore Street, San Francisco) — The avenues for profitable discussion opened by Dr. Gumbiner are endless, but undoubtedly that of greatest significance and help to us is the plea which his splendid paper makes for thoroughness in examination. This is a point of fundamental importance; indeed, the golden key to successful practice.

Twenty-six years ago, Dr. Frederick C. Shattuck, the wise and much-beloved professor of Clinical Medicine at Harvard Medical School, at the last session of the class of 1898 said that should he, at that last hour, stand continuously shouting the words "be thorough in your physical examination," his time could not be better spent. Thus, in this paper those words are echoed and re-echoed and their import again and again emphasized.

Today we hear much of the increase and spread of the cults. Our journals often picture the spectacle as a growing menace. Charlatans we know ever have been, but their opportunity we ourselves too frequently furnish through neglect of thorough examination.

Dr. Gumbiner covers, in a most comprehensive manner, functional and organic changes pertaining only to the eye. He makes it clear that probably no other organ is affected by so many general pathological conditions. Moreover, what is of inestimable value, how the eye often presents in many cases, the first symptom, the early recognition of which may result in cure or at least arrest of serious disease. It is because of this early eye evidence that every doubtful case seen by the general practitioner should be sent to the oculist, and it is our justification for urging generally regular eye examinations not only among children, but especially in apparently normal adults.

It seems pertinent here to briefly mention two very unusual instances of ocular manifestation. Mrs. S., age 33, is a woman of exceptional intelligence. She has one child, a healthy girl of 11. Family history, negative. Past history includes operation for uterine fixation ten years ago, and one year of mental tension over business difficulties two years ago. During the year of mental stress, she flowed twice a month for four months. Present illness began one year ago, with attacks of transitory dilatation of left pupil associated with pain in left eye, the pain sharp, and shooting through eyeball direct to back of head. These attacks are sometimes ushered in with a sense of nausea. They also are more apt to appear just before or after her periods, which have now been normal for more than one year. In duration they vary from one hour to two or three days. They may occur as often as once a week. Several competent oculists have been unable to discover any evidence of functional change in the eye or ocular apparatus in the interval between attacks or any evidence of organic lesion at any time. A most rigid general examination, including all laboratory tests, reveals nothing but a low blood pressure and slight anemia. No neurological findings.

The ocular manifestations in this case must be due to local ocular vascular crisis or angio-spasm, probably of reflex origin. The phenomena of periodic blindness, muscle cramp, crises in locomotor ataxia, and angina pectoris, although usually seen in the presence of arteriosclerosis, are generally so interpreted, but we also know that vascular crises may occur in normal vessels as is shown by similar vascular phenomena in Raynaud's disease. It will be interesting to watch developments on treatment, this case having been referred for diagnosis but a few days ago.

The other unusual case, a gem to the proctologist, was one of marked ocular muscular imbalance which permanently disappeared after hemorrhoidectomy.

Dr. Gumbiner has certainly given us a worthwhile paper; one in which he has more than realized his anticipations.

Doctor Gumbiner (closing)—Dr. Frank R. Dray's citation of his two cases emphasizes my contention of the close interrelation of the various bodily organs with the ocular apparatus. It is as essential for the oculist to enlist the assistance of the internist or surgeon as it is the other way around.

Dr. Walker's experience in finding it difficult to have his adult patients wear their glasses is very true. The public must be educated to look upon glasses as a treatment rather than a mechanical aid to vision only, and a panacea for all refractive ills. Too much is expected from the use of glasses alone when there are contributory causes to be found in general and local neuroses and in congestive states of the retina and adjacent structures. Patients should not be dismissed with a pair of lenses and told to return in a year or two. Patients often outgrow their refraction in a few months. The expense of glasses is a factor to be considered, and some way should be worked out between oculist and manufacturing optician to lighten the burden. Glaucoma is hardly ever recognized in its early incipiency by the general practitioner, and only occasionally in the acute types. The possibility of this disease lying latent should be kept in mind.

Dr. Glaser's remarks emphasize what I tried to bring out in my paper—the necessity for careful observation, accurate diagnosis, and close co-operation between all the branches of medicine and surgery. Dr. Glaser will agree with me when I say that a routine examination of the exterior of the eyes and the taking of the visual acuity should become as routine a procedure as taking the pulse and temperature.

Are You Treating Syphilitic Patients or Wassermann Reaction?—"Are we treating the syphilitic or are we treating his 4+? This is the question Dr. Graves asks in the June number of the Journal of the Missouri State Medical Association. We have gotten away from the natural history of syphilis and are concentrating on getting a negative Wassermann through the use of 'specific.' The patient's physical makeup, his inherent resistance, his habits, and his environment—in short, the patient himself is more important than the spirochete. The natural defenses of the body should be stimulated by both the patient and the physician, the former by his way of living, and the latter by not weakening the defenses by overdosage with specifics. The drugs we use stimulate the body defenses only, and do not act selectively on the organism. The article stimulates thought, especially in these days of 'over laboratoryization' in so many of our methods."—T. H. E. Mastoid, M. D., Bulletin San Diego County Medical Society.

An Old Friend in a New Dress—The dosage of digitalis has always been a problem—for two reasons: physiological and pharmaceutical. And these two are obviously interrelated, for unless a reliably uniform preparation of digitalis is available, how can there be uniformity of dosage, even though there may be agreement as to the physiologic effect aimed at? The profession seems to be partial to the tincture, unless the case is one which demands hypodermic treatment; and of all the tinctures offered, the best is, undeniably, one that is made from select digitalis leaves, standardized by physiologic test, put up in small packages protected from light and air, and, of course, dated so that the physician can tell at a glance how old it is. The reputation of Parke, Davis & Co. is such that what this house has to say about its Tincture No. 111, Digitalis, in our advertising pages, will be found well worthy of careful consideration. Further particulars, if desired, will no doubt be supplied by the manufacturers.

EPITHELIOMA OF HAND—A STUDY IN DIFFERENTIAL DIAGNOSIS BETWEEN EPITHELIOMA AND ENDOTHELIOMA*

By W. A. PERKINS, M. D., Berkeley
(From the Departments of Dermatology and Pathology, University of California Medical School)

In October, 1922, a rancher, 61 years old, applied for treatment, complaining of ulcers on his right hand and arm. He said that six years ago he ran a splinter into the back of his right hand and that soon after this a lump appeared at the site of the injury. This lump persisted and broke down, and discharged pus intermittently. More than five years later, about four months ago, after pulling on a rope, red streaks appeared on both arms. Those on the right arm remained, the others soon disappeared. The right hand swelled, and a swelling appeared in the right axilla. The latter was opened and a large amount of foul semi-fluid necrotic material was removed.

One week later the lump on the hand was excised. This was examined at a laboratory and the patient informed that it was not cancer. Ten days later a lump appeared on the anterior aspect of the wrist, and following this other lumps appeared, extending successively up the arm as far as the axilla. Most of these lumps eventually broke down and discharged.

When the patient came to me he presented a most remarkable picture. On the back of the right hand was an ulcerated nodule 2½ x 4½ cm., undoubtedly a recurrent lesion at the site of the original injury. On either side of this were scars, the result of the old excision. Proceeding now mesially around the wrist and extending directly upward on the flexor surface of the arm was a striking series of similar nodules. These were of different ages and sizes, ranging from ¾ to 3½ cm. in diameter. All but one or two were quite definitely ulcerated. When close together the nodules tended to coalesce into a single large area with raised irregular borders and ragged excavated center. Two such areas were present at the wrist and in the axilla, measuring 7½x14½ cm. and 4½x9½ cm., respectively. Where discrete the nodules appeared typically as bluntly acuminate swellings marked by thick rounded borders and sharp crater-like centers. At times two neighboring lesions were joined by a narrow subcutaneous passage. A distinctive clinical feature observed was the outpouring of an abundant pale watery turbid fluid from all of the open lesions. Associated with the above was a marked diffuse swelling of both the hand and arm to about twice normal size.

Such was the gross picture, and the first point to be settled was that of diagnosis. With the history as outlined above, some form of infection was quite naturally suspected. Cultures were made from the lesions; the discharge examined for coccidioidiosis, actinomycosis, sporotrichosis, and oidiomycosis. The ulcer borders were biopsied and frozen sections prepared. The bacteriological studies were negative. Smears of the discharge from several of the lesions were also negative. The frozen sections, however, yielded a clue, for they showed a form of new-growth. This from the first appeared unusual. That it was malignant was obvious, but just what type the cells might be could not be determined so readily. Owing, however, to the presence of certain marked characteristics to be described later the diag-

Fig. 1—Showing the recurrent ulcerated nodule on the back of the hand at the site of the original lesion.

Fig. 2—Showing the general distribution of the lesions up the front of the arm, with the large coalescent areas at the wrist and axilla.

Fig. 3—Showing both discrete and conglomerate lesions with the gross characteristics of each: note the crater-like centers.

* Presented to Section on Dermatology at annual meeting of A. M. A., San Francisco.

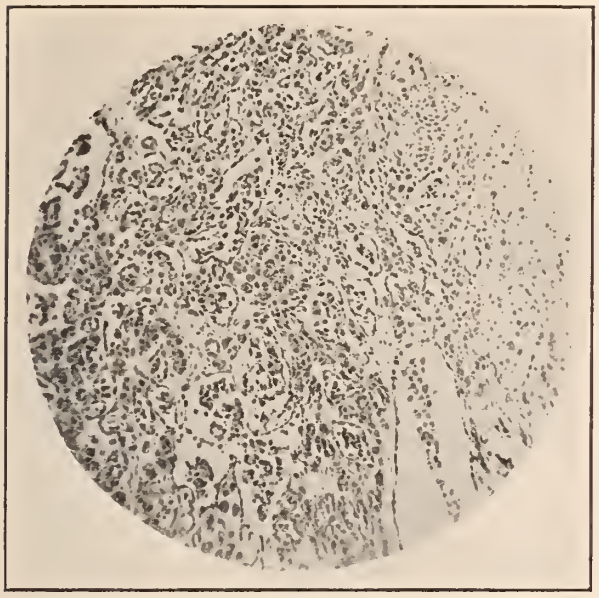

Fig 4—Showing the peculiar cell-lined spaces, also the arrangement of tumor cells between the spaces.

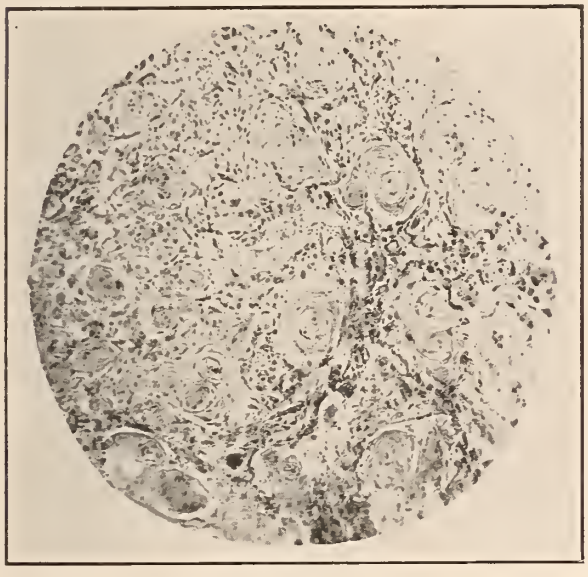

Fig. 5—Showing the cell whorls.

nosis of endothelioma was strongly suggested, and such a diagnosis was tentatively rendered.

The patient was in fair general condition, the tumor apparently limited to the arm, and the chance for cure at least possible. A shoulder-girdle amputation was therefore performed. The man made a good recovery, suffered no complications, and left the hospital two months later in excellent physical condition.

Further studies were made of the lesions. Grossly the tissue was firm and semi-elastic, and on section homogeneous, gray-white and succulent.

Microscopically the sections showed an extensive tumor invasion. This involved primarily the corium and adjacent subcutaneous tissue. From thence it extended upward to invade the overlying epithelium. The general appearance of the growth presented two noteworthy features. The first was the presence of numerous clear-cut spaces, easily seen, and of various shapes and sizes. Some were large and round or oval, others were mere branching crevices. All were lined by a continuous layer of tumor cells. Of these some were large and plump, others bore a triangular appearance with the point projecting into the lumen; while yet others were flatter in outline, though still showing a bulging free surface. Not infrequently all three varieties were intermingled together in the same space, irregularly alternating. The lumina themselves were varied; some were entirely empty, others were filled with the tumor cells, and still others were only partly filled. In the last the cells lay either entirely free or piled up at one end as though proliferated from the adjacent underlying tumor cells. Nothing suggestive of an endotheliat lining could be made out external to the tumor cells. In none of the spaces was blood seen.

Between the spaces were other tumor cells vari-

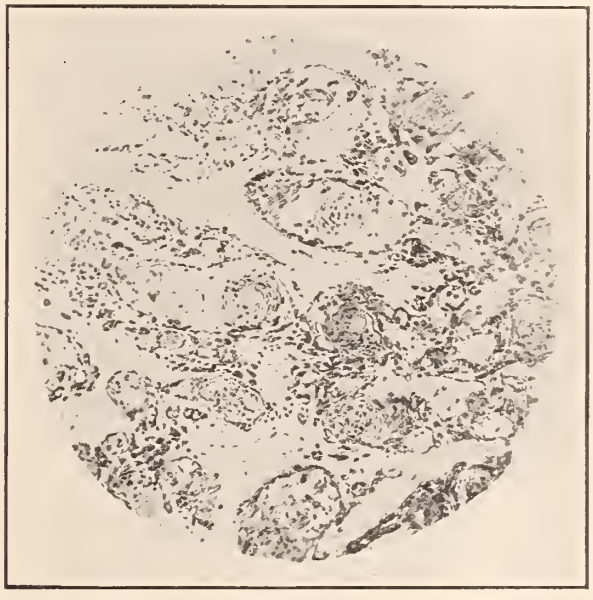

Fig. 6—Another view of the whorls, showing them inside as well as outside the spaces.

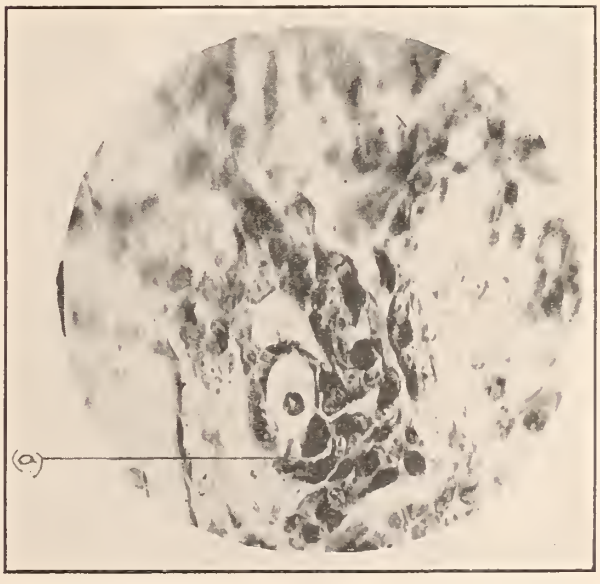

Fig. 7—A high power view of the tumor cells, showing the "prickles" (a) and the nucleoli.

ously arranged, sometimes in long branching columns, again in small rounded or oval areas, and still again in larger sheet-like masses. Some of the columns showed fissures, suggesting lumen formation.

The second striking characteristic was the presence of large numbers of sharply outlined rounded bodies resembling epithelial "pearls." These were composed of tumor cells compactly arranged in concentric whorls, and were irregularly distributed throughout the growth, occurring about equally within and outside the spaces.

The tumor cells themselves were fairly uniform in size with an abundant pale staining cytoplasm, finely reticulated and sharply outlined, and with nuclei that were large and vesicular and supplied with only a small amount of chromatin. Mitotic figures were numerous.

Up to this point the description might very well apply to the tentative diagnosis, endothelioma, due to the histology of the cells, the formation of numerous spaces, and the presence of the pearl-like whorls. If also we were to add the abundant watery discharge described we might be justified in going even further and using the term lymphangio-endothelioma. In this, however, it seems not impossible that we may have been somewhat influenced by recalling in Mallory's Principles of Pathologic Histology a cavernous haemangio-endothelioma with a lesion distribution very similar to that just described. And then more recently Busman described a case that both grossly and microscopically very closely resembles our own.

Despite such confirmatory evidences, however, we were not yet definitely assured as to the correctness of our diagnosis. Recourse, therefore, was had to certain differential stains and to further attention to detail. By these means we were able to determine the three following additional points: First, it was noted that practically all of the tumor cells possessed one and sometimes two or three distinct nucleoli, a feature more common to epithelial than to endothelial cells; secondly, some of the cells were found to have a quite definite border of very fine protoplasmic projections or "prickles," demonstrated by the Mallory acid phosphotungstic haematoxylin stain; and finally, in certain of the cells composing the whorls there were seen distinct kerato-hyalin granules, shown best by the Gram's stain. These last two points were particularly important, for prickle cells and keratohyalin granules are not found in endothelial structures (Ewing). It thus became necessary to reconsider our previous diagnosis and to transfer the tumor from the group of endothelioma to that of epithelioma.

Concerning the method of spread, the following may be stated: The extension was relatively slow. The nodules were all external to the deep fascia, invading the corium and subcutaneous tissue first, and subsequently ulcerating through the epithelium. The axillary nodes were definitely involved. The tumor was growing within numerous thin-walled bloodless spaces in which endothelium had apparently been replaced by tumor cells. There was never at any time any hemorrhage from even the most extensively ulcerated of the lesions. All of which tended to indicate a spread of the tumor by way of the lymphatics.

The later history of the patient can be briefly disposed of. From the two or three communications irregularly received we learned that shortly after his discharge from the hospital there developed at the site of the wound first one nodule, then another; that the man continued to lose ground slowly, but steadily; and that at the last writing (May, 1923) he was in the hands of a sure-cure cancer doctor in Oklahoma, undergoing a plaster-poultice method of treatment.

3135 Webster Street.

DISCUSSION

Howard Morrow, M. D. (380 Post Street, San Francisco)—In my experience the condition was a clinical entity. The great number of ulcers limited to the hand, forearm and arm, the profuse weeping from the individual ulcers, the lack of dense infiltration in the borders of the ulcers, and the absence of systemic growths, were conditions which made the clinical picture unique. It was difficult further to eliminate sporotrichosis clinically. The differentiation of endothelioma from an atypical carcinoma must remain in the hands of the pathologist.

G. Y. Rusk, M. D. (U. C. Medical School, San Francisco)—Through the courtesy of Dr. Morrow I had an opportunity to see the case clinically as well as to follow Dr. Perkins' careful and thorough study of the growth. The distribution along the superficial lymphatics, with the numerous outcroppings in the form of weeping ulcers, strongly suggested to my mind an endothelioma. The early frozen sections were inadequate to make a differential diagnosis. The direction which the investigation took, the findings, and the reasons for the ultimate diagnosis are clearly presented in Dr. Perkins' paper.

W. A. Perkins, M. D.—The laboratory report on the tissue from the original nodule removed four months ago was "not cancer." We regret that this work was done so far away (in Arizona), precluding further investigation of that point. Had the patient remained longer in the hospital it is possible that suitable treatment of the local recurrences of the growth might have resulted in a complete eradication of the tumor. One or two x-ray treatments had been given before discharge of the patient, but these proved insufficient.

I wish to thank Doctor Morrow for the privilege of reporting this case, and Doctor Rusk for the many suggestions and valuable assistance which he gave in the study of the material and the preparation of the report.

A Non-Elastic Faith—"The Christian Science Monitor expresses hot indignation at measures that have checked foot and mouth disease in California," says Colorado Medicine.

"'Los Angeles,' it says, 'and a considerable portion of the country thereabouts, have been subjected for the last few weeks to an extraordinary manifestation of the results of hysteria caused by medical superstition and medical domination. Because of an alleged epidemic of what is called foot-and-mouth disease among the cattle in adjacent regions, the veterinarians and the health boards of that section have been assuming powers hitherto unknown to the most notorious autocrats of history.'

"The Monitor should be more tolerant. It cannot expect animals with foot and mouth disease to read Science and Health, and it can scarcely hope to convince them that there is no such thing as disease. Why not, then, fashion the faith a little, and persuade Christian Scientists that there is no such thing as quarantine?"

"Efficient government is not the result of a shifting series of political expedients, nor can free institutions be permanently maintained without rigid adherence to certain basic truths."—J. H. Beal, The Force Behind the Law.

MODERN MEDICINE AND THE PUBLIC ATTITUDE *

By ROBERT WILLIAM LANGLEY, M. D., Los Angeles

The modern relationship between the patient and the doctor is a subject of interest and has been the topic of much discussion. Many feel that this relationship has been undergoing a change during the last few years wherein a spirit of doubt and dissatisfaction often arises, and without sufficient cause. The reason for this apparent lack of confidence is a problem worthy of the close attention of the medical profession itself, for it causes patients to shop hither and thither among quacks and advertising specialists of every description. That it is not being given sufficient attention by the profession as a whole, is probably one of the reasons for the existence of these conditions.

Men of the medical profession have trained their minds to weigh carefully every new development in the scientific world in order that their patients may have the benefit of the gains made in therapy, but have not given sufficient attention to protecting the patient from the wiles of the scheming charlatan. Much has been accomplished in fifty years, and every year the tireless laboratory workers and other physicians lengthen the span of human existence. Many laboratories, research and clinic groups, are constantly contributing to our scientific knowledge of medicine, and some diseases are rapidly being eradicated from the face of the earth. Worthy philanthropists have contributed large sums for these purposes and for the betterment of medical schools and hospitals, which have been of vast importance, in the training of better doctors. The triumphant work of Banting and Best and their co-workers in the discovery of insulin is without a precedent in fifty years. There are thousands of other men in the medical profession giving their lives, their skill, and their money in the same scientific spirit. They accomplish much, and we must ask why quackery flourishes in the light of such facts. One is forced to wonder who has been the more talked of—the late Abrams and his followers with their quackery, or men of the scientific spirit of Banting and Best, who give to the world freely the results of their years of work.

REASONS FOR EXISTING CONDITIONS

Some are prone to blame the medical profession entirely for this existing lack of confidence, while others find their excuse in the more critical modern attitude of the layman.

People as a whole fail to realize that the science of medicine is not a definite and fixed one, but that it is a constantly changing progressive study with a great deal yet to be learned. Existing in a world built of concrete facts and cock-sure statements, the average person is, because of his environment, inclined to favor the medical man who will guarantee a cure and prove his assertions by a process of alleged reasoning that will appear to the untrained mind as logical—not a difficult procedure. By this method of demonstrating absolute cures and acquiring the testimony of neurotic and deluded patients who believe themselves cured of imaginary ills, much, in an advertising way, is accomplished, and hence quackery flourishes and probably will flourish unless combated by some means as powerful as that used to induce the condition.

Probably one very important factor responsible for the existing conditions is the modern tendency to highly specialized medicine. In this type of work we often lose that close contact which is so essential with many sick people. They need not only the science, but also the art of medicine and the humanity of medicine to help cure them. There should always be a goodly mixture of art and humanity combined with the science. The art of medicine combines a proper understanding of the mental processes involved in each case with a kind, yet firm, treatment of the patient. Many need the physician's personality—not so much his drugs. Christian Science and other sects sometimes supply that personality and in some neurotic patients obtain apparent results for apparent conditions. Medical specialists are prone to send patients hither and thither, thus losing essential touch with the patient, and also losing his confidence. In this manner, machine-made medicine is produced.

The lack of a fundamental understanding of the principles of biology has much to do with the present state of affairs. Even the modern high school and college graduate often has not been taught the elemental subjects so essential to an understanding of the human structure. Charlatans may set up claims and guarantee cures, and when the patient asks us why we cannot do likewise we find ourselves unable to refute such claims because of the lack of a common language in which to discuss the subject. Whenever a supposed cure has been played up to the public by every known means of advertising, it is almost axiomatic that its value is nil. A remedy of merit needs very little advertising and is very willingly added to the therapeutic armamentarium.

THE INFLUENCE OF EDUCATION

Probably the keynote to the solution of the problem was emphasized by Dr. Ray Lyman Wilbur in his presidential address before the A. M. A. at the annual convention in San Francisco last June. He urges a more extensive and thorough teaching of biology in the public schools. To educate the boy and girl far enough along these lines to be able to understand the cause, effect, and possibility of cure of disease is most certainly of unquestioned value. When this suggestion is more thoroughly carried out, medical problems can be more intelligently discussed with the friends and relatives of patients by the doctor. Then, step by step, all that has happened and all that can be expected to happen and what is being done can be explained and understood. A frank discussion of the extent and nature of a malady with the relatives of a sick one is always appreciated and may often add moral support where otherwise the doctor may be under constant criticism, and without just cause. These discussions must be understood and must be convincing.

Education is the best advertising medium we have. Huxley once said, "A little knowledge is a dan-

* Read before the Innominate Society of Los Angeles, April 9, 1924.

gerous thing, drink deep or taste not the Perian spring." We know how true this can be when applied to medical discussions. Properly censored news items in papers and magazines, however, may be of great value. Herein rests a vast responsibility upon the shoulders of editors, in sifting the chaff from the wheat. Close co-operation between physicians and newspaper men can thus aid materially in the cause of better health. Many newspapers refuse to accept quack advertisements, and even quack syndicated propaganda, in so far as they appreciate its purposes. There are some editors and publishers, however, who excuse themselves for utilizing unwise publicity with the statement that it helps their circulation, and, therefore, it must be what the people want.

The real value of health publications, such as California physicians have been promoting in Better Health magazine and Better Health newspaper services for many years, and which the A. M. A. has now taken up through the publication of Hygea, can hardly be overestimated. Thorough, carefully prepared publicity should be given about all advances made in medical research.

The public is very slow to grasp the ideas of preventive medicine, and knows very little as to how much can be accomplished toward, not only curing diseases, but also in limiting or preventing them. The efforts and achievements of sanitary engineers, health commissions, and kindred institutions should become a matter of common knowledge among the public. People should be made to understand and appreciate how readily the medical profession accepts and uses curative agents of established merit, and how zealous the leaders of medicine are for stamping out and controlling disease.

THE PHYSICIAN'S OWN INFLUENCE

Much of the problem of creating an enlightened public opinion about health, of course, will rest with the individual physician. His own ability and conduct can be of far-reaching and lasting value. Only men and women constitutionally and temperamentally suitable should consider the profession of medicine, whether preventive or curative, for their life work. Others will fail and bring more or less discredit to themselves and to the profession. In talking to the patient, the patient must realize that the physician is vitally interested in his (the patient's) welfare. and is anxious to see him get well. This attitude constitutes "selling oneself" in medicine and should be devoid of any conscious effort on the part of the physician. If money is the greatest goal in the young student's life, he will attain greater success in some other field. With ordinary business acumen, no physician will starve; neither will he become rich from the practice of medicine. With an equal amount of time, effort, and ability, a greater yield in financial prosperity should be and undoubtedly will be found in the business world.

SUMMARY

When quackery is sufficiently exposed to the light of the principles upon which the profession of medicine is founded and upon which it is conducted, it will become a problem of minor importance. This can be accomplished by a more thorough teaching of the fundamentals of biology in the public schools; by the education of all persons through health publications, properly censored news items, and magazine articles; by extensive propaganda covering all work done along the lines of preventive medicine and better health; and by the influence of each individual physician in living strictly to the principles which have kept the profession on that high plane which makes it an honored work.

1052 West Sixth Street.

DISCUSSION

J. Mark Lacey (1052 West Sixth Street, Los Angeles)—Dr. Langley has treated this subject well indeed, showing that he has given it time and thought.

Problems involving the social, economic, and educational side of the practice of medicine are presented each day, and these problems must be faced and worked out. If we neglect them, we fail in our duty. With the immediate business of practicing our profession, we get into a rut of allowing the future to care for itself, and, in fact, very few busy practitioners have time or thought for much else.

Dr. Langley has pointed out very clearly the fact that the fundamental basis whereby the charlatan may be disarmed and the practice of medicine brought to a higher level, is by means of education of the laity, and this can only primarily be successfully accomplished by proper teaching in the public schools of those subjects which deal with the underlying principles of biology and physiology. One is astounded, in glancing over the curriculum of schools, by the fact that these subjects are either absent or optional.

The efforts to obtain properly censored news items, relative to the progress which is constantly being made in clinical and scientific research for publication in the various health journals throughout the country, is indeed a step in the right direction and cannot help but bring forth fruits in time.

The work of standardization of hospitals has been the means also of impressing upon the doctor himself that better work must be done and in itself is having its effect upon the public in general. It has in a measure brought about the separation of politics from the operation of these institutions which has in the past played a very important role.

The author is to be congratulated on this timely and well-handled paper.

Paul B. Roen, M. D. (6422 Hollywood Boulevard. Los Angeles)—The increasing number of papers in our magazines shows that the regular physician is at last awaking to the fact that something must be done to protect the public against the growth of the cults.

We have been so interested in the scientific side of medicine and specialization that personal touch has been lost with the patient.

In the past when the profession has gone to extremes, the reaction of the public has been the support of some form of irregular practice. For instance, overdrugging with shotgun prescriptions and reckless surgery gave rise to manual therapy and bloodless surgery, as expressed in osteopathy. Although the mental side of the sick has been recognized as long as there have been physicians, yet no adequate means were formulated to combat this important phase of illness. Hence, the public turned to Christian Science.

Cults and faith cures have always existed and will until the time when medical science can cope with all mental and physical ailments with which the human race is afflicted. Until that time, and may it not be far distant, the only remedy of the existing evils is, as Dr. Langley has shown in his admirable paper, in the education of the public. Quackery thrives on ignorance. To argue with the public on the merits or demerits of any existing systems of

treatment of the sick is merely advertising them, which is what they want. The public is too ignorant of the fundamentals of the science to grasp the meaning. Therefore, education of the public is of prime importance, and this can be accomplished in the ways Dr. Langley has suggested: in public schools, the press, and by the individual doctor. Pressure should be brought to introduce into the schools the proper studies, and more publicity should be given to the press in an interesting and proper manner. Each one of us as physicians should take it upon ourselves to instruct our patients. All we ask of our patient now is blind faith, and blind faith is not characteristic of this age. People want to be treated as reasoning human beings. They feel it is their right to know the why and wherefore of their condition. A little time in explanation is well spent in the education of the public.

DISTURBED METABOLISM AS A BACKGROUND FOR DISEASE

By LOVELL LANGSTROTH, M. D.
(From the Department of Medicine, University of California)

We have found several therapeutic measures to exercise such a profound effect on the health of body tissue that we have been led to question whether this was not accomplished through influence on metabolic processes. Heretofore metabolism has been largely considered from the point of view of oxygen consumption and carbon dioxide production. When these fell within certain limits the metabolism was considered normal. When nutrient material in proper proportions replaced the food burned in the body the demands of metabolism were fulfilled. Now, however, we are beginning to see that various rather occult influences are working to control these processes. It has been shown, for instance, that certain substances found only in fresh food and called by Funk vitamins are necessary for normal growth and existence in animals. These must be considered as influencing the metabolism, even though, in their absence, the oxygen consumption and carbon dioxide production are normal. In the same sense, if through failure of certain controlling factors an organism gains enormously and out of all proportion to its fellows in weight, the metabolic processes must be considered abnormal. It would seem, then, as though there were several factors which influence oxidation in the body qualitatively instead of quantitatively, controlling them in such a way as to result in normal function.

The factors which have been found to influence metabolism so profoundly are food, body activity, mental activity, and sun exposure.

The question of the applicability of the newer facts regarding nutrition of animals to humans has recently been discussed by McCarrison and McCollom. It seems certain that our instincts in regard to amount and choice of food are faulty. Frequent questioning of patients has led to the belief that the diet of all those who work at manual labor, most of those occupying less lucrative positions in other walks of life, and a portion of well-to-do people is faulty in three respects: first, in excess of calories; second, in excess of artificial carbohydrates, such as starch and sugar; and third, in deficiency of such fresh foods as contain vitamins. It is very frequent to hear of breakfast made of toast, cereals and coffee; lunch made of meat, potatoes, bread or cake, with only slight changes in regard to dinner. It is easier and cheaper to satisfy the appetite with these foods, which obviously are deficient from our new point of view. The effects of such a diet are modified by certain other factors, such as exposure to sun, exercise and psychological processes, but tend to produce degenerative diseases and a lowered resistance to bacterial infection. The degeneration appears usually throughout the organism. It is evidenced by the color and texture of the skin, the color of the sclera, the feel of the tissues, the behavior of the heart, arteries and vasomotor system, impairment in the joints and locomotor system, and functional insufficiency in the gastrointestinal tract. The nervous system should also be mentioned as profoundly influenced in such a way as to give increased irritability. Along with these degenerative changes there comes increased susceptibility to infection, beginning with such things as common coryza and ending with serious infections, such as appendicitis or cholecystitis. The degeneration and the lowered resistance appear together, so that frequently the effects of the one are laid to the other. A common age for the appearance of these changes is from 35 to 45, though of course this is influenced by the modifying factors mentioned above and by heredity. Just as in laboratory animals, proper nutrition of the preceding several generations in respect to vitamin-containing foods will result in animals having more resistance to food deficiency, so in different individuals the food of parents and grandparents will influence the age at which improper feeding will bring on these metabolic changes.

The second great factor which we have found to influence metabolic processes is bodily activity. Any consideration of proper body activity must take up, first, the efficiency of the machinery with which the exercise is to be done. It is obvious to those interested in posture that no activity without undue effort is possible to those individuals who stand in a state of ill balance, who have pronated feet, sprung knees, sway backs, prominent bellies, and forward shoulders and head. To many such mere standing is a nervous effort because of the lack of balance of enervation required in this act and complaint will be made of points of strain in the lower back or neck. Minor degrees of faulty posture will be fairly well compensated until middle age, perhaps, when the points of strain may be the sites of special localization of degenerative metabolic arthritis. Exercise implies to us balanced movement of all of the muscles of the body, which is restful and relaxing unless carried to extreme. In this sense, any work which has to be done in the sitting or stooping position with the back bent forward, the chest compressed, the diaphragm low and inactive, and the abdominal muscles relaxed, is neither restful nor relaxing, and cannot be called exercise. We believe that proper exercise in a normally balanced individual to the point where muscles, tendons, ligaments and joints are stretched and pulled, breathing and circulation are markedly quickened, and slight fatigue is felt, increases the local resistance of parts involved to both trauma and infection, and has a stimulating effect on metabolic processes throughout the body. The better bal-

anced the body, the better developed the musculature, the less will be the effort and the greater the benefit.

The results are decreased irritability of the nervous system, increase in sense of well-being and physical power, decreased fatigue in doing work, increase in speed of reaction of the vasomotor system and more normal activity of the gastrointestinal tract. The importance of proper body balance, or posture, and proper body development, or power, is emphasized by the fatigue developed when work or exercise is attempted in their absence. Fatigue is perhaps the most potent factor in lowering the resistance to infection and making apparent the functional deficiencies of various organs or of the organism as a whole. To make this clear one only has to point out the frequent gastrointestinal crises in an ill-balanced individual who has been overeating from poorly selected foods without exercise and working in a state of mental overconcentration for years. They are characterized by nausea, anorexia, headache, constipation, the syndrome called biliousness, and brought on by fatigue induced either by unusual gastrointestinal overload or unusual physical or mental strain. The important point is to consider the organism here as a whole and the fatigue state as a reaction in a bad piece of machinery to a stimulus which in a normal individual should pass almost unnoticed. In youth these individuals possess a certain reserve of strength which covers up the reaction, but as duties and responsibilities multiply this is exhausted and the symptoms of fatigue appear.

The third great factor which we have found to influence metabolism is the type of psychological reaction of the individual. When absolutely normal this allows of contact with other beings in almost any situation without sense of fear or unusual effort; it permits of the accomplishment of work without undue expenditure of energy, without overconcentration. Various degrees of abnormality make ordinary intercourse with others an effort or an agony. The habit of overconcentration is a great American fault. It results in an expenditure of energy at too high a rate; it tends to allow one problem to occupy the mind after the interval when physical contact has passed; it finally carries an individual through routine movements with his mind occupied with things entirely apart from them. The rest which comes from frequent and purposeless change of thought processes originating in sensory impressions is lost. The mind loses the power of being actively stimulated by the trivialities about it and grows weary from constant daily rehearsal of the same problems. Practically all of these abnormal psychological reactions produce their deleterious effect on the mind through the fatigue of endless monotonous repetition, and its first symptom is increased irritability of the nervous system to somatic stimuli. The expression of the fatigue is then often on a physical plane; disorganized movement of the gastrointestinal tract, loss of proper vasomotor control, increased sensibility to somatic processes and increased muscle tone and restlessness. When sleep is insufficient or fails, physical and mental degeneration rapidly follow. To mistake such manifestations for local disease of the organ in which they occur is to do the patient the greatest possible harm, for it often prevents or makes reassurance difficult when the true cause is discovered.

A fourth factor which we consider influences metabolism is sun exposure. In this respect we may take our lesson from the history of races which live with their bodies largely exposed to the sun, or from the now well-known effects of sun exposure on experimental rickets or on the ophthalmia induced by deficiency of fat soluble A. The benefit from the sun's rays in tuberculosis must be through effects on metabolism.

I feel that each of these factors plays a large part in the metabolism of the individual, at least when we regard normal metabolism as leading to health, and abnormal metabolism away from it. Each may be said to modify the other in some way. Thus, a well-balanced muscular individual whose work consists of balanced movement in the sun and falls short of fatigue will tolerate more excess of starch and calories and less vitamin-containing food. But this same individual, working under the same conditions when confronted with mental problems which he allows to become obsessions, will show fatigue symptoms, lowered resistance and degeneration; or, an individual with moderately bad posture and the habit of overconcentration may compensate for these by proper exercise and food, but develop arthritis when the diet is deficient in vitamins or over-rich in the artificial carbohydrates and the exercise is stopped.

From a conviction of the importance of each of these factors to normal metabolism we have been led to explain the origin of many diseases on this background of disturbed metabolism. We are convinced that this plays the principal part in lowering resistance to the common non-specific infections, and by such we mean those infections which do not usually confer a lasting immunity, in contradistinction to typhoid, diphtheria, and the various exanthemata. Common colds, sinusitis, the bronchial and lung infections, the various gastrointestinal and skin infections we believe fall in this class. Such metabolic abnormalities we feel sure are at the base of such diseases as arthritis, many circulatory system degenerations, and much vague so-called functional disease.

This conception has largely influenced our therapeutic plans and enabled us to carry them out in a more fundamental way. Treatment of a disease has meant, first, establishing a background for it, determining to what extent damage has been irreparable, instituting reparative or ameliorative medical or surgical measures, and then setting about modifying the background when this has been possible. To many patients, acceptance of such a point of view is difficult because of its newness and simplicity. A sufferer from so-called hyperchlorhydria or hypersecretion, accustomed as he is to fractional gastric test meals, alkalies and bland food, will often refuse to put the responsibility on carbohydrate excess, overweight and inactivity. When it comes to a question of self-denial and persistent effort, he finds it easier to believe that his stomach needs specific treatment, which further sensitizes the nervous system to somatic stimuli. Many times the question is largely an economic one. Proper vegetables and fruits are expensive, and for many almost unobtainable. They keep poorly as compared with potatoes,

bread and sugar. Physiotherapy for the proper development of ill-balanced bodies is difficult to obtain and expensive. Telling a posture patient to go out and exercise is doing him more harm than good because of the excessive fatigue due to ill-balanced movement, and controlled exercise is essential in most cases for a considerable period of time. Treatment of the mental state is arduous, but essential for restitution of health. Temporarily, responsibilities must be lessened and the situation made simple enough that rest is obtained, but the aim should always be to build up sufficient strength and understanding to allow the individual finally to adapt himself to his environment, unless that be intolerable.

It is evident that there are stages in degenerative or infectious disease where any such methods of treatment are inapplicable because of the extent of organic change. An estimate must first be made of the degree of permanent impairment, for the treatment of an individual with a chronic nephritis and only 30 per cent of normal function will be modified by his kidney condition. In fact, the application of these principles I have found of greatest value in those who complain of headache, fatigue, the milder forms of indigestion, arthralgia, etc. In other words, in those in whom as yet there is no evidence of established disease. This is, after all, the field in which we should be most eager to get results because of the opportunity to prevent the onset of irreparable damage.

In order to show the results achieved in different types of illness the following case reports are appended:

Case I.—Mrs. B. This is the case of a woman of 42 who had an oöphorectomy and appendectomy in 1906 following divorce from her first husband. After her operation she developed left-sided weakness which was attributed to a stroke. There was a later history of loss of consciousness for two weeks following an emotional upset. After her divorce she was weak and nervous. She had a nervous breakdown in 1909. She had suffered from headaches for three years. The pain began in the back of the neck and traveled up over the head to the eyes and was accompanied by nausea and prostration. She tired easily and had been indoors at her housework practically all of her life. She weighed 170, was strongly built, but flabby and pale, and had cold hands, feet and ears. The sclerae were muddy. The tonsils were moderately enlarged. There was a faint systolic blow at the apex and base of the heart. The heart tones were feeble, the blood pressure 160/90. The abdominal wall was flabby. There were no signs of disease of the nervous system. There was considerable lumbar lordosis and a forward head, neck and shoulders. The upper dorsal and cervical spines were tender, though movement here was fair. All the laboratory examinations were negative. This woman's headaches were attributed to fatigue on the basis of weak musculature, poor posture, circulatory and vasomotor asthenia. She was given a diet containing liberal amounts of meat, milk, eggs, fruits, vegetables, cheese and nuts, with cod liver oil and yeast. No sugar or starch was allowed. Her physiotherapy was begun with vigorous general massage and baking for the neck. Breathing exercises followed, then resistive, and finally general exercises. There was prompt cessation of the headaches; the sclerae became clear, the cheeks and lips pink; the general strength gradually increased.

Case II.—Mr. F. J. This is the case of a man of 30 with asthma. He began to have persistent colds with sinusitis at 19. At 23 he developed asthma following a cold, and for two years before I saw him was short of breath and wheezy every night. Vaccines never helped him. He had been tested for sensitivity to proteins. He showed slightly reddened tonsils, moderately bad posture, squeaky rales in his chest, a low blood pressure—105/80—and low arches. His nasal passages showed nothing abnormal. He looked tired. His laboratory work was all negative and he showed no reaction to a large number of pollens and food proteins. The bronchial spasm was attributed to persistent infection in the bronchial mucous membrane, following his attacks of coryza. These were preceded by a lowering of general resistance due to fatigue from bad posture and lack of exercise. He was kept in bed for a month to increase his resistance, and when his spasm relaxed, massage and resistive exercises were begun. The attempt was made to deepen his chest, strengthen his diaphragm, correct his posture and increase his strength. Change in his neck gradually necessitated his wearing a collar a whole size larger, and his waistcoat had to be let out about four inches. He continued having a little spasm at night for a long time, but the gymnasium work was continued and in six months he was dismissed. Two years later he was able to pass an examination for life insurance and was completely cured.

Case III.—This is the case of Mrs. P., a woman of 55 with asthma. She had had mild arthritis of her fingers for fifteen years with occasional joint pain in the left knee. Six years before, following a period of great mental strain, she caught a very bad cold, following which she developed wheezing and asthma, which lasted most of the winter. She had several bad attacks later and avoided exertion because it brought on wheezing. She showed moderate degenerative arthritis of the hands and spine, a few crackles in her lungs, a blood pressure of 155/88, but was otherwise negative. Her laboratory work was all negative. It was considered that she had a very small circulatory reserve, lowered resistance from strain and fatigue and disturbed metabolism from improper eating and lack of exercise. She was given a diet of about 1700 calories, but the artificial carbohydrate was limited to three slices of bread daily. She lost about fifteen pounds. Physiotherapy was begun at once, as she was practically free from spasm. The attempt was made to increase her vital capacity, strengthen her respiratory muscles and increase her cardiac reserve.

She improved rapidly and was able to exercise normally, but had to be very careful to avoid fatigue and take to her bed promptly at the first sign of a cold. In this way all asthma was avoided.

Case IV.—Mr. G. This is the case of a man of 41 who was referred by Dr. Franklin on account of attacks of iritis. He had always been a very heavy eater of concentrated foods, and at 25, when he stopped leading an active physical life in the open air, his weight jumped from 190 to 215. After that he had a great deal of pain from arthritis of the spine, for which he had a tonsillectomy, prostatic massage and the usual dental work. After his graduation from college at 20 he had attacks of iritis, sometimes as often as two or three a year. He had an active iritis in the right eye, which was the site of an old iridectomy. The left pupil was irregular and contracted. His hands were blue, his abdomen protuberant, and his whole spine practically rigid. His tongue was coated and his breath characteristic for individuals who eat improperly and under-exercise. All laboratory tests were negative. His arthritis and iritis were attributed entirely to improper food and lack of exercise. He was given a diet of 2000 calories with large amounts of fresh vegetables and fruits and the artificial carbohydrates limited to three slices of bread. Physiotherapy was at that time not available. In two weeks he was better, and in two months his spine was practically free from pain, though stiff; his eyes had quite cleared up and he felt better than for ten years.

Case V.—Miss H. This is a case of a woman of 38, seen in 1921 for headache and nervousness. She developed a cough in 1918 and was thought to have tuberculosis. In 1919 she went to Colfax for some months and improved. Tubercle bacilli were never found. After 1918 she was unable to work. She

suffered frequently from headaches and had pain all over her body. She never exercised, but ate a fair diet. The x-ray showed old peribronchial tuberculosis. There was no activity apparent. Under rest, over-feeding and physiotherapy she improved in three months so that she was walking several hours daily and taking very vigorous general exercises. For two years she was up and down, but never free from complaint until recently she was given a diet containing no artificial carbohydrate and large amounts of fruits and vegetables. Ultra-violet irradiation was begun every day and she soon improved very markedly in strength and felt absolutely well. Her headaches and general weakness were attributed to fatigue on the basis of lack of proper musculature, but the part that diet and sun exposure played in her treatment makes it clear that these were equally important.

SUMMARY

Restriction of the caloric intake to the approximate metabolic needs, by elimination of starch and sugar and substitution of such vitamin-containing foods as milk, fresh cooked vegetables, and raw fruits, results in increased tissue health. This is manifested by lessened fatigue, increased resistance to infection and regression of beginning degenerative processes. Exercise when carried out by an individual so balanced that it does not result in fatigue of isolated muscle groups is a powerful adjunct to proper feeding in promoting normal tissue metabolism.

Personality defects through the fatigue incident to the struggle for adjustment are powerful factors in the breakdown of resistance to fatigue and infection. Sun exposure has a stimulating and beneficial effect on tissue health.

CONCLUSION

Our experience leads us to believe that metabolism is influenced in a qualitative sense by food, exercise, personality adjustment, and sun exposure. Improper balance among these or failure of one or more of them leads to fatigue, lowered resistance to infection, and to degeneration. This state is often the background on which many disease pictures arise and a proper conception of its causes leads to a rational plan on treatment.

DISCUSSION

Franklin R. Nuzum (Santa Barbara Cottage Hospital, Santa Barbara)—Doctor Langstroth has emphasized a new viewpoint in the etiology of many common disease processes. He has emphasized the role of improper diets, overeating, lack of exercise, faulty posture and mental stress in bringing about a lowered resistance to common infections such as coryza, sinusitis, migraine, "biliousness," and such degenerative diseases as arteriosclerosis and chronic kidney and heart diseases. He reminds us that the successful treatment of these conditions means not only symptomatic aid for the prominent complaint, but educating the patient in correcting those factors which have been primarily responsible for the difficulties.

Proper diets deserve special mention in a discussion such as this. Physicians generally have been loath to giving enough attention to the study of diets, but it is not difficult to recall that at bed rest it takes but 1000 calories per day to maintain the weight and body heat of an adult. If this man sits up but four hours per day, 1500 calories supplies these needs. For the average professional person 2200 to 2400 calories are sufficient to maintain his weight and to supply him with energy. The laborer requires 4000 to 4500 calories. A sufficient bulk in this diet to insure daily bowel movements may be obtained by fresh fruits or fruit juices and a fresh or cooked vegetable at each meal. By these food constituents the necessary vitamins and the mineral demands of the body are well supplied. An interesting experiment for one to try is to take two fairly comparable anemic individuals and give to one iron internally in the form of your pet prescription, and to add to the diet of the other a colored vegetable such as carrots. The increase in the per cent of hemoglobin in the second instance will convince you of the efficiency of the dietary method of treating anemia.

In addition to the fruits and vegetables that any normal diet should contain, attention should be paid to the carbohydrates, proteins, and fats. We frequently forget that in the processes of digestion 58 per cent of the proteins and 10 per cent of the fats are converted into sugar and used as such, in addition to all of the carbohydrates.

Evidence of a disturbed metabolism in such chronic conditions as arthritis and the degenerative heart, blood vessel, and kidney diseases is indicated by a study of the urine. A very high degree of urinary acidity is found to be present in these patients. It is not uncommon to find the urine of a chronic nephritic patient, for example, to be 1000 times as acid as the body fluids. Is it unreasonable to suppose that the kidney, which for years must stand the strain of excreting such acid products, finally develop degenerative changes as a result of this overwork? The highly acid urines are a result of eating acid diets—that is, diets that are largely made up of meats, fish, eggs, cereals, and bread. These acid articles should be balanced by foods which are alkaline in their reaction when metabolized in the body. These foods are the fruits, fresh and cooked, and include oranges, grapefruit, and lemons; the vegetables, and milk. Such a proper balancing of the diet results in the excretion of neutral or slightly alkaline urine.

For a long time the contention has been raised that the eating of protein (acid diets) is not responsible for the development of degenerative diseases such as arteriosclerosis and chronic nephritis, because it has not been reproduced in experimental animals. This objection no longer holds. Chronic nephritis in experimental animals has been obtained with acid diets by several investigators. I have myself obtained such results in over 100 animals by feeding diets high in protein (acid). And what is even more important, I have succeeded in obtaining an increased blood pressure in many of these animals. So far as I am aware this demonstration of increased blood pressure by "acid diets" has not heretofore been recorded. Now that these conditions have been obtained in experimental animals the objection will be raised that these are unnatural diets for these animals. The same may be said of the human animal. He has for a long time been living on a poorly balanced diet.

MORE ABOUT MIDWIVES

A recent official publication calls attention to the fact that, in the proud and modern city of Buffalo, 12,358 babies were born in 1923. Of these, 2340, or 18.94 per cent, were attended by midwives. Why? Buffalo is more than well supplied with educated physicians and hospitals, and many of the physicians are barely making a living.

What is going to happen when the federal and local "authorities" get these midwives "educated"? What is going to happen in California when ours are "educated" by a few "intensive courses" of a few days each?

Rosenow's Serum in Prevention of Paralysis in Anterior Poliomyelitis—During an epidemic of poliomyelitis in Omaha, Floyd Clarke and Andrew G. Dow (Journal A. M. A., August 9, 1924) had seventeen cases. All the patients received one or more injections of Rosenow's serum. In every instance when they were able to see the cases soon after onset, and an early diagnosis was possible, recovery was complete without paralysis.

EDITORIALS

DOING THE RIGHT THING IN THE WRONG WAY

(Read, approved, and ordered published by the Executive Committee of the C. M. A.)

Periodic medical examinations for everyone from birth to death ought to be a universal custom, *provided* that the examinations are thoroughly made by adequately educated physicians; *provided, further,* that written records of all these examinations be made and strictly limited in their placement to the physician's files, possibly with copies to patients or parents; *provided, further,* that the examination be thorough and followed up by remedial measures by the physician of the patient's choice and, *provided, further,* that due care be exercised to avoid pauperization of the well-to-do in the carrying out of this worthy work.

What should not be done is precisely what is being most extensively carried out in California now, particularly in the periodic examinations of young children. In this issue, and in former issues we review some of this work from many places. We will continue to give the news in future issues. Boards of public health, school authorities and other government agencies, as well as civic and welfare organizations, have been, and are rendering highly creditable services in conducting publicity campaigns urging people to have these examinations.

They go too far, however, when they enter the field of the practice of medicine themselves, either by conducting the examinations and making the diagnoses themselves—which is by far the most difficult work of physicians—or by employing physicians or inviting them in a way they can't afford to refuse to conduct their work in public free clinics for rich and poor alike. This is essentially a particularly vicious practical scheme of pauperization of those who can and should pay for personal service. It is an unjustifiable and repugnant use of public money, national, state and local, to employ it to attempt to place the practice of medicine upon a communistic basis.

All worthwhile physicians always have been and are now willing to do all the free and part pay service needed for any citizen of this state. They are doing all that is worthwhile now. They prefer to do this work in their offices, hospitals, legitimate medically controlled clinics, and through other medical channels. They deplore the evanescent ballyhoo clinics and other circus methods applied to this serious business of life. They realize that the stimulation aroused by ballyhoo methods in health circuses or what not is usually temporary in character, and that after the band has gone and the excitement has subsided, we find that the level of things well done is lower than it was before. They realize that one end-result of this sort of thing is detraction from the standing of medicine as a dignified science, and it also is a cause decreasing confidence in physicians as health advisors and medical practitioners.

That this is so is attested by letters from intelligent mothers to our service. Some of them say that we are unjust in some of our positions. Some of them say they never realized what ignorant old fogies their family physicians were until the neat modern doctors of the board of health and schools began to treat their children free in the clinics. Some say that they now rely upon the school nurses, public health nurses, and even teachers for medical advice with more confidence than they formerly gave to their family doctors. One recent letter highly praises the satisfactory services of a nurse in telling her what to do for her children. She says that the nurse always comes promptly and does not charge anything; that she formerly often found it difficult to find her doctor and then he often came very late.

Public health departments are for the most part—and should be entirely—in the hands of educated licensed physicians, but they should limit their activities to the legitimate and important specialty of public health. They all say, and truly, that success in public health work is determined by the extent of the co-operation of doctors engaged in the practice of personal health. Such health departments as those of Illinois, Ohio, Indiana, and other states refuse to enter the field of diagnosis and treatment of individuals by conducting clinics, or otherwise; except to furnish consultants in contagious diseases. They rely upon and easily secure the full co-operation of personal health practitioners upon this basis.

School departments have no business practicing either public health medicine or personal health medicine. They are, of course, incapable of doing either. They should call upon the public health authorities to practice and teach whatever of public health is needed, and they should call upon educated licensed practitioners of personal and private health for whatever of this service is needed in the teaching, prevention, or treatment of disease. They should have and, no doubt, would get all the co-operation they need by this method.

The nursing profession is as necessary as the medical profession among the agencies devoted to the betterment of health. Nurses should not engage in the practice of medicine. Few, if any, of them do in their private capacities, but some of them employed by non-medical groups and government bureaus are practicing medicine under incompetent direction. We readily grant the claim sometimes heard that nurses are better prepared to practice medicine than chiropractors and others, some of whom are licensed to practice. We will even go further and say that if anyone except fully educated physicians is to practice medicine, nurses are by far the most eligible group to choose from. It is our opinion that most nurses love their own profession, are proud of its record and standing, and find quite enough to do within the duties pre-eminently theirs without practicing medicine for which they would not claim to be fitted except under the instructions of employers. Teachers have enough responsibilities, in all reason, when they devote their lives to the dignified, necessary, and highly respected calling of teaching. Their smattering of knowledge about health and disease does not prepare them to either teach or practice personal or public health. Those with a high school

education would make just as much of a success and one comparable in its end-results by attempting to teach the intricacies of analytics and calculus.

None of us can teach effectively what we do not know thoroughly ourselves, and "a little learning" is as dangerous today as it was when it was first written.

A member of the council, in endorsing this editorial, adds this note: "A few years ago one of these uplift organizations held a baby show. A Cretin I had had on thyroid for a year took the first prize. This child had beautiful auburn hair, was bright and appeared in fine health, by casual examination. She would attract attention anywhere, but I am sure any competent physician would have been suspicious from the general appearances alone. The parents have since become eddyites, and the child is now a fat, stunted idiot."

QUININE ON PROTEIN METABOLISM

Among the most widely used drugs as a moderately efficient antipyretic and analgesic in the treatment of colds, headaches and neuralgias is quinine. For over sixty-six years the antipyretic action of the drug has been attributed to diminished heat production due to a direct depression of nitrogenous metabolism. In fact, this depressant action of quinine has been generally quoted in text-books of physiology and pharmacology as evidence of one of the mechanisms concerned in temperature regulation, namely, that of heat production; that is, anything that lessens heat production, such as the quinine depression of metabolism, lowers the temperature. Experimentally, this action has been made use of in studies of thyroid function, anaphylaxis, etc. Curiously, the marked influence of quinine upon nitrogen metabolism is without influence on oxidation. This paradox has led to the expression that oxidation is not the only source of heat; that heat may be liberated by other changes—e. g., splitting or hydration of nitrogenous molecules, in the course of which the nitrogen is converted to urea; and that it is these changes which are hindered by quinine. Now, however, we are assured by Hardikar of the Department of Pharmacology at the University of Edinburgh that the widely held conception of quinine as a metabolic depressant is all wrong.

From an extensive critical review of practically all the previous experimental and clinical work on the subject, Hardikar found that not a single one of the investigations contains acceptable evidence which would conclusively establish the depressant action of quinine on metabolism. Not satisfied with the results in the literature, he also made carefully controlled experiments on animals and human subjects over long periods, observing changes in the urinary excretion of total nitrogen, ammonia and creatinine by modern methods of chemical analysis. Experiments were also made with quinine in febrile and thyroid-fed dogs with the idea of determining the influence of the drug in conditions of artificially increased metabolism. The inhibitory influence on the hastened metamorphosis of thyroid-treated tadpoles was also observed. The results showed that 1.2 gm. per diem in the normal human subject, and in doses up to 50 mgm. per kilo in rabbits and dogs, had no influence upon nitrogen metabolism. Quinine hydrochloride in 1:10,000 concentration had no power to inhibit the action of thyroid on tadpoles. From these completely negative results, Hardikar concludes that quinine has no influence on protein metabolism even in doses which may be toxic in themselves.

Although the negative results of Hardikar, as far as they go, throw considerable doubt on the metabolic action of quinine, the results in febrile human subjects might be different, for after all the most striking effects of any antipyretic, including quinine, are seen in fever. Moreover, the antipyretic action might be exerted through some other mechanism besides the metabolism. In this connection, one is reminded that the quinine group (quinine, quinidine and other cinchona alkaloids) exerts important depressing influences on the circulation. These may occur with therapeutic doses which do not demonstrably reveal changes in blood pressure, etc. Is it possible that such circulatory changes bear a more important relation to the antipyretic action of quinine than any direct influence on the metabolism? A positive answer seems reasonable from the fact that the circulatory depression of such drugs as aconite and veratrum readily explains their antipyretic action. Clinical methods should assist in settling this proposition. Meantime quinine still remains a good antipyretic, and, if Hardikar's results are confirmed, other drugs reputed to influence the metabolism will need reinvestigation in order that their actions might be better understood.

Hardikar, S. W.: Journ. Pharm. Exp. Therap., 1924, 23: 395, "The Action of Quinine on Protein Metabolism, Respiratory Exchange, and Heat Function. I. Protein Metabolism."

ANOTHER HEALTH SURVEY COMBINED WITH A "DEMONSTRATION"

(Read, approved, and ordered published by the Executive Committee of the C. M. A.)

Elsewhere in this issue is published at the request of the American Child Health Association some matters that invite comment.

Various national organizations and combinations of these organizations, most of which have headquarters in New York, are undertaking and pushing forward by the usual means of publicity and otherwise, a vast movement not fully appreciated, we believe, even by themselves, and certainly not by the general working agencies in the broad field of medicine scattered over our country. Influential as some of these organizations, and particularly their associated conferences, are, they are evidently feeling the sting of adverse criticism that is piling up in ever-increasing amounts against some of their activities.

Readers will notice their answer to the criticism that they are leaders in a movement toward paternalism in medicine which is published elsewhere in this issue. That apology is worth reading carefully, worth pondering. They state that "whatever be the merits of state medicine, the Commonwealth Fund is not lending its influence to anything of the sort. It has no desire to interfere with the practice of private physicians." It is difficult for serious students of things medical to accept their denial because, for one reason, several of the officials and leaders of these organizations whose names are published on the back of the letter-head have at one time or another taken

active part in campaigns for compulsory health insurance. Some of their recent writings do not indicate that they have changed their attitudes. Notice that their denial states that there is no desire to interfere with the private practice of physicians. Of course not; there is no possibility of interfering with the *private practice* of physicians except to legislate them out of business, or legislate all their business into other hands. It *is* possible, and physicians should recognize this, to restrict the private physician's opportunities to such an extent that he will be limited to the *treatment* of disease only. That this is the object of certain movements is clear. That this is state medicine, socialized medicine, paternalism, or whatever one wishes to call it, there can, of course, be no doubt. Notice particularly the statement that no *remedial* work will be done. This definitely states, and the same thought is even more definitely stated in much of the literature being issued for the edification of the public, that the practice of medicine is *treatment*. Diagnosis, that most important of all the services which the physician renders, and the prevention of disease, are not the practice of medicine, but education, or something else, in their opinion. The campaign is obviously for the purpose of educating the people to believe that all the practicing physician does, and all that he is fit to do, is to *treat* such patients as cannot be induced to attend some free service. This only after some national organization or bureau of government has made his diagnosis for him, and has instituted all of the methods of prevention, and has given all the advice the patient needs, except that of craftsmanship of the surgeon and the employment of pharmaceuticals by the physician.

Read what they say they want to do. It includes all those things that we have educated and licensed physicians, health officers, nurses and other agencies of medicine to do. We are warranted in concluding that they want us to do it better, which is a very laudable sentiment we will all endorse. They assume that they are prepared to survey us and tell us how to do all these things.

Who are these self-appointed strangers who propose to come to California, or any other great state, assume leadership and outline and instruct physicians, public health officers and all others engaged in the service of better medicine? We are ready to admit that possibly some of them are qualified to make the claims of unusual ability about themselves that they do make. We do not believe that the majority of them merit their claims to leadership, either by superior education, superior experience or superior judgment over those of equal and better qualified men right in our own state. Some of the most harmful and disturbing antagonism against the forward movement of the better health campaign in California, and in some other states, for that matter, has been brought about by the hurried surveys, demonstrations, propaganda methods and other practices of the strangers who leave out many of the important things that should be included in their surveys, and have dwarfed, twisted and otherwise damaged a worthwhile movement.

California has three Class A medical schools, which have provision for and are carrying out graduate instruction and have trained public health and private practitioners who will compare favorably with the strangers who come in over night and tell us what to do, how to do it, and then leave. If we had to deal with only one group of them, we could possibly survive, but we are not through with one before another appears, to find the same facts and record the same things and tell us *their* way. We have already had several groups of these surveyors and demonstrators this year, and there are two of them in the state as this is written. If all of the surveys and recommendations that have been made for the edification of the "benighted" citizens of California during the last few weeks were put into manuscript form, they would make a stack at least ten feet in height.

Many classes of workers in the broad field of health resent the presumption of some of these nationalizers of health, and citizens in other walks of life suggest that it would be cheaper to employ a few of them permanently than to directly or indirectly pay for so many expensive junketing trips, for large groups of them. The article in question says "special consideration will be given to health teaching in the schools, for it is believed that the solutions of health problems for individual, community and nation rest upon the teaching of health in our schools." We already know that. The problem is receiving serious attention by many of our own agencies, and progress is being made. Health teaching is not even limited to school children, but is extended also to other citizens. We are even engaged in an attempt to settle the problem of who shall do this teaching; what they shall teach. About these two questions there are differences of opinion among people, including those of New York. We feel like saying to these various groups who are angling for invitation from California to come out and tell us what to do that if they will first permanently settle any health problem in their own jurisdiction, and even within their own city, to the satisfaction of thinking people, then we will ask them to come out here at our expense and settle it for us.

California and Western Medicine is suffering no illusions about the possible effectiveness of any opposition which we can institute against any of these movements. They are too well promoted, too well financed and are carried forward by too many high-salaried persons who have nothing else to do but promote organizations and movements which, when once started, they expect the government to continue while, at the same time, they deny that they are for paternalism in health, education or social welfare. They are making progress and will continue to do so unless they have a row among themselves, which might happen at any time.

Some of our cities already have entered the contest to secure this latest survey and demonstration, and others no doubt will do so.

LONG BEACH "COMMUNITY" HOSPITAL

(Read, approved, and ordered published by the Executive Committee of the C. M. A.)

Singing and a few other harmless diversions can be placed upon a "community" basis. Even here, discordant notes are often the outstanding feature of the "music" as a bystander observes it. In any serious, progressive attempt to molecularize a community, the atoms in the molecule become so active that they destroy the hand-made molecule and some of the atoms. This is being exemplified in the history of "community hospitals."

It is no more possible to establish and operate successfully a "community hospital" than it is a "community religion," "community banking," "community merchandising" or any other worthwhile movement which requires for its success a firmly fixed common denominator upon which all citizens are willing to take their stand and keep standing.

We should not forget that our whole structure of civilization, governmental and otherwise, has been built and stands upon the unit of the individual citizen. The furthest we can depart from this unit successfully is by grouping *similars*. This upon such bases as religious, financial, moral, social, educational and health similars. When we enlarge our groupings to include dissimilars, we immediately have strife, which must be controlled by force or disintegration results. Yet this is precisely what so many people are trying to do with "community" this of that, including hospitals.

With hospitals, which concern us primarily in this instance, it never has been done, and there is no available evidence or intelligent prophecies to show that it is likely ever to be done while human nature remains as it has been for some ages.

The greatest single problem in successfully promoting and conducting a good, progressive hospital is to bring together enough similars in elements essential to such a complex human service station to produce the high character of team work required. For example, it is difficult enough, in all conscience, to bring together so they will do team work in essential harmony a staff of adequately educated physicians who have been trained by the same or similar teachers for years. To even attempt to go further and include osteopaths, chiropractors, mental healers, and other insufficiently educated persons, upon an equal status is, of course, the height of folly. Similar situations apply forcibly in others of the essential departments and services of a good hospital.

In spite of the several failures in thus attempting the impossible, to be found in places in California and elsewhere, our people continue to make the experiment. The pathetic spectacle of the happenings at Whittier hospital in Los Angeles county are of that type, and were discussed recently in CALIFORNIA AND WESTERN MEDICINE.

LONG BEACH

Now comes another example from Long Beach. Speaking from the angle of normal zoning flow of people, this city of 200,000 persons has Seaside Hospital, with 150 beds, and St. Mary's Hospital, of 100 beds; both good hospitals. Some years ago a movement was started to build and operate a community hospital. After much hard work by persons, many of whose motives were highly commendable, a hospital building was finally erected on city property, paid for partly by tax money, partly by private philanthropy, and partly by public subscription in the form of stock certificates. As the building approached completion, the organizers became concerned with the methods of management, financing, staffing, and other fundamental problems of policy that should have been settled before a dollar of money was accepted or spent.

One of the first things that happened to them (as they were warned when the proposition first began to take shape would happen) was, that doctors, nurses and others adequately educated for their several responsibilities in medical and hospital work, offered their assistance and co-operation only on condition that the hospital be conducted as an agency of scientific medicine along approved and well-known lines. It was also discovered not only that these professionals meant exactly what they said, but that any other policy would make it impossible for the hospital to operate a legally accredited school of nursing, and that they could not receive an accredited rating by the American Medical Association or any of the several other accrediting agencies which distinguish hospitals operated as agencies of scientific medicine from others.

The osteopaths, chiropractors and other groups of "licensed" and unlicensed healers by special methods and many of their clients and followers got under way with the usual cry of discrimination; medical trust; abusing the under-dog; the right of everyone to have the "doctor" of his choice serve him anywhere he wants to call him, etc.

After much discussion, in which the committee representing the American Medical Association and our California organizations in hospital betterment was called in, the Long Beach city council leased the hospital to a hospital association, thus giving to the officers of that association the power to fix policies and otherwise conduct the hospital. The lessees, under the able and conscientious leadership of Mr. Fillmore Condit, promptly pledged themselves and the hospital to the cause of scientific medicine. This was a difficult and splendid thing for a group of citizens—all laymen and some of them in positions to be affected by political manipulations—to do.

The problem may or may not be permanently settled. The osteopaths and chiropractors are well organized, and they undoubtedly will do all they can to throw the hospital wide open and thus convert it into a cult hospital. This is what will happen if they should succeed, because educated physicians, nurses and others who adhere to no sect or dogma and who consider themselves followers and practitioners of science wherever she may lead and who will employ whatever tools she fashions for the betterment of health, will not connubiate with those less qualified to serve.

THE SITUATION HOPEFUL

All who believe in adequate education as a basis—the only safe, sane basis—upon which much rest the

authority to practice the prevention and treatment of disease, have reason to be optimistic by reason of the following authorized interview by Mr. Condit, head of the association which now controls the hospital. Mr. Condit's interview, which has been published in the public press, is quoted in full because it is so eminently sane and unusual in the method of approach.

CONDIT REPLIES TO COMPLAINTS

"Replying to numerous complaints against the action of the directors of the new Community Hospital Association in making it a 'standardized' hospital, for use only of medical doctors, Councilman Fillmore Condit has issued the following statement:

"Editor Telegram: The Osteopathic Association of our city asks:

" 'Shall the hospital, which is owned and tax supported by all citizens, be used by all citizens?'

"The answer is: As patients, yes; but as cook, engineer, superintendent, nurses, doctors, no.

"All citizens of Long Beach may enjoy its parks, band or library, but all citizens may not be city manager, band leader or librarian.

"During the World War thousands of good people offered their services as doctors and nurses to care for the sick and wounded. Among those who offered to serve there was found a vast variety of trained ability, inexperience and ignorance.

"From this time and condition the imperative need for 'standardization' for doctors, nurses and hospitals arose. It increased and spread until it is now the rule in all hospitals under national control, in all universities having medical departments, is the policy of over 90 per cent of all the hospitals of our entire nation and those who adhere to standardization have charge of all health boards, national, state and municipal.

" 'Standardized' hospitals attract the most distinguished and successful physicians and surgeons; lack of standardization tends toward low reputation, mediocrity.

"If our Community Hospital discards the policy used by the most successful hospitals in America, what rule shall it adopt?

"The leading osteopaths of this city express their emphatic disapproval of an important rival school and admit that 'opening our hospital to all doctors would ruin it.'

Osteopathic doctors have little use for hospitals for their patients, and not over 5 per cent of the hospital patients of our land are cared for by them.

"An osteopathic hospital of thirty beds, located in Denver, 1600 miles away, advertises in Long Beach for patients.

"We regret medical disagreements, but if doctors of different schools are averse to working together in the same building, 'the greatest good to the greatest number' seems to justify the medical policy adopted by our Community Hospital.

"We regret if any of our people seem more concerned in our hospital as a battleground for professional quarrels than as a haven for human welfare

"COMMUNITY HOSPITAL ASSOCIATION.
"By Fillmore Condit."

SHORT-SIGHTED PUBLIC HEALTH POLICIES

(Read, approved, and ordered published by the Executive Committee of the C. M. A.)

Physicians and physicians' organizations are loath to criticize official public health departments, which they rightfully regard as one of the several legitimate specialties of medicine. Many worthy members of the California Medical Association are practicing the medical specialty of public health. Some of them are, and more should be, engaged exclusively in this work. It is just as important, useful, and commendable as is the practice of any other medical specialty.

Most practitioners of this specialty still combine their public health work with other features of general or special practice. They all realize that this should not be so, but they must live, and the part-time wages of from $10 to $50 a month is still the only compensation offered by the majority of public health units in California.

It is difficult to secure adequately educated physicians for "full-time" public health work also, because the salaries in the vast majority of centers are still hopelessly inadequate. Tenure of office also always rests in the lap of the political gods, and this work is, therefore, correctly interpreted as an extra hazardous vocation. Obviously, compensation for such "full-time" work must be by what is politely called salary, but which would be more accurately termed wages. Naturally, under the hazards of tenure of office and poor pay, it is hard to find educated physicians with so little dignity, self-respect or lack of ambition that they are willing to exchange the prospects of private practice, however poor, with a reasonable amount of personal independence, for a poorly paid, uncertain, political job where often they hardly dare call their souls their own.

So few educated California physicians are willing to make the miserable and inexcusable sacrifies they are asked to make that, to fill the few "full-time" public health positions available in this state, the state public health authorities have had to import people. People of this class do not always fit into normal situations. Some of them have curious ideals or they are forced to accept curious dictation. Some of them have not bothered to take out state licenses to practice in California. Our laws are certainly generous enough in this respect. These people are all practicing medicine, and no one can quarrel with those who wonder if these imported "full-time" health officers are deliberately defying the law or whether they are not able to qualify.

Certainly, some of them have curious ideas of their duties, limitations, and privileges. Some of them apparently feel that, so long as they have their county supervisors with them and are backed by a great private foundation located in New York, *which pays part of their salaries,* they can insult their colleagues in other branches of medicine with impunity. The reaction against this sort of thing is springing up strong in many places in our country, and it is becoming acute in places in California. A recent example is explained in the following resolution passed unanimously at a recent meeting of the Monterey County Medical Society:

"Whereas, It has been brought to the notice of the

members of the Monterey County Medical Society that a proposition has been made that all children in Monterey County, between the ages of 5 and 12 years, be given toxin antitoxin to protect them from diphtheria,

"Resolved, That the plan of giving toxin antitoxin to all children in Monterey County is unscientific and unnecessary, because proper tests have shown that about 40 per cent of the children are immune and will not contract the disease, diphtheria, from exposure.

"Resolved, That since the California Medical Association has unanimously voted that every doctor's office is a health center for anyone who may want treatment for anything, and that the Monterey County Medical Society has endorsed this plan unanimously, be it further

"Resolved, There is no reason why those who are able to pay for this work should be taken to a public health office or public health nurse to have the work done gratuitously; and be it further

"Resolved, That any child whose parents wish this protection can receive the same from his own family physician without charge, if the expense would be a burden on the family."

Gentlemen of the Board of Supervisors of Monterey County; gentlemen of the Rockefeller Foundation who pay part of the salary of a full-time, unlicensed public health officer, may we suggest that the unfolding plan, of pauperizing our citizens by "free clinics" for everyone and wholesale inoculation of children along unscientific lines, is resented as unwarranted, unnecessary, and dangerous to the progress of public health, which we all want to see go forward?

A councilor in approving this editorial adds the following note: "I do not approve of full-time health officers. I was health officer of —— for eight years; was 'fired' because I would not go on full time. An examination was held and I was one of the examiners. An enthusiast who passed with a high mark, but had been a failure in general practice, was appointed. During the next year he had several rows with the city governing authorities, got the health department in a bad muddle, and was finally gotten rid of, although his position was under Civil Service. Men who will take these 'poorly paid, uncertain political jobs' are not likely to be of a temperament to appreciate the aims of progressive organized medicine. I believe a successful practitioner makes as good an executive, is more independent of salary, and will work better in sympathy with his fellow-physicians."

CALLING THE ROLL ON ETHICS

(Read, approved, and ordered published by the Executive Committee of the C. M. A.)

The question of the invasion of hospital staffs and the practice of medicine in hospitals by cultists has become very acute in California as a result of the initiative law permitting certain classes of people to license themselves to practice medicine. All physicians know, of course, that the League for the Conservation of Public health has been very active for several years in its hospital work, anticipating this very problem.

Certainly the ethics of the medical profession have not been changed as a result of the California elections which give groups of inadequately educated people authority to license themselves to practice medicine. Medical ethics do not permit of any recognition of cultists—licensed or unlicensed—either by individual physicians or by any contact with them in hospitals or elsewhere. There are some few physicians who have been and are violating their ethics in their personal practices and who have been conniving with cultists in such hospitals as were suitable for that purpose.

The time has arrived when the California Medical Association must go on record emphatically and positively for the good of scientific medicine. In answer to a specific request from the Stanislaus County Medical Society for a ruling, the Council unanimously passed at its 136th meeting the following:

"Resolved, That the ethics of the medical profession is a moral code, devised for the conduct of physicians in their relations with each other, with hospitals, other medical agencies, and with the public. It is the unanimous ruling of the Council of the California Medical Association that physicians shall live up fully to the spirit and letter of our ethics now as in the past. In particular, it is unethical for an educated physician—holding a degree of doctor of medicine from an acceptable institution of learning, and licensed to practice medicine and surgery or any of the specialties in California—to recognize in any way so-called 'doctors' of educational standards less than, or materially different from, those required for membership in a county medical society. So far as the medical profession is concerned, this same interpretation of ethics as applied to physicians is applied to hospitals. It is unethical, except under conditions of emergency, for a member of the California Medical Association to permit his name on the staff of a hospital that does not apply this interpretation of ethics to the institution. And it is furthermore unethical for members and ethical physicians to patronize hospitals that permit persons ineligible for membership in the California Medical Association to practice in the hospital or any of its departments."

What answer do you give yourself about this when your conscience calls the roll? How do you rate your colleagues and how do you suppose they are rating you in the retrospective hours at the close of the day?

THE TREATMENT OF MENTAL DISEASES AND DEFICIENCIES

(Read, approved, and ordered published by the Executive Committee of the C. M. A.)

Articles both by physicians and non-medical writers, calculated to arouse public interest in the treatment of mental diseases, are appearing in a number of publications. Some of these articles are decidedly of value, others are worse than useless because they show a lack of knowledge or the vision necessary to cope with so important a subject. We all need more enlightenment upon this subject, and it is to be hoped that the publication of informative, analytical, and constructive articles will continue until the public is aroused to a point that will force better care for these patients than they are now receiving.

Physicians have been insisting for years that psychiatry was as much a medical subject as appendicitis; that many mental deficiencies and diseases had their basis in, or were markedly influenced by, associated physical diseases; that a considerable number of mentally diseased patients could and ought to be cured, and that every chance of recovery should be given to all of them. Physicians have been pointing out that the vast majority of mentally ill patients were not given any such opportunity. Many of the hospitals for this class of patients are little more

than polite prisons where the inmates are given "custodial" care, and routine medical and nursing attention. Adequate facilities and competent personnel to render the service every mentally sick or defective person should have in diagnosis and treatment are found in but a very few places.

If the public can be informed of the actual situation and a practicable program placed before them, it is certain to lead to better care of these patients in better hospitals, better equipped for good work and personneled by better trained psychiatrists and other physicians. Numerous articles are emphasizing physical diseases as frequent causes, in part or entirely, of many mental diseases. However, not all psychiatrists by any means follow Cotton and his colleagues entirely in their enthusiasm in believing that the correction of physical disabilities is followed so frequently by the disappearance of mental disease in the same patient.

There are numerous institutions in different states, says one medical reviewer, which have been thoroughly revolutionized as regards ordinary treatment of insane patients. There are also many others in which there is no serious lack of up-to-date intelligence at the directing center, but in which improvements have lagged because of bad politics and of an uninstructed public opinion. A great number of these institutions scattered over the country have been inferior in their personnel as a whole. It has been found much more difficult to provide good assistant physicians, good nurses, and good attendants of lower grade in hospitals for the insane than in large general hospitals for the treatment of ordinary diseases. It requires not only strong professional leadership, but also improved political conditions and an enlightened public opinion to secure from our state legislatures the appropriations necessary to provide the right kind of hospitals and equipment, and to employ superior professional talent together with trustworthy employes of non-professional grades. This general observation applies to prisons, reformatories, and other public institutions almost as truly as to hospitals for the mentally ill.

It is the business of the state to do as well as possible the things that it undertakes to do at all, in our prisons and hospitals. It was the old-fashioned view that insanity inflicted a terrible disgrace upon the individual and the family, and implied a taint that was transmitted and that could hardly be eradicated. The tendency was to conceal cases of insanity rather than to bring them forward instantly for thorough diagnosis and for hopeful treatment. Hope is a valuable factor in all the affairs of life, and it is exceptionally important in relation to an affair so sad as mental disorder.

There are few non-medically educated persons whose training is thorough enough to make their views upon these strictly professional controversies of any philosophical or scientific value. But any intelligent citizen may grasp certain practical considerations, while the philosophers and scientists disagree. *It is for the service-loving citizen to demand that in the care of the wards of the state in its hospitals and other institutions there should be medical efficiency and up-to-date management.*

TALKERS AND WORKERS

Under this heading the Saturday Evening Post of May 31, 1924, publishes an editorial which has had such a remarkable appeal to a number of our members who are "carrying the ball" in our own medical organization that they have prevailed upon your editor to reproduce it:

"All organizations must have bosses—that is, people who are on the job 365 days a year. If an organization is large enough, and in addition powerful and prosperous, the bosses are known to the lazy armchair critics as inside or vested interests. If it is a small concern, like the men's brotherhood of the First Methodist Church or the local social club, the indispensable chairman of the entertainment or house committee is not termed a vested interest but is merely criticized without bouquets of any kind.

Someone must control the Republican party, the Smithtown Gulf Club, Harvard University, the Men's Social Club of Kokopee, and the United States Steel Corporation. The old clique which is now in control is charged, and no doubt justly, with passing the jobs around to the boys on the inside. Once in a while an indignant electorate or membership or group of investors throws out the inside bunch and a new deal is started. All organizations will die of dry rot if no new blood comes in, and there are times when only a surgical operation makes such assistance possible.

But analyze any organization and see what you find. Usually the insiders are there because they are interested, reasonably experienced and willing to give of their time. Nearly all the critics on the outside either lack experience and knowledge or will not give up other occupations. Most of the critics will not even attend the annual meetings if there happens to be a good movie on that night. Indeed, they will not even fill out a return postal card to the extent of running a pencil through the line that reads "I will attend the meeting." But the next time they enter the club, how they do pan the house committee for the way the pictures are hung!

It is fashionable in certain quarters to say that the great universities are run by vested and capitalistic interests, and to imply thereby that these institutions of learning cannot amount to much. A study of one such university shows that to all intents and purposes it is run by four men.

The reasons these four men exert so much influence are simple in the extreme. In the first place, they live rather close and are thus in a better position than many others to attend meetings. In the second place, they are so interested in the work that they are willing to sacrifice business, professional and personal interests to attend all committee meetings. Such willingness is not a matter of wealth, but of personal inclination. Two of the four happen to be wealthy; the other two are not. In the third and last place, before these men came to dominate the situation they had had experience and training on minor committees, and showed their interests in these details. Such a rule has exceptions, but, generally speaking, the inside interests are inside because they are willing to take the trouble and do the hard work, while the people on the outside are willing only to knock."—Reprinted by permission of the Saturday Evening Post. Copyright 1924 by the Curtis Publishing Company.

Bully! And it fits almost all sorts of organizations AND includes all sorts of "workers" AND most classes of "talkers."

There are two classes of "talkers" who are not specifically mentioned in the editorial to whom we would nevertheless commend its import: One group is made up of those who dash off their libelous opinions in letters and sign them. This is dangerous business. It must be an awful blow to the

vanity of a "talker" who maliciously and libelously criticizes a "worker" in a letter to a pal—male or female—to have that pal turn it over to the worker concerned. Such a letter in a worker's hands is an effective and permanent bloc. It is, of course, more if he cares to make it so.

However, sometimes "talkers"' foregather in public places and, without bothering to see who is close enough to hear, proceed to outline their destructive plans.

Old experienced "talkers," when they are operating on "high," usually seek a secluded spot, where the light is not too bright, and whisper.

As we were saying, the editorial is fine, and it will do us all good, whether "talkers" or "workers," to read and ponder it.

REPRODUCING EDITORIALS

It is not to be expected that more than a few of the physicians in any center are going to take the trouble to examine more than a very few medical journals. Only those located conveniently to medical libraries have the opportunity to do wide medical journal reading, even if they wished.

The editor of California and Western Medicine always has felt that a great deal of worthwhile discussion of subjects important to physicians, particularly that found in editorials, should have wider distribution. Following out this policy, many editorials, editorial comment, reports of committees, abstracts, proceedings of various special organizations, and similar matter, has been, and is being republished in California and Western Medicine, always, of course, giving due credit.

That several other editors, both of medical and more general publications, and even newspapers, have the same idea is attested by the wide reproduction and abstracts from California and Western Medicine editorials now brought to us by press-clipping services.

If you have what you believe to be good editorial matter or information from which editorials should be prepared, please send it in. Both the ideas and the material for many of the editorials now running in California and Western Medicine, and some of the several now in the hands of the executive committee for consideration and censorship if need be before publication, have been supplied by an ever-widening circle of members who are sincerely interested in making C. and W. M. serve its purpose more thoroughly and wisely.

INDUSTRIAL INSURANCE CARRIERS ESTABLISHING THEIR OWN MEDICAL SOCIETIES

(Read, approved and ordered published by the Executive Committee of the C. M. A.)

There is much that should be interesting, illuminating, and of prognostic value to physicians in the rapidly growing custom of industrial accident carriers in promoting and operating their own clinics. The custom has become more general in Philadelphia than elsewhere, but it is spreading over wide areas. In these "service stations" doctors, nurses, and others work on a small salary, a small commission, or both.

Development in the whole field of industrial medicine is headed in many wrong directions in California. A few members now seem to think that the moral code of ethics should have waivers put into it to allow them to meet the "peculiarities" of this branch of medicine. A cursory examination of the constitution and by-laws of the California Medical Association and the American Medical Association should be convincing that there is not a chance that such modifications will be made. There is nothing irksome in the moral code to which physicians must subscribe and hold inviolate, so long as they are ethical members of a great humanitarian profession.

It is true that there are physicians practicing industrial medicine, and other branches for that matter, who had their fingers crossed when they subscribed to the principles of ethics, and a few of them have long since repudiated these principles and are operating openly as free lances. To all such, we commend the code of chiropractors and other cultists.

C. M. A. DIRECTORY

Members of the C. M. A. are reminded that authority was given the last annual meeting for the officers and executive committee of the society to prepare and issue a directory of the members of the state organization. This listing is to be arranged alphabetically by counties.

County societies that wish reprints of their section only for distribution in local communities may secure there reprints by taking the matter up with the secretary of the C. M. A. This directory is now in course of preparation.

Caution—This directory must not be confused, as is apparently being done in the minds of some members, with other so-called directories of physicians and surgeons of the cities and counties of the state of California. Private directories are not under control of the organized medical profession, and none of them has been endorsed by the California Medical Association, regardless of whatever statements may be made by salesmen of these commercial directories.

Simplicity—"What a blessing is simplicity. And what a tenfold blessing it would be if simplicity were a part of medical thought and education," says an editorial in Colorado Medicine. "We could better understand ourselves if we forgot our jargon and abracadabras and learned directness in thought and simplicity in expression. Surely there is spurious learning when we speak of 'dorsal decubitus.' The medical dictionary defines 'dorsal decubitus' as 'recumbency in the supine position,' and the ordinary reader then needs another dictionary to learn that 'recumbency in the supine position' is 'lying on the back.' This by way of illustration.

"Medical thought and writings are clogged by an accepted style of expression in which words dress themselves up and assume dignities, and bow stifly and severely, and refuse recognition. The result is that when Doc really wants to say something, he doesn't know the language. He may attempt to explain to his friends or to a popular audience, but he finds himself too ignorant to do it."

Medicine in the Public Press

Will Humanity Get Rid of Sleep?—Some doctors of more or less prominence are gaining unenviable notoriety for themselves because of loose and spectacular statements about health matters. They do not always give out authorized interviews to the press. They are too clever for that. They make ambiguous statements before medical gatherings and permit their press agents to interpret these statements to the press in a spectacular manner.

One of the best recent examples of this is the extensively quoted and editorialized statement that the doctors will soon be able to do away with the necessity for sleep. Of course, these doctors did not make such a statement, but they did make statements that lent themselves to the interpretation the press put upon them.

For shame! Some of our so-called leaders seem to have lost their power of discriminating between notoriety and fame.

The Physical Basis of Disease—Under this caption a writer using the pen name of "The Research Worker, Stanford University," contributes a most interesting, entertaining and thought-provoking article to the Scientific Monthly. The article is a purported conversation between travelers in a Pullman smoker.

"The responsibility (for confusion in health matters) rests with the general public. Any garage that treated all broken cars by massaging the rear tire would go bankrupt. The public has sufficient knowledge of automobiles to realize the absurdity of such a method. At some time, some car owner may possibly have thawed out his radiator with a hot-water bottle. He might possibly be induced to write a testimonial endorsing the hot-water bottle method. But no business man would spend hundreds of thousands of dollars in manufacturing a special automobile hot-water bottle, in the expectation of selling thousands of these bottles to car owners for the treatment of all automobile troubles. The public, however, liberally supports hundreds of equally absurd medical devices."

"It's good business," said the manufacturer, "to give the public what it wants."

"I doubt if it's a good business policy in medicine. Hundreds of thousands of preventable deaths are caused by this policy. The economic loss is millions of dollars annually. This is eventually a drain on all legitimate business."

"There are adequate laws governing medical fakes," said the lawyer.

"The laws are neither intelligent, adequate nor well enforced. They never will be till the general public has sufficient knowledge of fundamental facts to intelligently judge medical claims."

"In the first place," said the research worker, "is there any one group of facts on which all physicians agree and which all practitioners must understand and use, no matter to what school of medicine they belong? There is such a group of facts in automobile repairing. Mechanics differ in methods, skill and efficiency in locating trouble and making repairs, but they all base their methods on an understanding of the physical nature of automobile trouble. A short circuit, a leaky valve, a cracked cylinder, deposit from inferior oil or gasoline. There is an equally fundamental group of facts in the human repair business."

"Suppose a physician doesn't accept these facts," said the lawyer.

"If a mechanic didn't believe in the existence of a short circuit, would you employ him to fix your car? His disbelief stamps him at once as incompetent. A short circuit is a fundamental mechanical fact. There are equally fundamental biological facts in human disease.

The "research worker" then gives a fascinating story of the structural defects and their influence in producing disease.

Chiropractic Certificate of Illness—On the letterhead of ———, D. C., and several other initials we do not pretend to understand, we have a certificate of illness (forwarded us by a member), which reads as follows:

"To Whom It may Concern—Mrs. ——— has been under my care since May 22-24, a depleted physical condition. To my personal knowledge I know that during her absence from work it was wholy do to her Physical inability."

Los Angeles County Public Health Department Establishing a Bureau for the Care of Pre-school Age Children—According to press dispatches, a county health bureau under the direction of the county health officer, with a primary purpose of caring for and improving the health of young children, shortly may be formed as a result of negotiations pending between the health officer and the Metropolitan Life Insurance Company. The news dispatches quote Lee K. Frankel, medical director of the local welfare bureau of the insurance company, as being sponsor of this movement. The press dispatches were forwarded to Doctor Fleisher and his comment invited. In his reply he states: "These articles greatly exaggerate the work we are doing. We have not suggested a movement of this type."

Chiropractors' Dilemma—When the chiropractors passed the initiative authorizing themselves to license themselves to practice medicine in California, they made the law too good. Among other provisions, in order to become a member of the chiropractors licensing board, the chiropractor must have practiced his dogma for at least three years **legally** in California. There were no legalized chiropractors in the state, so after a lot of wrangling, the Governor appointed a board of chiropractors who were licensed as drugless practitioners, and they began to function. Suit was brought, and the courts questioned the legality of this board, and they were ousted by a decision of the Supreme Court of the state. Recently the Governor has appointed another board made up of licentiates licensed by the first illegally constituted board. There will be another fine point to determine whether chiropractors licensed by an illegal board are actually licensed. One thing is certain: they are still far from the law which says they shall be licensed for at least three years. In any event, it is a fine mess.

The Governor is quoted as saying, in making his appointments: "I have appointed a board which is representative of the various chiropractic factions of the state, and all the men appointed have the necessary educational and professional qualifications. They represent different schools of chiropractics as the law requires, and are licentiates.

"The law limited me to persons who had been licensed by the first board, and no other persons could be considered. I believe this board will function to the best interests of the profession."'

This new board consists of J. K. Gilkerson, Glendale; H. D. McFarland, Los Angeles; W. W. Tait, Berkeley; James Compton, Oakland; Wilfrid Clayton, San Francisco.

Should Dirty Medical Linen be Washed in Public?—The shortcomings of physicians are better known to physicians, of course, than they are to anyone else. There are plenty of them, and one of the efforts of

the whole profession is to reduce them as much as possible and as consistently as possible.

Since the campaign for educating everybody in health has gotten under way, a great many physicians seem to forget that there is no way of limiting the printed word to that part of the public they would like to have read any special message. Some of the things published by physicians, and even by medical organizations, are doing a great deal of harm to the cause we should all espouse. Some of the printed statements, ostensibly intended solely for physicians, attract the attention of public press editors and thus give to the writer a notoriety that he could not otherwise obtain and which, unfortunately, is sometimes looked upon by him as fame. Statements made by the most honest physicians, and with the most laudable purposes, when they get into print are liable to be utilized in ways that embarrass the physician and the profession to which he belongs.

One of the best examples of this is seen in a recent popular magazine which has millions of readers. The article, read by a physician and published in a medical journal, was abstracted in a way to reflect adversely upon physicians everywhere. In these abstracts are quoted some such statements as the following: "The well-trained doctor of medicine should be able to acquire the technique of spinal 'adjustments' and other manipulative procedures at the expense of very little time or effort. **If the public is going to continue to demand that sort of thing, then there can be no great harm in supplying it.** By refusing to do so, the profession is calling down upon its head undeserved epithets."

The reaction that many readers get from this is that the medical profession should sell the kind of services the public wants, regardless of whether they are right or wrong. We do not believe that one physician in 1000 will endorse statements like the one quoted, and we are convinced that at least 75 per cent will condemn in measured terms, statements suggesting such dangerous sentiments.

Dietetics and Medical Schools — P. M. Lovell, N. D., writes in the Los Angeles Times, in discussing dietetics in medical schools that the drugless practitioners are better educated in "natural diet" than are physicians. This because the drugless schools make a specialty of teaching diet, while the medical schools do not. "What they do teach," says this author, "is confined to unscientific calory theories, 'balanced rations,' and metabolism tests. Natural diet is utterly foreign to their curriculum."

"But, doctor, is it not true that the number of hours that the medical man spends in school is greater than that of the drugless physician?"

"True! but most of his work is spent in the study of disease so that he is not very familiar with the phenomena of health."

"As I write this article I have before me the 1923-24 catalogue of a Class A medical school of California. This medical school belongs to one of the finest universities in this country, and is thoroughly representative of the most approved of the A. M. A. schools. To get into this medical school one must have a high-school diploma showing four years' work. Then one must complete three years of preliminary preparation before being permitted to enter the school. The medical course itself consists of five years' work. Of the entire total of five school years in which every conceivable medical subject is taught, there is a total of twenty-four hours of dietetic lectures given.

"Think of it! Over 5000 hours spent on every conceivable subject apropos to disease, and a total of twenty-four hours spent in the study of the foundation science of physical health—dietetics. Is it any wonder, trained as he is, that the orthodox medical doctor, governing great hospitals and sanitoria, gives such colossally stupid dietetic advice as is embraced in modern nutritional theories."

Chiropractors Plan Health Education Campaign—What the press quotes as the Southern California branch of the University of California association of chiropractors held a meeting in San Diego recently, and decided to enter the game of educating the public in health maters. Their first objective is to clarify the definition of chiropractic so that there may be no misunderstanding between the chiropractors and the seekers after health. "Honest advertising" will be another method to separate a class of pseudos from actual chiropractors. "This will help to clean the chiropractic house of those who are using chiropractic as a graft."

The E. R. A. Bubble Explodes—The investigation of Abrams' methods, which has been under way by the Scientific American for over a year, is nearing its close. In the August issue the editor says that: "This will bring 'Our Abrams Investigation' to what we regard as a highly successful end. We went into it hoping that we might be able to give our endorsement to the electronic system, hoping that we might find it to be a major development of twentieth century science, fully prepared for the necessity of heralding it to the world as such. When **we find that the facts lead us merely to an exposure of the greatest single piece of organized quackery in the history of medicine,** however, we feel that our service to the community in so reporting is as large as though the outcome had been that which, a priori, was the more to be desired."

Gland Transplantation Rejuvenates—According to press reports, Dr. Stanley claims only a negligible percentage of failures in his 200 patients rejuvenated by gland transplantations. The statement was made, says the report, in a lecture before the students attending the summer session of the University of California. The thought is offered that wide publicity of the enormous prevalence of sexual impotence in California is liable to counteract somewhat the more constructive advertising of our climate and other tourist-drawing virtues.

A Projected Innovation in Nursing Education—According to press dispatches, the Southern Branch of the University of California and the Los Angeles County Health Department are co-operating to establish "a field-work school of nursing." Preliminary announcements regarding this project state that students of nursing will receive their theoretical and academy instruction in the university and the practical experience under the auspices of the county health department. Among the subjects to be stressed during the students' "intern" nursing service are, "prenatal, infants, child, pre-school, school, and communicable diseases nursing." Chief Nurse Simpson, the head of the school, is quoted as having said that the theories of nursing will be taught in the regular university semesters in the future instead of only in the summer sessions as in the past.

"Doctor" W. A. Lampe—One "Dr." W. A. Lampe, "feature specialist," was called by the defense in the trial of Mrs. Grace Baratti as an expert in gunshot wounds in the head. Agents of the Board of Medical Examiners, after investigation, arrested Lampe for practicing medicine without a license. According to press reports, this "doctor's" "only experience with gunshot wounds was that he shot himself in the head some fifteen years ago, and that the bullet still lodges in the brain." He claimed that he had practiced cosmetic surgery in San Francisco for twenty years. 'Tis said that the mills of the gods grind slowly, but surely they are more speedy than those of the law.

California Medical Association

GRANVILLE MacGOWAN, M. D., Los Angeles..President
EDWARD N. EWER, M. D., Oakland.....President-elect
EMMA W. POPE, M. D., San Francisco.....Secretary

California's Representation in the House of Delegates of the A. M. A.—The following letter has been received by Doctor Emma W. Pope, secretary of the C. M. A., from Doctor Olin West, secretary of the A. M. A.:

"At the recent annual session of the House of Delegates of the American Medical Association, the triennial apportionment of delegates from constituent state and territorial associations was effected on the basis of one delegate for each 950 members or fraction thereof.

"Since the California Medical Association on April 1, 1924, had 3929 members, as shown by the records in this office on that date, the California Medical Association will be entitled to five delegates to the American Medical Association in 1925.

"It is quite probable that a new apportionment of delegates will be made next year as a proposed amendment to the Constitution and By-Laws, whereby the voting membership of the House of Delegates will be increased, is now pending."

REPORT OF DELEGATES TO A. M. A.

John C. Yates—The June session in Chicago being my first experience as a delegate to the A. M. A., a number of little details were noticed that after further experience would probably be unnoticed. I was first particularly impressed with the character and sincerity of the members of the House of Delegates; the punctuality of the members in attending meetings; the smooth running of the house, on account of the ability of the chairman, Dr. F. C. Warnshuis of Michigan. A number of routine matters were brought up by resolution, in the same manner as followed by our own society, being referred to various reference committees for report. I think I was most particularly impressed with the solution of the medical education problem, as presented by the president, Dr. William Allen Pusey, as it seemed on the face of it to be a lowering of standards of education which have been so laboriously built up; but upon further explanation and consideration of the faults in our present system, as to great length of time required, and age of person studying medicine, before one is able to gain a livelihood, is probably driving our brighter minds into other channels of endeavor; also our seeming lack of physicians in the rural communities—that this was a working foundation, on which to start an entirely different form of education, which might work to great advantage in many ways, of course provided our graduates have ambition to fulfill the ideals put forward in the plan. Of course, there will be a number of drawbacks in many ways, and we cannot make people honest.

The next most interesting event was, probably, the action taken as to alcohol for medicinal use, in which the members who have always believed in prohibition took fully as active a part as the ones who have not been prohibitionists in feeling that the physician who really believes alcohol to be an aid in therapeutics should be allowed also to use it in accordance with his best judgment. But that the physician who in all probability is prescribing alcohol for beverage purpose should be dismissed from his local society and reported to the prohibition officers.

On Wednesday I visited the municipal pier, where the scientific meetings were held and where commercial exhibits were housed. This was a great improvement on the old way of having to go from one hall to another, sometimes at quite a distance. One also met friends from different places very easily, thus furthering sociability and good fellowship. This probably tended to make the attendance at meetings larger than it otherwise would have been.

Thursday the chief order of business was the election of officers, which was very peaceful and harmonious. As the minutes of the meetings of the House of Delegates have been published in the Journal of the A. M. A., I feel there is no use in going into the transactions in detail.

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Albert Soiland—Having had the honor of acting as a delegate to the American Medical Association on behalf of the California Medical Association for four consecutive terms serves as my excuse for presenting these personal remarks on the Chicago meeting of the House of Delegates.

The California delegates have always been received kindly and treated with consideration and respect by the House of Delegates. This spirit was even more apparent at the meeting just concluded and reflected the action of the membership of the house as a whole. Perhaps meeting in our own home for the first time had a good influence, and also the efforts made by Secretary West and his associates in the Americacn Medical Association to make us comfortable. A substantial luncheon was served by the association to the delegates on Monday and Tuesday, thus conserving time and expediting the work of the House of Delegates. The president, Dr. Wilbur, addressed the delegates in his usual terse and masterful manner on some of the problems of the medicacl profession. He was accorded enthusiastic applause. The incoming president, Dr. Pusey, delivered a very able address, covering some of the nursing problems and many desired reforms in medical education. In addition to the customary forenoon sessions of Monday and Tuesday, the afternoons of these days were also pressed into service to take care of the unusual amount of business presented. The detail of this will, of course, be found in the minutes of the house, which are printed in the Journal of the A. M. A. On different occasions the California delegates, particularly Dr. Vechi and Edwards, were recognized by the speaker, Dr. F. C. Warnshuis, and their remarks applauded by the delegates.

There was no business transacted which specifically concerned California although a number of resolutions and reports of general interest were adopted, as will be noted in the minutes. I presented a resolution asking that the temporary Section of Radiology working under Miscellaneous Topics be made permanent. This was submitted to the Council of Scientific Assembly with the approval of the house, for action.

It might interest our members to know that the attendance at the Thursday Radiological Section was 372 and on Friday 300, and that the officers of the Council on Scientific Assembly were pleased with the tone and character of this work.

Perhaps it may be pertinent to call attention to the resolution adopted by the house, making it unethical for hospitals, institutions or individuals to advertise in general their peculiar fitness by location, excellent equipment or other personal acquisitions to take better care of patients than others not so fortunately situated. This resolution was introduced by Dr. George E. Follansbee of Ohio and appears in print on page 1966 of the June 15 issue of the Journal of the American Medical Association.,

The resolution introduced by Dr. T. C. Chalmers of New York on the prohibition act is, in my opinion, a step forward in this perplexing question as it affects the medical profession. This merits study and will also be found on page 1966 of the issue referred to.

The elections on the closing day were carried out quietly and with less of the customary oratory than has been noted at other meetings. Dr. Haggard of

Tennessee received an overwhelming vote for president-elect, which was made unanimous. A full list of the events will of course appear in the official Journal.

COUNTY NEWS

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary)—The first meeting of the Alameda County Medical Association after vacation was held Monday evening, August 18. Considering that the members are not all back from their vacation, the meeting was well attended, some seventy-five being present.

Interesting case reports were given by A. M. Meads, Sumner Everingham, and N. A. Cary. The papers presented were: "Differential Diagnosis of Sinusitis," by Francis M. Shook; "Adjusted Compensation and How Applied," by Lieutenant C. Stanley Wood, U. S. A. (by invitation); "An Account of an Unusual Epidemic of Exanthem," by F. L. Kelly; "Pencillium Infection of the Lungs"—clinical phase, by Charles L. McVey; laboratory phase, by W. W. Reich, Ph. D. (by invitation), and were discussed by R. G. Van Nuy, Q. O. Gilbert, C. D. Sweet, and R. J. Nutting.

The following tribute to the late E. J. Boyes was presented by S. H. Buteau:

"I have known Dr. Edwin J. Boyes for more than thirty years. Our acquaintanceship was uninterrupted and progressive from the beginning, and with the years reached a close companionship. Together we have lived much of life, with all its varied experiences. I knew him well. He was a man of most unusual common sense. Every normal emotion and quality of mind were his, and yet these were so uniformly developed and rounded out, that only one characterized him—and that one was his fine wholesome optimism.

"In the sick room all his expressions of face, and voice, and conduct, were those of cheer and hope. These were ever at hand and proved most wonderful adjuncts to his scientific attainments. However, his optimism was not confined to the sick room alone, but in every walk of life it glowed and emanated from him like radiant energy. He always saw others in a favorable light, spoke well of them, and was actuated toward them by a most kindly disposition. I have on my library desk a framed motto. Its letters were made by hand, and it was given to be on a Christmas day years ago by my dear friend, Boyes. It reads as follows:

"'Never say anything wrong of anyone if you are not quite sure about it; and if you are, ask yourself, "Why do I say it?"'

"Just for a moment, in your mind, kindly give this sentiment life and universal expression, and then visualize this world of ours. You will see it as our departed associate struggled to make it.

"His life was a varied experience—a country boy, born in Canada; he passed through the graded public schools, and finally graduated at the Toronto University. Soon after this he joined a Government surveying party which blazed a pioneer trail across the great domain of British Columbia. The hardships and suffering that marked this long journey did not for a moment, during his recital of it to me, mar the wealth of enchantment that it brought into his life. After the completion of this work he entered medical college at Toronto, and, after graduating, at once began his successful professional career.

"A high scientific attainment was his; he brought it from his college. How about his wonderfully hopeful and kindly benevolent views of life? How and whence came these? It is not in colleges, it is not in books, it is not in cloistered meditation that we learn to know and feel humanity in a wholesome kindly spirit. This can be reached only in one way—by moving out into the great world, by 'knocking about the world' and thus entering into varied relations with humanity—'to feel their joys and suffer their sorrows, to fight the way with them, to win with them and lose with them.' These were the experiences of our co-worker, and he won out with them in a big, fine way.

"I love to recall him with the vision of the poet who saw in his type 'The sun-crowned men—men who stood above the fog in public duty and in private thinking.'"

SAN DIEGO COUNTY

San Diego County Notes (reported by Robert Pollock)—During the months of July and August, all scientific programs have been omitted by the medical society, the dental society, and the various hospital staffs. The Medical Bulletin continues its publication throughout the summer.

The new Scripps Memorial Hospital, ideally constructed and equipped in every way as a small general hospital unit of fifty beds, opens its doors to the public September 1. Announcement of the personnel of its board of directors and medical staff executive will be published later. It will be conducted as an open staff hospital to all members of organized medicine.

Dr. Rawson J. Pickard and Mrs. Pickard have returned from an extended tour throughout Europe. The doctor comments upon matters of medical interest abroad in his inimitable and entertaining manner.

Dr. James W. Sherrill of New York, for the past several years associated with Dr. Frederick M. Allan of the Rockfeller Institute for Medical Research and of the Physiatric Institute of Morristown, New Jersey, arrived in San Diego August 15 to assume the directorship of the new hospital and clinic for metabolic research at La Jolla. Cards announcing Dr. Sherrill's recent marriage to Miss Lucy Heath of New York suggest that the doctor is combining his honeymoon with his Western trip to his new home. The San Diego profession extends its warmest greetings to the young couple.

SAN FRANCISCO COUNTY

St. Joseph's Hospital Staff on Gastro-Duodenal Ulcers—On August 13, St. Joseph's Hospital staff, San Francisco, held a symposium on "Gastric and Duodenal Ulcers," Dr. A. S. Musante, presiding.

W. F. Cheney spoke on "Diagnosis and Medical Treatment," the following points being noted:

The diagnosis, not so common now, with our modern investigations, depends principally upon a long-continued (1-20 years) hyperacidity, and hypochondriac pain, worse at night; and hematemasis; with remissions, especially with alkalies and food; abnormal "cap" and pyloric obstruction, although no symptom is pathognomic. Complete study must include all evidence and differentiate other confusing diseases.

Treatment is surgical only with perforation, severe hemorrhage, pyloric obstruction, malignancy signs, and where relief is not obtained medically. Dietetic, medicinal and general treatment are necessary and is ambulatory, as a rule. Increased feedings and decreased selected amounts are best. Soda, bismuth, and olive oil are useful. With improvement, increase diet, avoiding vegetables, except purees, and salty and hot foods. Soups, well-cooked cereals, milk and cream are best. Later, omit oil and drugs. If needed, put in bed and enforce rigid care.

Relapses occur after medical and surgical cures.

J. H. Woolsey discussed "Surgical Treatment of Gastric and Duodenal Ulcers," summarized as follows:

For the diagnosis of these conditions, the history is of first importance and the x-ray evidence secondary. Accompanying tenderness often means involvement outside the viscus. Medical treatment should be employed in the early ulcer, but when the condition is recurrent or evidence of obstruction, long duration of lesion, bleeding, definite gastric "niche," especially in cancer age, or perforation is present, or

social condition prevents proper dieting and rest, then surgery should be employed. Preliminary mouth hygiene is important. The type of operation varies with the lesion found at the operating-table, and the condition of the patient. The more simple the procedure and the least change of the normal course of food the better. Lesions are generally on either side of pylorus, not at it (Moynihan). Lantern slides and drawings were used to demonstrate appropriate lesions and technique of Finney's, Heineke-Mikulicz' and Horsley's pyloroplasties, gastroduodenostomy, gastroenterostomy, partial gastrectomies (Balfour-Polya and Bilroth 1 and 2), and V-shaped excision. Gastrojejunal ulcers are probably due to non-absorbable sutures. Special intestinal suture fused in needle, without eye is best. Eliminate trauma—even clamp on jejunum, if possible. Horsley, in pyloroplasty, uses three-fourths of his longitudinal incision on the stomach, and one-fourth on the duodenum, giving a cone-shaped pylorus, and does not invert layers in anastomosing. Fat over suture line prevents adhesions. For antrum ulcers partial excision is best. In V-excision an associated gastroenterostomy is favored by Balfour. No physics are used in preoperative preparation—only an enema the night before. Hyperdermoclysis (1000-1500 cc.) in thigh is used during operation. Ice-chips are given soon. For hiccough, hot drinks are used. On third day, give soft food, baked potatoes with cream, etc. Semi-Fowler's position used for ten to twelve days, but dietary care is needed for a long time after.

D. D. Stafford and William Quinn presented cases of lung cancer.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by Philip C. Means, secretary pro tem.)—Santa Barbara County Medical Society met in the staff room at the Cottage Hospital, July 14, with Vice-president F. R. Nuzum presiding. Present: Twenty-one members, one intern, and two guests.

After the reading of the minutes, a letter from the local druggist's association was read, replying to a protest of obnoxious advertisements in the local papers. Satisfactory action was promised. Dues received left only one delinquent member. Five-minute case reports were given by Stevens, An Abdominal Tumor; and Koefod, Pneumococcus Stepticemia. Dr. W. H. Eaton presented figures on the increased infant mortality shown by the records of the health office. Discussion was deferred to a later meeting. The paper of the evening was then presented by Clifford A. Wright of Los Angeles, "The Pituitary Gland and Some of Its Disorders." Lantern slides were shown of many patients and x-ray of each sella, with the peculiarities in manifestation. The paper brought forth much discussion and many questions.

YOLO COUNTY

Yolo County Medical Society (reported by John D. Lawson, secretary) — Regular meeting held in conjunction with bi-weekly conference of Woodland Clinic, July 10.

The program was as follows: "Relation of Physician to Patient," H. D. Lawhead, M. D. "Deep Roentgen Therapy of Uterine Myoma During Pregnancy," John D. Lawson.

John D. Lawson was elected secretary, vice Lela J. Beebe resigned. Dr. Beebe has accepted a position with U. S. P. H. S. in the child welfare division.

DEATHS

Brown, Newell J., Sr. Died at California Hot Springs, July 20, 1924, age 69. Graduate of Dartmouth Medical School, Hanover, New Hampshire, 1876. Licensed in California in 1897. He was formerly a member of the Kern County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Devitt, Thomas George. Died at Montebello, May, 1924, age 57. Graduate of Trinity Medical College, Toronto, Canada. 1894. Licensed in California, 1901. He was a member of the Los Angeles County Medical Society, the California Medical Association, and the American Medical Association.

Eichler, Alfred. Died at San Francisco, August 16, 1924, age 59. Graduate of Cooper Medical College, San Francisco, 1894. He was a member of the San Francisco Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Godin, Arthur Fuller. Died at Los Angeles, July 19, 1924, age 49. Graduate of the University of Southern California College of Medicine, Los Angeles, 1901. He was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

McConnell, Allen Bonner. Died at San Francisco, August 8, 1924, age 46. Graduate of Cooper Medical College, San Francisco, 1901. He was a member of the Fresno County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Sheppard, Christopher. Died at Ontario, August 11, 1924, age 69. Graduate of Victoria University Medical Department, Toronto, Canada, 1890. Licensed in California in 1899. He was a member of the San Bernardino County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Wilson, Foster E. Died at Huntington Beach, August, 1924, age 71. Graduate of the Miami Medical College, Cincinnati, Ohio, 1877. Licensed in California in 1892. He was a member of the Orange County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

NEW MEMBERS

Los Angeles—H. W. Boyd, Wm. E. Branch, John R. Frank, Cleve E. Kindall, I. J. Lopizich, E. W. O'Donnell, Edwin G. Schutz, W. T. Schwabland, Howard C. Slaughter, John Wesley Smith, E. D. T. Howell.

Long Beach—Lenore H. Gageby.

Sherman, Los Angeles County—J. R. Perry.

San Diego—C. N. Allison, C. P. Baxter, C. L. McAmis, Chas. Watkins Brown.

TRANSFERRED

Wm. M. Miller, Riverside County to Sacramento County.

J. A. Connell, San Bernardino County to Riverside County.

Roy J. Jones, Siskiyou County to Sacramento County.

Ethel M. Watters, San Francisco County to Santa Cruz County.

Henry C. Coe, San Francisco County to Alameda County.

Elizabeth Schulze-Heald, San Francisco County to Alameda County.

STIMULANTS AND DEPRESSANTS

"The August number of the California and Western Medicine is, in my humble opinion, one of the best samples of what a medical journal should be, that I have ever seen, and I feel that I must compliment you upon the marvelous change which you have effected in the composition of this, our 'house organ.' "—M. C., Los Angeles.

"Your plan of submitting papers for discussion before publishing them seems to me as one sure to improve the

quality of the contributions. I appreciate the request for comments upon Dr. Blank's paper."—G. R., Oakland.

"I am very greatly pleased to know that this article is to appear in California and Western Medicine. It is an honor to be associated in any way with the magnificent publication our magazine has become."—E. H. W., Los Angeles.

"I am much gratified at the discussion elicited, and believe that it all will be read with some interest when you publish it. In this connection, I believe that articles in the specialties or in general medicine in our Journal that present a new phase or savor of some original delving will benefit us more than the simple citation of the routine."—O. V. S., Los Angeles.

"It is a great privilege to prepare these discussions, as it forces me to do an immense amount of reading that otherwise I would not do."—M. B. W., San Francisco.

"As to the general plan of discussion which you are trying to install, I believe it is good and should develop information about the men throughout the state who may have ability that you can use for the literary advancement of the Journal."—W. W. C., Fresno.

"Frankly, we think it is because of the high standard of your editorial policy that your magazine receives the advertising support that it does."—Riggs Optical Company.

"I am very sorry to say that the illustrations which are reproduced in my article are so poor that they are worse than useless. I was in hopes that you might use a quality of paper that permitted showing some distinct detail instead of being an indistinct blur."—P. K. B., San Francisco.

ACTIVITIES OF THE BOARD OF MEDICAL EXAMINERS

We have directed our special agent to make an investigation of ——— at —— Sutter street, San Francisco, which we presume is one of the many "beauty specialist" concerns that operate in San Francisco, says a letter from Charles B. Pinkham, M. D., secretary-treasurer.

Unless the individuals operating such concerns hold themselves out as doctors, or unless by their treatment they use any operative procedure or "filling" processes, it is practically impossible to initiate any action to discourage their procedure.

We find the victims of "beauty specialists" are most reluctant to help us prosecute, and inasmuch as the law demands testimony on the part of one who has been treated, it seems a hopeless task, although we have been working on concerns of this kind for many years, having obtained during that time about three convictions in San Francisco, and these only in the instance where the victim appeared as prosecuting witness.

Our attention, says Dr. Pinkham in a letter to Mrs. —— of Woodland, has been called to a clipping from the Woodland (Cal.) Mail, June 1, 1924, the last paragraph of which reads as follows:

"Mrs. —— will immunize the Clarksburg children against diphtheria Wednesday when she will hold clinic at the river town."

We are writing to advise you that such procedure, as related above, constitutes a violation of the Medical Practice Act, and refer you to Section 17 of said act, which provides a penalty for treating, diagnosing or prescribing for any ailment of the human system.

The law requires that work of this kind must be performed by one duly licensed to practice under the laws of the state of California.

"Respect for self and respect for our profession demand that our service be adequately recomposed, but we must be ever mindful that the fees which we exact should also be commensurate with our patient's ability to bear financial burden."—Journal Medical Society New Jersey.

Nevada State Medical Association

HORACE J. BROWN, M. D., Reno.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

HORACE J. BROWN
President

C. E. PIERSALL
Secretary and Associate Editor

FINAL PROGRAM OF THE TWENTY-FIRST ANNUAL SESSION TO BE HELD SEPTEMBER 12, 13, 14, BOWER'S MANSION (20 MILES SOUTH OF RENO) NEVADA

Officers

Horace J. Brown, president, Reno; William M. Edwards, first vice-president, Yerington; A. C. Olmstead, second vice-president, Wells.

Trustees—A. C. Olmstead, W. A. Shaw, A. P. Lewis.

Delegate to A. M. A.—Horace J. Brown; alternate, J. LaRue Robinson.

Committees

Membership—C. W. West, Hal L. Hewetson, B. Brown.

Judicial—M. A. Robison, Donald Maclean, R. A. Bowdle.

Scientific Work and Program—J. L. Robinson, A. P. Lewis, E. E. Hamer.

Necrology — V. A. Muller, S. R. Clark, G. L. Dembsey.

Council—C. E. Swezy, A. J. Hood (Elko), R. R. Craig, O. Hovenden, J. West Smith, D. A. Smith, S. K. Morrison, C. C. Bullette, C. H. Lehners, C. C. Blake.

Entertainment—S. K. Morrison, W. L. Samuels, J. L. Robinson.

Public Health and Education—Henry Albert, W. A. Shaw, M. R. Walker.

Military Affairs — The president, vice-presidents, and secretary.

Friday, a. m., September 12, 1924

1. L. M. Boyers, Berkeley, California. "Human Amebiasis as a Disease Entity."

2. Henry Albert, Reno, Nevada. "Amebic Dysentery from Laboratory Standpoint." Discussion of No. 1 and No. 2 by H. L. Hewetson, I. J. Sellers.

3. A. Huffaker, Carson City, Nevada. Subject unannounced.

4. James T. Watkins, San Francisco, California. "The Treatment of Some Shoulder Injuries." Discussion by W. B. Coffee, R. A. Bowdle, Donald Maclean.

5. Cullen F. Welty, San Francisco, California. "Mastoid Surgery." Discussion by J. A. Fuller, D. L. Shaw, J. L. Robinson.

6. M. R. Walker, Reno, Nevada. "Acne." Discussion by Albert Soiland, W. N. Kingsbury.

Friday, p. m., September 12, 1924

7. Leo P. Bell, Woodland, California. "Bantis Disease from Medical and Surgical Aspects." Discussion by E. P. Sloan, W. E. Stevens, A. P. Lewis.

8. E. P. Sloan, Bloomington, Ill. "Goiter." Discussion by V. A. Muller, G. J. Bergner, T. W. Bath.

9. William E. Stevens, San Francisco, California. "Some Interesting Urological Cases in Women and Children." Discussion by B. Caples, V. A. Miller.

10. W. H. Brennen, Eureka, Nevada. "The Physician in Politics." Discussion by M. A. Robison.

11. W. H. Riley, Gold Hill, Nevada. "Problems of the Industrial Surgeon." Discussion by Donald Maclean, R. R. Craig, W. M. Edwards.

12. George Carr, D. D. S., Reno, Nevada. "Relation Between the Dental and Medical Professions." Open discussion.

Saturday, September 13, 1924

13. Albert Soiland, Los Angeles. "Radiologic Treatment of the Leukemias." Discussion by M. R. Walker, A. J. Hood (Elko).

14. Howard Naffziger, 291 Geary Street, San Francisco. "Resume of Recent Advances in the Diagnosis and Treatment of Surgical Conditions of the Nervous System." Discussion by R. H. Richardson, G. L. Servoss, A. F. Adams.

15. W. B. Coffee, Southern Pacific Hospital, San Francisco. Subject unannounced.

16. John Tees, Reno, Nevada. "Acute Primary Pyelitis in Infancy." Discussion by A. Huffaker, Carl McPheeters.

17. V. A. Muller, Reno, Nevada. "Adenoma of the Thyroid." Discussion by E. P. Sloan, W. H. Brennen, W. A. Shaw.

18. G. Carl McPheeters, Fresno, California. "Obstetrics." Discussion by John Tees, A. B. Spalding, A. Huffaker.

19. Miley B. Wesson, San Francisco. "The Prostatic Median Bar, Complications and Treatment." Discussion by William E. Stevens, B. Caples.

Sunday, September 14, will be devoted to trips to Lake Tahoe and elsewhere. Ladies cordially invited.

The members of the Nevada State Dental Association are cordially invited to attend our annual meeting.

Washoe County Medical Society (reported by Vinton A. Muller, secretary)—The Washoe County Medical Society met in regular session on the evening of August 12, in the rooms of the Chamber of Commerce, Reno National Bank building, Reno, Nevada. There were twenty members and four visitors present. The chairman, Doctor R. H. Richardson, presided.

The minutes of the meeting of June 10 were read and approved.

Applications—During the summer recess the board of censors on membership had failed to act on the applications of Doctor Harold F. Atwood of Sparks, Nevada, and Doctor Ajika Amano, formerly of Fresno, California, therefore, these applications, together with one submitted by Doctor Mary Hill Fulstone of Wellington, Lyon County, Nevada, were held over and will be reported and voted upon at the September meeting.

Program—A paper on goiter, taking up the differentiation and methods of handling the various types, was presented by Vinton A. Muller, and illustrated with a series of lantern slides. J. E. Pickard of Reno opened the discussion dealing principally with the medical management of Basedow's disease. The paper was further discussed by Doctors Albert, Bath, and Ellis.

General Business — Professor Dinsmore, chemist at the University of Nevada, stated that his report on the iodine content of Reno's water supply was not ready. A committee consisting of Doctors M. A. Robison, J. E. Pickard, A. P. Lewis, M. R. Walker, and V. A. Muller was appointed to confer with the authorities at the State Hygienic Laboratory and render a report at the next meeting on the importance and methods of prophylaxis in regard to endemic goiter.

New Business — The approaching meeting of the Nevada State Medical Association to be held at Bower's mansion near Reno, in September, was discussed and the motion made, seconded, and carried that the Washoe County Medical Society obligate itself to cover any deficiency in funds that might occur relative to the entertainment of the guests.

Those present at the meeting were:

Members — Doctors Richardson, Parker, Lewis, Riley, Adams, Servoss, Pickard, West, Albert, A. J. Hood, Da Costa, Morrison, Brown, Tees, Maclean, Caples, Bath, Robinson, Robison, Muller.

Visitors — Professor Dinsmore, Doctor Marvin, Doctor Ellis, and Enichi Yamao.

Doctor Charles E. D. Lord, Ruth, Nevada, died August 16, 1924, at the Steptoe Valley Hospital from a cerebro-spinal meningitis following a right suppurative otitis media. At the time of his death, and for seven years previous, Dr. Lord had been assistant surgeon for the Nevada Consolidated Copper Co. and the Nevada Northern Ry. Co. He had charge of their work at Ruth, Nevada.

"One newspaper is quoted as stating that the most important happening in this country last year was the birth of 2,000,000 children."

Utah State Medical Association

To the Secretaries of all Component Societies of the Utah Medical Association—The following letter has been sent to all county societies by J. U. Giesy, associate editor for Utah. The results will be reflected in this department during the coming year.

My dear Secretary—Recently the president of the Utah Society appointed the undersigned as associate editor of California and Western Medicine—the official organ of our state society, for the ensuing year.

In the past, the Utah department has not been made as much of as is believed it can be, and to the end of furthering and building up Utah's representation, I am writing to ask that each secretary of each county society forward to my address a brief resume of his society's proceedings for each month, early enough to reach me not later than the 10th of the month. On my part, copy must reach the magazine office not later than the 20th.

Furthermore, any news of members of the society should be included—the goings and comings, births, deaths, with a short obituary notice, marriages, anything of interest as affecting the membership, trips, post-graduate work, etc.

In addition, there will be space now and then available for short papers. It is suggested that each society arrange to have one or two papers on timely subjects written and sent in to this office through the secretary during the next twelve months.

I am just in receipt of a complimentary letter regarding the report of the recent state convention. Let's keep up the good work. Let me again ask your co-operation in making the magazine interesting to all the Fellows in the state, and putting Utah on the map in every state the publication may reach.

Fraternally yours,
J. U. GIESY,

Post-graduate Week—The Utah Medical Association Committee on Education and Post-graduate Work consisting of R. O. Porter, H. L. Marshall, W. R. Calderwood made the following announcement of plans for the annual week of graduate instruction to be held in Salt Lake City during the last week of August. We had to go to press before a final report could reach us, but it will be published in the next issue.

The course will be of six days' duration. Each morning's work will consist of two clinical lectures of approximately one hour and a half each. The first will be devoted to common problems in general medicine with emphasis on diagnosis. The second period will be devoted to pediatrics. Both of these clinics will be held in rotation at the hospitals of the city, and the point of view throughout will be to make them practical. Announcement of the instructors will be made later. Negotiations are well under way with some of the most eminent men in the United States in the lines indicated.

During the afternoons of the week it is planned to conduct in the laboratories of the University of Utah Medical School a short, intensive course in clinical laboratory methods. New and simplified procedures, suitable for the general practitioner, are constantly appearing, and many men have expressed their desire for opportunity to review the older methods. All of the facilities of the State Medical School will be available for lecture, demonstration, and actual laboratory practice.

This promises to be the most pretentious week of graduate instruction undertaken so far by the state association. Yet, in order to make it attractive to as large a number as possible, no increase in the customary $10 registration fee is contemplated.

Dr. Clifford Grule, eminent pediatrician of Chicago, has been secured to give the six clinics on pediatrics.

The lecturer on general medicine will be announced in a few days.

On July 12, the Oregon Short Line opened the third of its company emergency hospitals in the north yards at Salt Lake. This is known as the Oregon Short Line Emergency Company, and is a bungalow type structure with an emergency ward, an operating-room, a sterilizing-room, bath, and office.

Over the door is a bronze memorial tablet to Dr. S. H. Pinkerton, for many years the chief surgeon of the system. The company-owned and operated emergency hospital is the fruition of an ideal for which Dr. Pinkerton has long worked, and insofar the establishment of these hospitals becomes a monument to his endeavors to insure a competent and needful service to the company men.

The Utah department of registration, which is fostered and supported by the Utah state society, is functioning splendidly. Since the diploma-mill expose of some months ago, the department has been very busy. Some people say they are too busy. But—Lord knows it's hard enough for the regularly qualified doctors to give satisfaction, let alone a diploma-mill graduate—and there are the sick people to be considered. What does the average blacksmith know about radio anyway?

In the death of Dr. Edward Palmer Le Compte, father of Dr. Ed. Le Compte of Salt Lake, the medical profession of Utah loses one of its veterans. Dr. Le Compte was found dead in his office from cerebral hemorrhage.

Dr. Le Compte was an ex-army surgeon, having served with Custer in the early days of the West. He was born in Cambridge, Md., in 1846 and entered the United States army as a surgeon in 1874. He served under the colors until 1882. In 1878 he came to Utah and was stationed at Fort Douglas. He was married to Lydia Wells, daughter of James Wells, in 1880, and in 1883 moved to Park City, where he had lived ever since.

Besides his wife, Dr. Le Compte is survived by a son and a daughter, Dr. Edward D. Le Compte and Mrs. Wilson I. Snyder, both of Salt Lake.

During the past month the State Medical Society and the entire medical world of the intermountain country suffered an irreparable loss in the death of Dr. John F. Critchlow, who was killed on the night of July 24, when his car, carrying himself and wife, was wrecked on the road detour near Willard, Utah.

Staff members of St. Mark's hospital passed the following resolution on Dr. Critchlow's death:

"The grim reaper has once again descended upon our happy organization and has removed forever from our midst our beloved and endeared brother, Dr. John F. Critchlow. For more than twenty-five years Dr. Critchlow gave freely of his best efforts to the proper support and upbuilding of our institution. During these years he had, by his genial disposition, kindly ways and happy smiles, endeared himself to every active associate and consulting member of this staff; to the nurses who worked under and for him; to the patients relieved and cured by the deftness of his hands and the keenness of his intellect. This tremendous gap so quickly made we feel can never be filled. The kindly hand on our shoulder and the helping word in times of difficulty will be forever missed, and words are inadequate to express the greatness of our loss; therefore, be it

"Resolved, that this resolution be spread upon the minutes of this hospital staff and a copy be sent to his family, with the expression of our deepest sympathy."

The sectional meeting of the American College of

Surgeons for Idaho, Colorado, Utah, Wyoming and Montana was held at Pocatello, Idaho, August 25 and 26, 1924. An extensive and varied program regarding different phases of hospital work was carried out.

Medical Economics and Public Health

Malpractice Insurance—A celebrated malpractice suit against a prominent physician in London in which the lower courts gave a very heavy penalty has recently been featured in international news. The matter is still pending in superior courts.

In the meantime, British physicians are aroused over the necessity of ample legal protection, about which the British Medical Journal made editorial comment recently, abstracts from which may be of interest to our readers.

"The first step, after being qualified to practice," says the editor, "should be to become an active member of the British Medical Association and to join one of the professional defense societies."

"As a result of the case of Harnett v. Bond and Adam (in which the latter society undertook Dr. Adam's defense), and the anxiety the decision in the lower court has aroused in the minds of the profession, the councils of the Medical Defense Union and the London and Counties Medical Protection Society, acting on the advice of a standing joint committee, have decided to afford their members 'unlimited indemnity against damages and costs of the other side on the same conditions as at present prevail.' What this new provision means is made clear by the following statement published by the Medical Defense Union in our advertisement pages this week: 'In addition to the ordinary benefits of membership, each member is now provided with unlimited indemnity against damages and costs awarded against him in any case which is undertaken by the Union on his behalf. So that by a single payment of £1 per annum each member of the Union obtains complete security.' It should never be forgotten that, however skilful and careful a medical practitioner may be, there is always the risk that his treatment and general conduct of a case may be challenged (often long after the event) by the patient or by someone acting on the patient's behalf. In view of this ever-present danger, and of the extremely moderate subscription payable for membership of the societies undertaking individual medical defense, it is most disquieting to learn, on the authority of Dr. Fegen, chaiman of Council of the London and Counties Medical Protection Society, that much less than half of the practitioners of this country belong to a defense society. The childlike optimism with which some 25,000 members of our profession refrain from protecting themselves at a trifling cost against incalculable risk passes our comprehension."

Sounds much like home, doesn't it?

Is This Limited to Indiana?—"It is reported that some prominent members of the medical profession are having their laboratory work done gratuitously by the State Board of Health and then charging the patients for it at regular rates. If this allegation is true, then there is ample reason for the statement of the secretary of the State Board of Health that the policies pursued by the board have the endorsement of some of the prominent members of the profession. While we fully endorse the practice of charging patients for laboratory services when able to pay, and under no consideration do we uphold the policies of the state laboratories in making free examinations for any and all who come for service, yet we cannot uphold the doctor, whoever he may be, who charges for services that are rendered him gratuitously by the state and does it with the distinct purpose of avoiding the legitimate charges that would be made if a private laboratory did the work for him."—Editorial, The Journal of the Indiana State Medical Association, July 15, 1924.

"Spoonfeds"—"However convincing the arguments advanced in favor of the 'Sheppard Towner' bill may be," says W. H. G. Jr. in San Diego County Medical Society Bulletin, "there yet remains room for questioning the ultimate general future. With a bureau for this and a bureau for that for whose support we are taxed by two agencies whose functions should be distinct, what is the end? The lavish expenditure, already astounding, will soon make state income taxes more prevalent than at present. For an example of efficiency one needs only to deal with one of these government organizations, that, regardless of the holy ideals expressed at the outset, have degenerated most rapidly into pastures for 'lame ducks' and loyal constituents. We've too much bureaucracy already. President Coolidge's recent warning is both timely and pertinent.

"Then, too, just how willing are we to accept state medicine with lay control? It has been tried out in Europe and found a dismal and pathetic failure. Even Russia has had to 'de-governmentalize' her physicians and put them back into the old capitalistic system. Just how 'pink' do we wish to become? Just how much of diagnosis and therapeutic advising do we wish to turn over to our lay school officials or even to our Board of Public Health? The province of the former is education and not the diagnosis of disease, and that of the latter public health matters in the bulk and co-operation with the medical profession in individual cases. The exercising of the physician's function on the part of the former (and it is being exercised) is a crime against the children of our schools, and on the part of the latter it is socialism. 'State medicine will spell the doom of inspiration in medical work and of unlimited medical progress.' 'The wild quest for the "free," for the "gift," always ends in bitterness for all concerned.' The thing we get for nothing we value at nothing. 'Not protection but pressure, not a lightening but an increase in the burden makes the giant,' says Dr. Fischer of Cincinnati. May we not become 'spoonfed' in our expectation of continual and universal aid from an increasingly paternalistic federal government, spoonfed morally if not physically?"

Health Education Conference—A widely attended conference of several of the agencies interested in improving the health status, health outlook and health education among children was held recently at the Massachusetts Institute of Technology under the supervision of the Child Health Association. The following brief quotations from the proceedings are interesting and significant:

"The ultimate responsibility for the health education of the child lies with the classroom teacher. The teacher is 'the cloud by day and the pillar of fire by night' who will lead her children into the promised land of health and happiness.

"This is the most wonderful time in the world for health education to come into its own, for the school curricula are being made over to meet the physical, mental and spiritual needs of the individual child. **Health must be taught, and the people who are working out how it shall be done are the classroom teachers in the public schools.** . . . If the principal, the classroom teacher, the parents, the doctor, the nurse, and the physical educator all care, the child will care, and **nothing can stop this health movement.**

"It is part of a student teacher's responsibility to be physically fit. **We must not grant certificates or diplomas to teachers who are not physically fit and who have not a health consciousness.**

"Health education must not be left to the teacher of hygiene. It is only when health education be-

comes a vitalized course connected up with the life of the student that we are able to get results.

"No student has a right to follow a plan of living that will not maintain his health to the highest efficiency possible, and **if the student refuses to follow such a plan he must cancel his membership in the school.**

"The principles underlying the choice of subject matter for all school grades are as follows:

"1. The chief emphasis should be on personal health in the kindergarten and up to grade six.

"2. The chief emphasis should be on community health and socially healthful behavior in grades seven, eight, and nine.

"3. The chief emphasis should be on giving a scientific background in grades nine to twelve.

"By the time the child enters kindergarten, he should know the geography of his own body; that is, he should know an accurate, scientific, noun with which to designate every part of his external anatomy. He should be given the verbs to designate the various functions of the parts of the body as soon as he asks questions.

"It is as great an insult to a child's intelligence to deny him the knowledge of the marvels of his own intricate mechanism as to expect a boy to run an automobile by rote. Both the human body and an automobile cannot be run without understanding the machinery.

"The child should all along learn to watch his own progress in health as measured by the scales, and by a carefully graduated series of strength tests, stunts and games **supplied by the Physical Education Department.**

"The education to come must be built upon the concept of the unity of mind and body.

"Girls are interested in learning how to take care of their feet so that they can become better dancers. The care of the hair can be approached by discussing the question: 'To bob or not to bob.' Pretty smiles mean beautiful teeth, and this is a much better way to study mouth hygiene than to rehearse the old nonsense about brushing the teeth so that the cavities won't appear.

"No hard and fast rules can be made regarding methods (of teaching health). The methods must be determined by your objectives. The method itself is of less importance than the personality and enthusiasm of the teacher using it and the spirit which she puts into it.

"One of the curses of education is the idea that the doing of a particular piece of work is the important thing. But it is not. The creating of a permanent interest in the subject studied is the important thing. Are we creating in our future teachers a permanent interest in their own health and the health of others?

"A specialist is defined as a person on the school staff with specialized technical training. The opinion was expressed that the ultimate responsibility for the health education of the child lies with the classroom teacher, and that the principal function of the specialist is to give consultation service to the classroom teacher.

"A supervisor of nutrition is as necessary as the supervisor of music and art. Good nutrition is essential to strong teeth, a rosy clear complexion, a lithe body, and general good health.

"A nutrition specialist should devote special attention to the undernourished child. It is her province to follow up remedial and medical preventive work of individual pupils.

"Since the habits and attitudes acquired in preschool years play an important part in adult life, a health program should be formulated for the preschool years.

"If a man buys an automobile, the garage man will give him ten lessons on how to protect the car. Few parents with a baby have as much knowledge given them about the care of the child as a Ford owner is given in starting out with a new car.

"There are two ways in which to regard the preschool period. Some people think that this is the time to remove all temper signs, sulkiness, restlessness, and habits of disobedience. They think the child should be trained so that he can walk in line. They want the child turned over to the school as a weeded garden or an erased tablet so that the school can do its worst. Fortunately, we cannot do these things to children. A better way to consider the preschool period is as a pace-maker for the school. We must begin in the kindergarten to stress the need for thinking of children as individual personalities.

"While recognizing the desirability of developing every possible method for measuring the results of a school health program, it must be recognized that there are fundamental benefits which are not at present subject to physical measurement.

"The few simple laws of health that were launched (during the World War) as the Rules of the Game, when we tried to keep the program simple, concrete and definite, are still the laws of health which we need to teach the children.

"Today we are being careful not to do spectacular work, but rather to build up from the bottom by training workers to teach health to children in the best possible way.

"While we go on with this health program, we must be careful or we will find ourselves on the mountain top looking back at people in the valley below. We can only go as fast and as far as the people themselves go.

"A complete health examination by a competent physician upon the entrance of every student should be the basis for the student's subsequent program. Such an examination, however, without adequate follow-up resulting in actual health maintenance and improvement is futile.

"Some institutions are already recognizing the responsibility of the student to develop the best possible standard of health for that individual. The time is doubtless at hand when a reasonable health standard, with proper consideration of the limitations of the individual, will be demanded as a requisite for graduation.

"Every teacher applying for a position should have an examination by a competent and **impartial physician accredited by the Board of Education.**

"Only healthy applicants should be given permanent positions, it being understood that permanent teachers' licenses will not be granted until steps have been taken toward reaching the highest physical efficiency.

"The ultimate responsibility for health education of the child in the school lies with the classroom teacher. The principal function of the specialist is to give consultation service to the classroom teacher.

"In schools where there is no special supervisor of health education, the responsibility for the health education program must rest with the superintendent or his assistants, whose duty it will be to **use doctor or nurse** and all other available specially trained workers to assist teachers on the technical side.

"Laboratories in the pre-school field, such as habit clinics and **nursery schools,** are performing invaluable service in providing information related to child care and child training for parents and professional workers. The need for extending this type of experiment is recognized. Such centers are most effective when associated with institutions of higher learning.

"Report of special committee appointed by the Chair to consider the duties of physicians, nurses, teachers, and parents in relation to the examination of the child.

"The aim of such an examination is to provide for every child a chance to achieve the limit of his endowed capacity for well-being.

"The functions of the participants should be as follows:

"Physician—1. To provide guidance toward better

health through education of the children. 2. To provide an examination service which (1) discovers all physical defects, diseases, incipient conditions and tendencies toward ill health among school children; (2) finds sources for remedy.

"Nurse—1. To assist the physician at the examination. 2. To assist in interpreting results of the examination to child, teacher, and parents in school and home through instructional conferences. 3. To stimulate and secure correction of physical handicaps.

"Teacher and parents—1. To be present at the examination, and to supply information relative to history and habits of the child. 2. To secure the cooperation of the children through class and individual instruction. 3. To gain knowledge from the examination that shall function as a basis for further health teaching."

True for California Also—"The question of the amount to which our dues should be raised," says the Nebraska State Medical Journal editorially, "will be determined to a degree by the patronage that our members give to those firms that advertise in the Journal. We have repeatedly stated that we cannot hope to have a substantial advertising income if we do not patronize those who use our advertising columns. A firm will gladly spend money for advertising, providing that it receives a fair return upon its investment. Business men will not buy advertising space in publications that do not bring them business. The expense of the Journal and the Society may be lessened by a large advertising revenue. We cannot secure this income if you, Doctor, do not do your part and patronize those who advertise in your Journal. It is no more than fair that you give these business firms preference when you buy your supplies. Tell them that you are giving them your patronage because they do advertise in your state medical journal. Tell the detail man that you cannot give him an order because his firm does not use the Journal's advertising columns. If you will subscribe this support and co-operate in this manner, we will obtain greater advertising revenue. You in turn will not have to meet the otherwise certain deficit by paying much higher dues. Turn to our advertising pages. Become acquainted with our advertisers and then patronize them."

"400."—We carry for the second time in this issue the advertisement of "400" furnished through the Co-operative Medical Advertising Bureau of the American Medical Association. This substance is a blending of fresh milk and chocolated syrup. It is manufactured by the dairy interests under the name of the "400" Products Company, and is marketed through grocers and milk stands. The product is recommended by physicians and both the manufacturers and the editors of medical journals would be glad to have the experiences of other physicians with it.

New Management for Walters Surgical Company—The Walters Surgical Company announce in the advertising pages of this issue that beginning September 1, there will be a change in their management and personnel, C. B. Walters and LeRoy Seiler being in charge, and ready to put into effect their slogan, "A Service that Serves You."

"The great deterrent to unethical practice is general medical opinion, and he who dares to cross the line immediately becomes an outcast. He cannot maintain his membership in medical societies, cannot secure or maintain desirable hospital connections and, therefore, such a loss of professional standing becomes the equivalent of professional death."——American Medicine.

Cheerfulness—"You get cheerfulness out of life in proportion as you put cheerfulness in. You cannot invest counterfeit coin and expect dividends in real money."—The Policy.

BOOK REVIEWS

Local Anesthesia. Its scientific basis and practical use. By Prof. Dr. Heinrich Braun. Translated and edited by Malcolm L. Harris. Second American edition from the sixth revised German edition. 411 pages. Illustrated. Philadelphia and New York: Lea and Febiger. 1924.

Braun's text-book on local anesthesia is the first of many monographs which have since appeared on this subject. Most of them are better or worse, according as they deviate less or more from its methods. It will long remain a standard. The first edition was reviewed at some length in this column; the new one maintains its forerunner's sanity, thoroughness and honesty. L. E.

Handbook of Modern Treatment and Medical Formulary. A condensed and comprehensive manual of practical formulas and general remedial measures. By W. B. Campbell. Seventh edition. Philadelphia: F. A. Davis Co. 1924.

These collections of prescriptions have grown out of fashion. When one looks the book over and finds formulas containing eight or more ingredients, one is inclined to bless the activities of the American Medical Association, which has been one of the strongest factors in rescuing the medical profession from these illogical and cumbersome methods of prescription. L. E.

The Operating Room. Instructions for nurses and assistants. St. Mary's Hospital, Rochester, Minn. 165 pages. Ilustrated. Philadelphia and London: W. B. Saunders. 1924.

A useful book for operating-room nurses, in which surgeons also will take interest. The instrumentaria for various operations are listed, and the efficient and economical methods of the Mayo Clinic are set forth. L. E.

Pathological Technic. A practical manual for workers in pathological histology and bacteriology. By Frank Burr Mallory and James Homer Wright. Eighth edition. 666 pages. Philadelphia and London: W. B. Saunders Co. 1924.

The eight editions of the book by Mallory and Wright speak for themselves. This present new edition contains some additional chapters on spinal fluid, and chapters on photography as used in the pathological laboratory, which will be of value. The book is indispensable in every pathological laboratory. L. E.

Generalized Pain. By Prof. Dr. Norbert Ortner. Translated by Francis J. Rebman. 596 pp. New York: Medical Art Agency. 1922.

Prof. Ortner has completed his work, "Clinical Symptomatology of Internal Diseases" in the second volume entitled, "Generalized Pain." This latest volume of 596 pages represents "a complete symptomatology of all painful sensations experienced by the human organism, with the exception of the abdominal region," the latter being taken up in the first volume.

Pain has always been the most important symptom in disease, but its explanation has remained to a certain degree veiled, especially when it is a manifestation of a distant focus. The author has revealed the underlying causation of pain to a large degree. The excellent differential diagnosis of pain in the various anatomical divisions is of great importance, and the

book's usefulness is primarily due to this feature. The enumeration of pathological entities underlying painful sensation, even of the more simple anatomical regions, taxes the clinical abilities even of the most experienced observers. One cannot but question at times the accuracy of the author's interpretation of pain in obscure conditions.

The differential diagnosis of conditions producing cardiac pain is well done, especially that section pertaining to angina pectoris. The importance of a clear understanding of angina pectoris and pseudoangina cannot be too greatly emphasized.

No portion of the anatomy has been slighted by Dr. Ortner in his very careful and discriminating discussion of the etiology of pain. His work shows throughout the background of a vast clinical experience, coupled with the keen insight of a trained observer, and links him with other primary clinicians and observers, such as McKenzie, Albutt, and Wenckbach. D. D. L.

BOOKS RECEIVED

International Clinics, a Quarterly of Illustrated Clinical Lectures and especially prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc. By leading members of the medical profession throughout the world. Edited by Henry W. Cattell, M. D., Philadelphia, with the collaboration of a distinguished board. Volume II, Thirty-fourth Series, 1924. Philadelphia and London: J. B. Lippincott Company, 1924.

The Nature of Love. By Emmanuel Berl. Authorized translation by Fred Rothwell. New York: The Macmillan Company, 1924.

Diabetes, Its Treatment by Insulin and Diet, a Handbook for the Patient. By Orlando H. Petty, M. D., Professor of Diseases of Metabolism, Graduate School of Medicine, University of Pennsylvania. With several illustrations. Philadelphia: F. A. Davis Company, Publishers, 1924.

Manual of the Diseases of the Eye, for Students and General Practitioners. By Charles H. May, M. D., Director and Visiting Surgeon Eye Service, Bellevue Hospital, New York. Eleventh edition, revised. With 374 original illustrations, including 23 plates, with 73 colored figures. New York: William Wood & Company, 1924.

Goiter: Non-surgical Types and Treatment. By Israel Bram, M. D., Instructor in Clinical Medicine, Jefferson Medical College. New York: Macmillan Company, 1924. Compliments of the author.

The Medical Department of the United States Army in the World War, Volume XI, **Surgery,** Part Two. Prepared under the direction of Major-General M. W. Ireland, M. D., Surgeon-General of the Army. Washington: Government Printing Office, 1924.

Amputations, Operative Technique — Formation and After Treatment of the Stump from the Standpoint of Prosthesis. A study based on 1700 cases of amputation for injuries and disease occurring in the World War and since its termination. By Norman Thomas Kirk, M. D., Major Medical Corps, U. S. Army. Published under the authority and with the approval of the Surgeon-General, U. S. Army. Copyright 1924, The Medical Interpreter.

Looking Back—It is a good thing occasionally for a physician to cast his mind back to the economic and pathologic failures that he has made, so states the Medical Sentinel (July, 1924). He may not wish to recount them to his neighbors or publish them to the world, but it is undoubtedly true that one may learn as much from his failures as from his successes.

CORRESPONDENCE

In accordance with the request of the American Children Health Association, we are publishing the following essay as submitted. Some phases of this problem are discussed editorially in this issue:

Editor California State Journal of Medicine, San Francisco, Calif.

Dear Sir: We will appreciate the publication of the enclosed article on the Far Western Child Health Demonstration. Sincerely yours,

ANNA B. TOWSE,
Editorial Associate, Division of Publications.

FOURTH CHILD HEALTH DEMONSTRATION

S. J. Crumbine, M. D., Director of Public Health Relations, American Child Health Association

Recently the Commonwealth Fund Committee of New York City announced that "Some community of the Far West is to have an opportunity for national assistance in showing how far it may, during the next five years, safeguard the life and health of its mothers and children, as a contribution to a national program for the health of children." Continuing, the announcement reads: "There will be one paramount consideration in making the choice, namely, the sincerity of the community's desire to develop and complete a rounded child health plan for the community as a whole."

Manifestly, the success of "a complete and rounded child health plan for a community as a whole" must be conditioned upon the sympathetic support and hearty co-operation of the medical profession of the community selected. In the 1923 annual report of the Commonwealth Fund, page 13, is found the following statement:

"Whatever be the merits of state medicine, the Commonwealth Fund is not lending its influence to anything of the sort. It has no desire to interfere with the practice of private physicians; on the contrary, their co-operation has been sought and freely offered. An educational and preventive program of this character, far from decreasing the need of the physician's service, should increase it. Absolutely no remedial work is or will be done; while the influence of the demonstration staff is constantly exerted in educating people to make use of the physician's services in order not alone to get well but to keep well."

The objectives of the demonstration might be summarized as follows:

1. By careful inventory and study, to determine the health needs of the community.
2. To prepare a program that may adequately meet these needs.
3. To select a personnel of such training and experience as may give reasonable assurance of maximum results.
4. To measure and evaluate methods, results and costs for general publication.
5. To conduct the demonstration along practical lines, so as to stimulate other communities in the Far West to undertake similar activities for child health.

Special consideration will be given to health teaching in the schools, for it is believed that the solution of the health problem for individual, community and nation rests upon the teaching of health in our schools, which must be of a kind and character to register in the formation of positive health habits. If, with the inculcation of health habits in the school and the home, the on-coming generation can be taught that to seek the advice of the doctor in matters of health as well as disease is but common sense and prudence, that the opinions of the untrained and uneducated neighborhood granny or quack are fraught with potential danger, as is also the patent

medicine bottle, that positive health rather than freedom from disease is the standard toward which both doctor and client should strive; then, the physical strength, efficiency and happiness of the race are reasonably assured, and with such assurance the medical profession will occupy its rightful place in the social fabric of the community it serves.

ACKNOWLEDGMENT OF REPRINTS

Dillon, James R. Perineal Prostatectomy by a Modified Technic. Reprinted from the Journal of the American Medical Association, January 26, 1924, Vol. 82, pp. 287 and 288.

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Practical Considerations in Management of Patients Presenting Essential Hypertension. Reprinted from American Journal of the Medical Sciences, May, 1924, No. 5, Vol. CLXVII, p. 710.

Sudden Death Following Thoracentesis. Reprinted from the American Journal of Medical Sciences, March, 1923, No. 3, Vol. CLXV, p. 357.

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The Management of a Diphtheria Outbreak in a Private School. Reprinted from The Journal of the American Medical Association, November 26, 1921, Vol. 77, pp. 1714-1717.

and Vecki, M.; Shaw, E. B.; Meyer, K. F. The Pathogenicity of B. Abortus and B. Melitensis for Monkeys. Reprinted from The Journal of Infectious Diseases, Vol. 29, No. 6, December, 1921, pp. 663-698.

Franklin, Edward A. Function of Neuroglial Tissue—Facts and Theory. Reprinted from The Journal of Nervous and Mental Diseases, Vol. 60, No. 1, July, 1924.

Gottlieb, Abraham. Arch Supports — Their Abuse and Proper Indication. Reprinted from The Journal of the American Medical Association, January 26, 1924, Vol. 82, pp. 295 and 296.

Kilduffe, Robert A. The Complement-Fixation Reaction in Tuberculosis With Kolmer's Quantitative Method. Reprinted from The American Review of Tuberculosis, Vol. IX, No. 2, April, 1924.

The Case for and Against the Quantitative Complement-Fixation Test in Syphilis. Reprinted from the Archives of Dermatology and Syphilology, May 1924, Vol. 9, pp. 571-576.

A Graphic Chart for Recording the Results of Treatment in Syphilis. Reprinted from The American Journal of Syphilis, Vol. VIII, No. 3, July, 1924.

The Status of the Complement-Fixation Test in Relation to the Cure of Syphilis. Reprinted from the Archives of Dermatology and Syphilology, July, 1924, Vol. 10, pp. 63-68.

Meyer, K. F.
See Fleischner, E. C.

Morgan, Norman D. An Operation for the Correction of Procidentia or Marked Cystocele and Rectocele. Reprinted from Surgery, Gynecology, and Obstetrics, April, 1924, p. 559.

Rowe, Albert H. The Value of Basal Metabolism Studies in the Diagnosis and Treatment of Thyroid Disease. Reprinted from the American Journal of the Medical Sciences, August, 1921, No. 2, Vol. CLXII, p. 187.

Focal Infection from the Internist's Point of View. Reprinted from Northwest Medicine, February, 1923.

The Diagnosis and Treatment of Thyroid Disease as Controlled by the Metabolic Rate. Reprinted from Endocrinology, March, 1923, Vol. VII, No. 2.

Insulin Treatment of Diabetes Mellitus. Reprinted from California State Journal of Medicine, May, 1923.

The Insulin Control of Diabetes Mellitus and Its Complications. Reprinted from Endocrinology, November, 1923, Vol. VII, No. 5, pp. 670-680.

Effect of Insulin in Treatment of Diabetic Lipemia With Lipemia Retinalis. Reprinted from The Journal of the American Medical Association, April 12, 1924, Vol. 82, pp. 1168 and 1169.

Schmitt, L. S. Periodic Health Examinations and the Education of Medical Students for this Service. Reprinted from the Proceedings of the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, Chicago, March 3, 4, and 5, 1924.

Shuman, John W. A Lutheran Doctor in Syria. Reprinted from The Lutheran, May 29, 1924.

Hyatid Brain Cyst. Reprinted from Medical Journal and Record, July 16, 1924.

Shaw, E. B.
See Fleischner, E. C.

Vecki, M.
See Fleischner, E. C.

BOARD OF MEDICAL EXAMINERS

Legal hearings before the Board of Medical Examiners, July meeting (as reported by C. B. Pinkham, M. D., secretary).

Adcox, Reuben, M. D. This individual under the name of Robert Adcox has been prominently mentioned in reports as one of the principals in the diploma mill conspiracy. He gained admission into California by reciprocity in 1919, based on a Missouri license dated July 11, 1910. In connection with his alleged diploma mill activities, he was recently reported as convicted of bribery in St. Louis, Mo., and sentenced to two years' imprisonment. After hearing the evidence, the certificate of Reuben Adcox to practice in the state of California was revoked on Monday, July 7, 1924.

Coleman, Stuart, M. D. A citation was based on the record of the Federal Court conviction of violation of the Harrison Narcotic Act, and his case was continued to the October (1924) meeting owing to a pending appeal from the judgment of conviction.

Dietsch, Curt O., M. D. Had been found guilty of an alleged illegal operation charge at a hearing held before the board February 16, 1921, and his certificate was revoked July 8, 1924.

Dyment, Philip, M. D. Obtained reciprocity license in California in 1917 based on Georgia credentials. The Georgia board later reported that they had ascertained that the examination alleged to have been taken by Philip Dyment, M. D., was in reality taken by an individual named Lucius Gould Wright. Georgia revoked on the basis of Dyment having obtained his license by fraud, and in 1918 Dyment's California certificate was revoked. However, his appeal to the higher courts resulted in the judgment of the board being set aside on the basis of faulty complaint, and the court further "directing the board to take such further proceedings as it may be advised to take in the proceeding against appellant pending before it, all in accordance with the views expressed in this opinion." Citation was again issued, and a hearing held before the board July 8, 1924. Testimony was introduced consisting of certified copies of the records of the Georgia board, certified copy of an examination paper written in the subject of Pathology at the Georgia examination by the individual known as Philip Dyment, which, according to the testimony of Carl Eisenschimel, handwriting expert, was not the handwriting of Philip Dyment, who obtained a reciprocity license to practice in the state of California. After the board had listened to the testimony, the license of Philip Dyment to practice in the state of California was revoked July 8, 1924.

Mace, Robert D., M. D. Dr. Mace was cited, based upon record of conviction. There being an appeal pending, the board put the matter over for disposition at the October (1924) meeting.

Renwick, Robert, M. D. Dr. Renwick was charged with associating himself with an unlicensed practitioner, said unlicensed practitioner having been alleged to have so severely "baked" the feet of a patient seeking chiropody treatment as to have alleged to have caused said patient's death. The case was put over to the next regular meeting in Los Angeles.

Rinaldo, Eugene J., M. D. Dr. Rinaldo obtained reciprocity license in the state of California in 1922, based upon Missouri credentials. Testimony was introduced showing that the 1908 diploma of the St. Louis College of Physicians and Surgeons, on which Rinaldo was admitted to examination before the Missouri board in 1920, was fraudulent; that the certificate of pre-medical education presented to the Missouri board by Rinaldo in 1920 was, according to the affidavit of W. P. Sachs, whose signature is affixed to each of said documents, sold by said W. P. Sachs to Robert (Reuben) Adcox and that Sachs had never seen Rinaldo; that, according to an affidavit introduced in evidence signed by Eugene J. Rinaldo

and reported as presented by him to the St. Louis College of Physicians and Surgeons in 1918, Eugene J. Rinaldo stated he attended the first three years of medical instruction in the Pacific Medical College, Los Angeles, although in Rinaldo's sworn statement before the California board at the February (1924) meeting, he stated during the same period as his relating attendance at the Pacific Medical College he was conducting a conservatory of music and a military academy in Missouri. After the board had heard the testimony, the license of Eugene J. Rinaldo, M. D., to practice in the state of California was revoked on July 9, 1924.

Sturges, Roy L., M. D. Dr. Sturges appeared before the board in answer to citation based upon Harrison Narcotic Act violation. Was found guilty on July 8, 1924, and placed on probation for five years.

Viereck, Henry C., M. D. Dr. Viereck was charged with habitual intemperance. The case was called. Dr. Viereck did not answer. Testimony was introduced, and on July 8, 1924, the license entitling Henry C. Viereck, M. D., to practice as a physician and surgeon in the state of California was revoked.

Very truly yours,
C. B. PINKHAM, M. D,
Secretary-Treasurer.

ANNUAL CONFERENCE OF THE HOSPITALS OF CALIFORNIA, LONG BEACH, NOVEMBER 6, 7, 8

The committee appointed at the 1923 Conference of Hospitals of California to investigate the costs of hospital service and report to the 1924 Hospital Conference upon the possibilities of rendering hospital care more economically, adequately and efficiently, not only to those who are able to pay the full cost of such service, but also to those who cannot pay the present prices asked for such service, has issued a comprehensive questionnaire. As our readers will observe, the questions asked by the committee relate to facts which determine the costs of hospital care. To have time to assemble and analyze the data and to complete its report, the committee requests that replies be placed in its hands before September 15. The full report of the committee will be made at the Annual Hospital Conference, which will be held at Long Beach, November 6, 7, 8, 1924.

Questionnaire

Total Beds .....Men.....Women.....Children.....
Single Private Rooms.....Double Private Beds .....Ward Beds.....
Beds Available for Medicine and Medical Specialties .....
Beds Available for Surgery and Surgical Specialties .....
Beds Available for Obstetrics.....
Neuropsychiatry Patients .....
Beds Available for Contagious Disease Patients.....
Number of Different Patients Treated in the Hospital During Year .....
Births .....Deaths .....
Stillbirths .....Autopsies .....
Number of Patients Visiting Clinic.....Number of Clinic Visits.....Total Income from Clinic $.....

Patient Days

Total Patient Days All Classes for Year.....
Total Paying Full Rates.....
Total Paying Part Rates.....
Total Free Service.....

Financial

Value of Hospital Site.....$.....
Value of Buildings and Permanent Improvements .....$.....
Value of Equipment and Furnishings.....$.....
Total Endowments .....$.....
Total Assets .....$.....
Alterations and Repairs.....$.....
Replacements for Buildings, Equipment and Furnishings .....$.....
Mortgages, Notes and Other Standing Indebtedness .....$.....
Bonded Debt .....$.....
Amortization Charges for Retiring Bonds....$.....
Taxes of All Kinds.....$.....
Capital Stock Authorized.....$.....
Stock Sold .....$.....
Dividends .....$.....
Interest Payable.....Interest Receivable.....$.....
Uncollectable Accounts .....$.....
Insurance of All Kinds—Amount of Coverage .....$.....
Total Premiums .....$.....

Earnings, Expenses, Receipts and Disbursements

In addition to the figures requested above:

Gross Earnings of all services of whatever character figured at regular Hospital Book Rates.
(Please itemize this answer.)
.....$.....
.....$.....
.....$.....

Gross Expenses (Please itemize this answer).
.....$.....
.....$.....
.....$.....

Total Receipts From All Sources of Whatever Character (Please itemize this answer).
.....$.....
.....$.....
.....$.....

Total Disbursements From All Sources of Whatever Character (Please itemize this answer).
.....$.....
.....$.....
.....$.....
.....$.....

Additional Information

Total Salaries:
(a) Physicians .....$.....
(b) Technicians .....$.....
(c) Nurses .....$.....
(d) Dietitians .....$.....
(e) Laboratory Workers .....$.....
(f) Other Technicians .....$.....
(g) Other Employes .....$.....

Total Extra Charges Collected:
(a) Operating Room Fees.....$.....
(b) Anesthetic Fees .....$.....
(c) Laboratory Fees of all kinds.....$.....
(d) Radiology Fees of all kinds.....$.....
(e) Nurses' Fees of all kinds.....$.....
(f) Other Extras .....$.....
.....
.....
.....

Total Cost of Subsistence per capita per day:
$.....
Cost of Meals.....$.....

(In each of these answers, if the work is done outside of the Hospital, please give the name of the person or laboratory performing the work and state whether the Laboratory or the Hospital collected from the patients.)
Total Profits for 1923.....$.....
Deficit for 1923 .....$.....

Please fill in and mail this Questionnaire as promptly as possible to Hospital Betterment Service Bureau, John H. Graves, M. D., 593 Market Street, San Francisco, Calif.

The 1924 Hospital Conference promises to surpass preceding hospital conventions in interest and attendance. Representative hospitals will send one official delegate from each of the following: Ownership, directorate, administration, staff, nursing, and all professional and technical departments.

Nerve Racking Noises

Prim Press unit in the completely "American" equipped laundry of the St. Luke's Hospital, San Francisco, California.

. . . eliminate them with the Prim Press

and get this superior laundry service

The constant jarring and pounding of the old-time foot treadle press, is bound to cause nervous strain and lower efficiency.

With the Prim Press, however, the operator is able to save her nerves and devote her energy to profitable production.

This press works smoothly and silently and does away with practically all physical labor. There is no foot pressure treadle to ride down; the head is raised and lowered entirely by electricity. Also the Safety Shield provides absolute protection.

With such a press it's easy to keep your operators — and they turn out work that is uniformly better. For *maximum* pressure is automatically applied every time the head is lowered.

Vastly greater production is possible —the two Prim Presses shown in the above installation, operated by a single girl, have a combined pressing area of 80 hand irons!

There are other features of the Prim Press, equally interesting and equally profitable for the institutional laundry. Have us tell you about them— and of the co-operation in planning and equipping your laundry that "American" engineers are ready to give.

The American Laundry Machinery Company

Norwood Station, Cincinnati, Ohio

The Canadian Laundry Machinery Co., Ltd.,
47-93 Sterling Road, Toronto, Ont., Canada

Nicomors—The Council on Pharmacy and Chemistry took up the consideration of Nicomors, stated to be a medical preparation for the alleviation of the physiologic effects of nicotin at the request of the Nicomors Products Company. Nicomors comes in the form of tablets which are claimed to contain magnesium peroxid and tannic acid as their essential constituents. It is claimed that with the use of Nicomors the effects of tobacco smoking show very little or not at all. It is even claimed that the preparation has a favorable effect on the stomach and the intestines. The Council reports that the claim that the random use of a mixture of magnesium peroxid and tannic acid has a favorable effect on the stomach and intestines, is without warrant, and that the claim that the ill effects of tobacco smoking can be overcome by the use of Nicomors is not credible and not supported by any acceptable evidence.—(Journal A. M. A.)

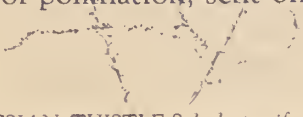
Morphin Addiction (Propaganda for Reform, Council on Pharmacy and Chemistry, A. M. A.)—The so-called withdrawal symptoms which arise in those who have become accustomed to large doses of morphin are well known to all practitioners who are compelled to deal with such habitues. To account for these symptoms it has been alleged that the continuous taking of morphin causes the presence in the blood serum of a substance having a protective effect against this drug. However, it has been shown that the blood of a tolerant animal does not contain any protective substance against morphin, nor was there any substance capable of conferring any immunity to the toxic action of morphin on an animal into which it is injected detected in the blood serum of a human being who has acquired a high tolerance to morphin. Also, it has been proven that a specific toxic substance is not produced by habituation to morphin. Since some methods of treating drug addiction have been based on the belief that a toxic substance is formed, the time has arrived for seeking a new point of departure in the explanation of the various manifestations that are presented by drug addicts.—(Journal A. M. A.

Vehicles for Prescriptions (Council on Pharmacy and Chemistry A. M. A.)—The following is a list of vehicles that can be used to prepare pleasant-tasting mixtures. Aqueous Elixir of Glycyrrhiza N. F., Compound Elixir of Cardamom N. F., Compound Elixir of Almond N. F., Compound Elixir of Vanillin N. F., Glycerinated Elixir of Gentian N. F., Elixir of Anise N. F., Red Aromatic Elixir N. F., and Compound Syrup of Asarum N. F. The formulas of these preparations may be found in the Epitome of the U. S. Pharmacopeia and National Formulary, published by the American Medical Association.—(Journal A. M. A.)

Weed Hay Fever

GIANT RAGWEED *Ambrosia trifida*

THE Late Summer and Early Autumn Type of Hay Fever is caused by many of the common weeds, as–Ragweed, Russian Thistle, Sage Brush –the species differing widely according to locality. To assure specific treatment diagnostic tests are essential. To assure preseasonal treatment early diagnoses should be made,–otherwise the less desirable, though often beneficial, coseasonal treatment will be involved. List of late flowering weeds, showing regional distribution and time of pollination, sent on request.



RUSSIAN THISTLE *Salsola pestifer*

SAGE BRUSH *Artemisia tridentata*

The Arlington Chemical Company

Yonkers, New York

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for gruel

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A comparative analysis shows (1 ounce)—

	Barley Flour	*DENNOS*
Protein	.195	.37
Carb.	2.093	5.60

1 level tablespoonful of DENNOS yields approximately 58 calories.

Send for new book of formulas, giving complete information for the use of DENNOS—the milk modifier, with whole milk, skimmed milk, and for gruel.

Free samples upon request to physicians.

DENNOS *The milk modifier*

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AND
WESTERN MEDICINE

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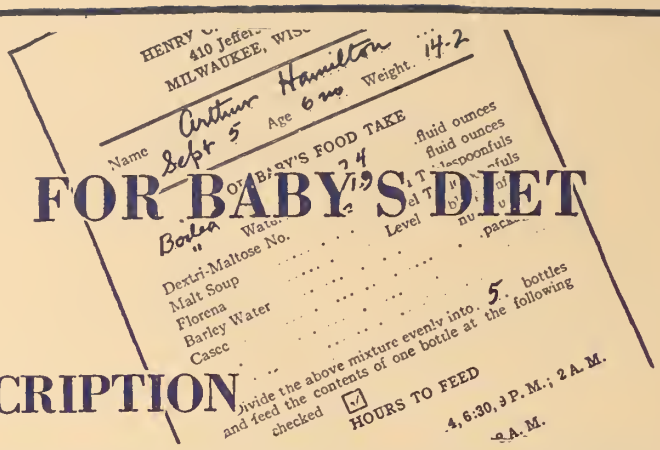
(Continuing the California State Journal of Medicine)



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It is individual—and its individuality shows that *thought* has been given to the baby's individual requirements—the mother is much more interested in her physician's judgment and much less apt to take cognizance of outside interference.

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For preparing a milk modification high in protein and correspondingly low in carbohydrate. For use in Fermentative Diarrhoeas and Marasmus.

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- ☐ A Set of Prescription Blanks
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- ☐ Samples and Literature, Mead's Casec

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CITY_____ STATE_____

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CALIFORNIA
AND
WESTERN MEDICINE

VOL. XXII OCTOBER, 1924 No. 10

SPECIAL ARTICLE

SOME CLINICAL ASPECTS OF AURICULAR FIBRILLATION

A CRITICAL REVIEW

By A. W. Hewlett, M. D., San Francisco

DEVELOPMENT of our understanding of fibrillation.

The nature of fibrillation.

Circus rhythm.

Auricular fibrillation influences cardiac efficiency partly by altering the ventricular rate and rhythm, and partly because the auricles no longer expel blood into the ventricles.

Auricular fibrillation commonly regarded as a serious cardiac disorder, but some physicians protest this view.

The great reputation of digitalis is due largely to its action in auricular fibrillation.

Indications and contra-indications for the use of quinidin.

THE first, definite, clinical differentiation of the cardiac irregularity now known as auricular fibrillation was made by James MacKenzie.[26] While engaged in general practice, MacKenzie recorded the venous pulses of his patients, arranged these records into groups, and showed that one of these groups was characterized by complete arrhythmia of the ventricles associated with an absence of normal auricular contractions. MacKenzie at first attributed this irregularity to auricular paralysis. Later,[27] he assumed that it was caused by the simultaneous contraction of auricles and ventricles (nodal rhythm).

That auricular fibrillation, experimentally induced, causes complete arrhythmia of the ventricles had been noted by a number of investigators.[30 8] The possibility that the complete irregularity of patients might be due to this cause was pointed out by Cushny,[6] and later emphasized by Cushny and Edmunds.[5] This explanation was not generally accepted, however, until Rothberger and Winterberg[33] and Lewis[24] demonstrated that electro-cardiograms from patients with complete ventricular irregularity commonly showed a succession of small undulations between the ventricular complexes which could be explained best by attributing them to fibrillary movements of the auricles. Lewis[23] later exposed the heart of a horse, showing a spontaneous irregularity of this type, and observed the auricles fibrillating.

In auricular fibrillation, the normal co-ordinated contractions of the auricles have been replaced by rapid inco-ordinated movements of the muscle. Different portions of the auricular muscle contract in irregular succession. The movements may appear coarse, suggesting a writhing, or fine suggesting a tremor; but in either case no effective propulsion of the blood from the auricles results from these inco-ordinated movements. On the other hand, the upper end of the His bundle receives a rapid and irregular succession of stimuli, estimated at from 350 to 600 per minute. The ventricular rate and rhythm are determined by the number and sequence of effective stimuli which cross the bundle. The ventricular rhythm is irregular because the stimuli come through irregularly. The ventricular rate varies, being markedly influenced by the capacity of the bundle to transmit the stimuli coming to it. Whenever the conductivity of the bundle is lessened, as by vagus stimulation or by the administration of digitalis, the ventricular rate is slowed, but still irregular. If the bundle be severed so that impulses can no longer pass from auricles to ventricles, the latter assume the slow and regular rhythm characteristic of complete heart block.[8]

The nature of fibrillation has been the subject of much study. It has been attributed[32] to rapid independent contractions starting from one or from many points in the auricular muscle. The experimental production of fibrillation by a rapid succession of electric stimuli accorded with this hypothesis. More recently, convincing evidence has been adduced in support of the theory that auricular fibrillation is caused by contraction waves which circulate without ceasing, round and round, in the auricular muscle—the so-called circus movements. This conception of auricular fibrillation, which we owe to Garrey[11] and to Mines,[29] is based in part upon experiments with circular strips of heart muscle. If such a circular strip be stimulated at one point, contraction waves ordinarily spread in each direction from the point of stimulation. The two waves meet on the opposite side of the ring and there die out. If, for some reason, one of the waves is blocked before it has spread far, the other will travel round the entire ring. By the time it has completed the circle, the starting point may have recovered its excitability. Under such circumstances, the wave will continue to travel round the circle, always finding excitable tissue ahead.

Actually, such circus waves, once started, have continued to travel round and round a circular strip of heart muscle for long periods of time. Lewis and his associates [22] have made electric records of the contraction waves in the intact auricle, and in this manner have demonstrated that the auricular fibrillation, which sometimes persists after faradic stimulation of the dog's auricle, is due to circus waves which usually circulate round the mouth of one of the venae cavae.

The inception of circus rhythm is favored by any condition which tends to block the normal spread of the contraction wave into a portion of the auricular muscle. Under such circumstances, the wave traveling by an indirect path may enter this portion of the muscle from the rear, and so initiate a circus movement. The original block in the muscle may be due to alterations in the muscle. Thus, de Boer [1] found that the hearts of frogs, which had been exsanguinated for a definite period of time, could readily be made to fibrillate, owing to the poor nutrition of the muscle. Block is also favored by a rapid auricular rate or by the occurrence of premature contractions, for certain portions of the auricular muscle may not have had time to recover from the previous contraction. Once circus movement has been initiated, the wave of contraction may continue to circulate about the mouth of one or both venae cavae for an indefinite period.

Circus contractions terminate whenever the head of the advancing wave of contraction fails to find responsive tissue in front of it. This might be due either to a more rapid progression of the wave through the muscle or to a longer duration of the period of inexcitability (refractory period) which accompanies and immediately follows contraction. Once fibrillation has ceased, an opportunity is afforded the normal peacemaker of the heart to regain control of the auricular contractions.

In man auricular fibrillation may be transient or persistent. Previous to the introduction of quinidin therapy, an auricular fibrillation which had persisted for more than two weeks usually continued for the remainder of the patient's life. For this reason, Hering called it the permanently irregular pulse (pulsus irregularis perpetuus). We now know that fibrillation may occur in paroxysms and that even the more persistent form is frequently converted into a normal rhythm when quinidin is given. During fibrillation, therefore, the normal auricular rhythmicity is not entirely abolished, but it lies dormant, being masked by the irregularity.

Auricular flutter is a condition closely related to auricular fibrillation. In flutter, the auricles beat regularly at a rate of 250 to 350 per minute, and the ventricles follow, usually in a one-to-two sequence. Flutter sometimes passes into fibrillation, particularly after the administration of large doses of digitalis. The reverse change sometimes occurs under the influence of quinidin. Lewis and his associates [22] showed that flutter, like fibrillation, results from circus contractions in the auricles. In flutter, the path of the circus contraction wave is more regular and longer, probably encircling the mouths of both venae cavae. The secondary waves passing out from the main circuit are also more regular in flutter.

Auricular fibrillation is encountered most frequently in two groups of patients—those who show degenerative changes in the heart muscle, and those with chronic rheumatic endocarditis, accompanied by mitral stenosis. The relative frequency of these two causes varies in different statistics, being influenced, apparently, by the incidence of rheumatic fever in the population. Thus, Lewis,[19] drawing his figures from England, where rheumatic fever is common, attributed 66 per cent of his cases to this infection, whereas Levine,[18] in Boston, found a clear rheumatic etiology in about one-third of his cases. German statistics [34] gave a frequency similar to the Boston figures. In San Francisco, auricular fibrillation of rheumatic origin appears to be even less frequent. The age incidence of auricular fibrillation varies with its etiology. Thus, Levine found that the average age of patients with a history of rheumatic fever was 37 years, whereas the average age of those with no history of rheumatic fever and with no clinical signs of rheumatic endocarditis was 58 years. Hyperthyroidism is a recognized cause of auricular fibrillation, but is less important than either of the two just mentioned. Willius and Boothby [42] found this irregularity with equal frequency among patients suffering from exophthalmic goiter, and patients with toxic adenomata. They state that it is more apt to occur in cases of long duration and that it is not particularly frequent in acute cases, even though the metabolic rate is high.

Auricular fibrillation is present in about half of the patients admitted to hospital wards with advanced cardiac decompensation. Also many patients with auricular fibrillation show clinical evidence of serious heart failure. At autopsy anatomical changes in the heart are common. For these reasons the presence of auricular fibrillation always suggests organic heart disease. Yet there is no convincing evidence that the physiologic changes underlying fibrillation necessarily depend upon serious organic heart disease, and various clinical observations indicate that in some individuals the opposite is the case. Thus, some patients with auricular fibrillation show no other clinical evidence of heart disease, and patients who have suffered from paroxysms of this disorder may show no abnormal signs between the paroxysms even on the most painstaking examination. Furthermore, paroxysms of fibrillation have developed in connection with hydrogen sulphide poisoning,[31] the administration of digitalis,[40] or even with deep breathing.[35] Thus, it appears that, while fibrillation usually complicates serious cardiac disease, it may also occur in individuals whose hearts on clinical examination appear to be normal save for the occurrence of this irregularity.

Auricular fibrillation influences the cardiac efficiency partly by altering the ventricular rate and rhythm, and partly because the auricles no longer expel blood into the ventricles. Of these, the change in the ventricular rhythm is usually the more serious. When the ventricles beat rapidly and very irregularly, certain systoles expel so little blood into the aorta that no pulse is produced at the wrist. The energy of these systoles is wasted, so far as the

propulsion of blood is concerned. As a measure of these ineffectual ventricular contractions, we may take the difference between the number of beats counted over the apex and the number of pulse beats felt at the wrist.[15] Where this "pulse deficit" is large, the heart must do an unusual amount of work to sustain the circulation. Digitalis produces its striking effects in this class of patients because, in addition to its other actions, it markedly slows the ventricles and reduces the pulse deficit.

The importance of auricular systoles for the maintenance of the circulation has been variously estimated. Ventricular filling is normally completed by the auricular systole, and in auricular fibrillation this final addition is absent. The amount of blood that is normally expelled into the ventricles by the contraction of the auricles has been variously estimated. According to Wiggers and Katz [41] from 18 to 60 per cent of the total blood entering the ventricles is thrown in by auricular systole. The effect of a loss of auricular contractions is difficult to estimate, but it would appear that in mitral stenosis the loss is particularly serious, for in this condition the contractions of a hypertrophied left auricle appears to be of special importance in forcing blood past the narrow mitral orifice.[14]

Among clinicians auricular fibrillation is commonly regarded as a serious cardiac disorder, yet some [4] have protested against this view. In a statistical study, White [39] found the death rate among patients with auricular fibrillation no higher than the death rate among cardiac patients with a normal rhythm. The possible fallacies underlying such a statistical comparison need not be emphasized. As clinicians we are interested in the question whether an individual patient whose auricles are fibrillating can be improved by a restoration of the normal regular rhythm. This question has assumed practical importance, because we now have in quinidin a drug which will restore the normal rhythm in a certain proportion of these patients. It is universally admitted that where the ventricular rate during fibrillation is rapid and there is a large pulse deficit, the circulation is improved if the ventricular rate is slowed and the pulse deficit reduced. This reduction in ventricular rate may be attained by the administration of digitalis, but with persistence of the auricular disorder. It may also, in some cases, be attained by the administration of quinidin with a return of normal auricular activity. Has such a normal rhythm any advantage over an equally slow irregular rhythm? Clinical experience indicates that the results which follow a restoration of the normal rhythm vary in different patients. In some fibrillation may appear and disappear without the patient being conscious of any change in his condition. Most patients, on the other hand, experience some relief when fibrillation disappears. The sense of palpitation commonly lessens, and frequently the dyspnea improves. Objective improvement may also be demonstrated in some patients. The vital capacity may gradually increase,[3] the rate of circulation in the arm improve,[36] and the pulse tracing show changes indicating an improved cardiac output.[16] Occasional patients who have been treated for a long time with digitalis experience striking improvement when the normal rhythm is restored by quinidin.[13] Clinical studies, therefore, indicate that, while in certain patients the auricular fibrillation is incidental and does not add seriously to the cardiac insufficiency, in most patients it is disadvantageous, and in some a normal rhythm is far superior to an irregular rhythm even when the latter is controlled by adequate doses of digitalis.

Digitalis has gained its great reputation as a cardiac drug largely through its action on patients with auricular fibrillation. Digitalis does not abolish the fibrillation, but, as MacKenzie [28] showed, it exerts a marked slowing effect upon the irregular ventricular rhythm associated with auricular fibrillation, whereas a normally beating heart is little if at all slowed by the therapeutic doses of digitalis ordinarily given. In auricular fibrillation, the upper end of the His bundle is subjected to a rapid stream of stimuli (350-600 per minute). The ventricular rhythm is determined by the number of effective stimuli which succeed in crossing the bundle. Since digitalis lessens conductivity in the bundle, the ventricular rate is slowed and the pulse deficit is lessened. This is the most important cause of the improved circulation which usually follows the administration of digitalis to patients suffering from auricular fibrillation. In such patients digitalis should be given in doses sufficient to reduce the ventricular rate to about seventy per minute when the patient is at rest. This rate should be maintained indefinitely by the continued use of small doses of digitalis.

A patient suffering from paroxysmal fibrillation informed Wenckebach [38] that he could stop his paroxysms by taking large doses of quinin. Wenckebach's further experience led to the conclusion that, while paroxysms of this irregularity could sometimes be terminated by quinin, this drug was ineffective against the persistent form of fibrillation. W. Frey [10] studied the effect of various cinchona alkaloids upon patients with auricular fibrillation and concluded that quinidin, the most effective of these, produced a normal rhythm in about 50 per cent of those suffering from persistent fibrillation. In a later analysis of his cases, Frey [9] pointed out that quinidin was more apt to be successful when compensation was fairly good and when the fibrillation was not of long standing (less than a year). Such factors as the age and sex of the patient or the nature of the underlying heart lesion made little difference in its effectiveness. Later statistical analyses have confirmed these conclusions. Fifty per cent or more of chronic fibrillators have recovered, for a time at least, a regular rhythm after quinidin.

Lewis and his associates [25] analyzed the cardiac action of quinidin and showed that this drug depressed the vagus and at the same time, through direct muscular action slowed conduction and lengthened the refractory period of the muscle. In discussing the circus theory of fibrillation, we pointed out that fibrillation ceases when the head of the advancing wave finds no excitable tissue in front of it, and that this might be due either to a more rapid conduction of the wave or to a more prolonged refractory period. According to Lewis, quinidin stops fibrillation through prolonging the

refractory period; for its effect in slowing the conduction would tend to have the opposite effect. During its administration to patients, the rate of fibrillatory movement is reduced, and if this rate fall below 300 a transition to the normal rhythm usually occurs.[20] Quinidin commonly increases the ventricular rate during auricular fibrillation, partly because of the vagus paralysis and partly because, in accordance with recognized physiological principles, the slower fibrillary rate permits more stimuli to cross the His bundle.[21] In some patients the depressing effect of quinidin upon the His bundle predominates, and ventricular slowing or even complete heart block, after the drug have been reported.[43]

We have already discussed the clinical results of a change from auricular fibrillation to the normal sinus rhythm—in some patients no great effect is apparent, in most there is a definite improvement, while in a few the results are brilliant. In practice, the possibility of obtaining permanent improvement from this drug must be carefully balanced against possible harm from its use. Aside from such unpleasant and disquieting disturbances as nausea, headache, tinnitus, depression, palpitation, and tachycardia, it may for a time lessen compensation, and occasional fatalities have occurred during and shortly after its administration. These fatalities have been due in part to the liberation of emboli from clots present in the left auricle; in part they appear to have been due to changes in the ventricular rhythm such as numerous extra systoles or ventricular fibrillation [17] or to a depression of the contractile power of the heart muscle. In practice, one must also bear in mind that fibrillation frequently recurs, sometimes quite promptly after the normal rhythm has been re-established and that this recurrence is more common in cases of long standing and in those with decompensation.[37]

The following is a conservative estimate of the indications and contra-indications for the use of quinidin in auricular fibrillation. First, quinidin should not be given if emboli have occurred. Second, any decompensation should be treated by the usual measures before giving this drug, and unless the decompensation can be improved quinidin should be given cautiously or not at all. Third, quinidin is particularly indicated in fibrillation of recent onset and where signs of marked decompensation are absent, but it may be tried even when the fibrillation has persisted for a year or more. Fourth, if normal rhythm is re-established, it is advisable to continue small doses of quinidin for weeks or months for the purpose of avoiding a return of the irregularity. Given according to these indications, the danger from quinidin is slight and the benefits from its use are often striking.

The story of auricular fibrillation exemplifies the benefits which may follow the application of physiologic methods and physiologic conceptions to the practice of medicine. Mackenzie's use of the polygraph and the later use of the electro-cardiograph differentiated this irregularity from the others commonly met in the clinic. Further study of this group of patients demonstrated their susceptibility to digitalis, and taught us to administer this drug with greater precision. Finally, the chance observation that quinin might terminate a paroxysm of irregularity could hardly have borne fruit, had our knowledge of the irregularities not progressed to the point where a careful study of other cinchona derivatives could be made on other types of fibrillation.

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Sun and Moon Oil and Ointment (Propaganda for Reform, reported by Council on Pharmacy and Chemistry of the A. M. A.)—Alfred W. Lowrie of Hartford, Conn., an alleged divine healer, mixes religion with his quackery. In a publication by him he is said to have died once, and while dead was ushered into the presence of the Supreme Being. While in heaven, Lowrie was presented with the "key to knowledge" to be used by him when he returned to earth. After Lowrie's visit to heaven, he seems to have started making what he is pleased to call "Sun and Moon Sacred Ointment" and "Sun and Moon Sacred Anointing Oil." The ointment is claimed to contain "vibrations of life from the radio-activity of electricity, magnetism, electrons, and atoms." The ointment is to be used externally and internally for a variety of ailments. The A. M. A. Chemical Laboratory found the composition of the ointment to be essentially: petrolatum, 75.50 per cent; saponifiable fat, 17.20 per cent; methyl salicylate, 4 per cent; "dirt," 0.15 per cent; oil of sassafras, water and undetermined, 3.15 per cent. The "sacred oil" is for external and internal use. It was claimed to have no equal for tired and sore feet, rheumatism, neuritis, lameness, hardening of the arteries and nerves, broken bones, skin diseases, and other conditions. The A. M. A. Chemical Laboratory found the oil to consist essentially of fixed oil (probably olive oil) 87 per cent, methyl salicylate 5 per cent, oil of sassafras 1 per cent, alcohol 2 per cent, water and vegetable extractive 5 per cent.—Journal A. M. A.

Castela Nicholsoni in the Treatment of Amebiasis—Doctors G. R. W. French and A. W. Sellards (U. S. Naval Bulletin) treated sixteen cases of long standing amoebic dysentery during an exacerbation with a preparation of castela nicholsoni. The therapeutic results varied widely. In about one-third of the cases the immediate results were almost spectacular, the symptoms and amoebae disappearing in two or three days; in another third of this group the same improvement occurred, but much less promptly; in the remaining third the results were poor. In contrast to emetine and its derivatives, preparations of castela can be administered easily and pleasantly by mouth. It is an excellent stimulant to the appetite, and patients tend to gain rather than lose weight while under treatment. In our opinion, castela, when properly used, is equally or slightly more effective than emetine in amoebic dysentery. Moreover, it can be employed without risk attendant in the use of maximal doses of emetine. Neither drug has proved adequate in chronic amoebiasis, though castela merits much more investigation.

COCCIDIOIDES OF THE CENTRAL NERVOUS SYSTEM

By MYRL MORRIS, M. D., San Francisco
(From Children's Hospital, San Francisco)

Coccidioidal granuloma probably does not involve the central nervous system primarily.

Of the geographical diseases, coccidioidal granuloma plays a unique role, being almost exclusively confined, according to our present knowledge, to a section of California, the lower San Joaquin Valley. Although the single case of Posadas (Buenos Aires), is probably identical with ours, all but one or two of the cases studied have resided in California, there having been no other cases reported from Buenos Aires. Rixford's original case, and another observed later in the same year by Rixford and Thorne (Occidental Medical Times, 1894), gave material for valuable investigation by Rixford and Gilchrist, whose monograph was published two years later (1896).

Coccidioidal granuloma, a disease caused by the coccidioides immitis, and named by Stiles of Washington from its resemblance to coccidia, is a distinct clinical entity and should not be confused with torula or blastomycotic infections. The organism presents many characteristics of a mold, and is easily demonstrated in pathological tissue, pus, and sputum. When found in tissue it is identified as a comparatively large (30 micron) spherical body which is doubly contoured with a highly refractile capsule.

Reproduction within the tissue occurs by endosporulation and never by budding. Compared with torula and blastomycosis, this is a most important distinction. In culture, on the other hand, as first demonstrated by Ophuls and Moffit, coccidioides always grows mycelia and aerial hyphae; torula never does.

A majority of cases are in the male, probably because of greater exposure. Besides the case presented below, Rixford has had another case in the female, which was one of generalized infection. In general, the clinical picture closely resembles tuberculosis in many of its characteristics. Indurated skin nodules, pulmonary lesions, or less frequently, involvement of the joints constitute initial lesions, which are differentiated from Koch's infection only by demonstration of the etiological agent. The initial lesion remains localized for years, but eventually a generalized infection ensues, resembling military tuberculosis, or acute glanders. Disseminated pulmonary tubercles, widespread suppurating subcutaneous abscesses, or a combination of both, most frequently terminate the picture. Such a generalized infection is evidenced by fever, chills, sweats, anemia, mild leukocytosis, and emaciation. Meningitis occasionally is the cause of death. Empty shells of these organisms have sometimes been found in the lungs of patients dying of other diseases, which can only be explained by the fact that the disease is not quite 100 per cent fatal.

Coccidioidal granuloma probably does not involve the central nervous system primarily. In the generalized terminal stage the basal meninges occasionally are the seat of extensive tubercle involvement, as are other parts of the body. When systemic evi-

dence of the disease is slight, or the skin lesions have healed, coccidioidal meningitis offers increasing difficulties for diagnosis. These cases, however rare, are frequently confused with other forms of meningitis.

In general, when coccidioides attack the central nervous system, the basal meninges show tubercle formation, in contra-distinction to the brain tissue proper. This pathology contrasts strongly with torula infections which have a marked affinity for both meninges and the true nervous tissues. Systemic blastomycosis (regional around Chicago), in addition to deep and superficial ulcerations of the skin, and tubercle—like nodules in the viscera—involve the tissues of the cerebrum and cerebellum, and this condition contrasts also with coccidioides by the involvement of the deeper tissues of brain. Torula has been isolated from the spinal fluid.

In our case the organism was probably obtained from a minute piece of pia-arachnoid loosened by the needle during the fourth spinal puncture. This procedure preceded the operation, but a positive report was not obtained until some weeks later.

CASE REPORT

A. R., female, age 5 years, American. Entered Children's Hospital, San Francisco, May 25, 1920. Expired September 2, 1920.

Complaint — Referred by Dr. Edmunds of Le Moore, with a diagnosis of tubercular meningitis.

F. H.—Mother alive and well. Father suffering from active tuberculosis. (Father's sputum has since been carefully examined by Dr. Rixford; acid-fast bacilli were found but no coccidioides). No brothers or sisters.

P. H.—Normal as to birth, nutrition, and development. Has suffered from no diseases which have any bearing on present illness.

P. I.—Three months previous to entrance in hospital, the child had a rash, which was diagnosed chickenpox and scarlet fever. There was no history of a subsequent exfoliation, however. Shortly after this the patient complained of severe frontal and occipital headaches, with frequent attacks of vomiting. There was no dizziness, no convulsions. About two weeks after this acute illness, the child could walk only with the aid of a nurse, and stood only with support. Within the next two months the child became stuporous and dull, and acted as if she had lost her sight. There was progressive muscular weakness in both arms and legs, with a resulting spasticity. Subsequently, there has been definite increasing pain on movement of the limbs. About this time the child began to have mental relapses, during which attacks she seemed to live in the past. She was definitely disoriented as to person, time and place, and could not answer questions intelligently. Her sight became progressively worse. The child gained weight continually. The back, arms, and legs showed progressively increasing abnormal hairiness.

Physical examination revealed a semi-comatose, anemic child, very hyperaesthetic to touch and very irritable if disturbed. The extremities were flexed, the right more than the left. Both feet were hyperextended; left hand was held in obstetrical position. There were occasional involuntary twitchings of both extremities. Abnormal hairiness of face, back, and limbs.

Head—Pupils dilated, both reacted slowly to light. Left pupil larger than right and irregular in outline. Slight ptosis of right lid and a lateral deviation of right eye. No mystagnus. Eye grounds: Swelling of left nerve head, with definite nasal pallor. The right background was less abnormal. Hearing: Diminished on the right. Definite right facial paresis: Spontaneous trismus, with marked grinding of the teeth.

Lungs—A few crepitations at right apex, but these were decidedly inconstant. Breath-sounds not abnormal over this area. The remainder of the lungs were clear.

Heart—Negative.

Abdomen—Liver and spleen not felt. No abnormal tumor masses noted. Skin clear.

Extremities—No muscle atrophy, occasional involuntary twitchings. Both legs spastic. Feet hyperextended. Patellar and ankle clonus marked.

Reflexes—The biceps, triceps, and radical periostrial were markedly exaggerated. Left abdominal reflex increased. Kernig's sign positive on the left. Babinski's sign positive on the left. Knee-kicks hyperactive, more so on the left.

Laboratory — Blood Wassermann, negative; urine, negative. Blood: Hb. 54 per cent; R. B. C. 4,000,000; W. B. C. 12,000. Neut. 62 per cent. Lymph. 38 per cent Eos. 0. Bas. 0. Von Pirquet: Negative. Spinal puncture: Pressure increased. Cell count, 251. Lymphocytes predominating—atypical web. Wassermann, negative. Globulin plus. No organisms seen. Four punctures in all were made.

X-ray — Skull: Generalized intracranial pressure. X-ray—Chest: Slight enlargement of bronchial root glands, with increased thickening of bronchial markings toward both tops, especially the right.

Operation four weeks after entrance; Dr. Rixford. Osteoplastic flap made in right temporal region. Increased pressure. Two indurated greyish granulomata on surface of brain, apparently on pia mater. One such, 3 x 4 mm., at the upper margin of the temporo-sphenoidal lobe and adherent to the dura was excised. Another 10 x 12 mm. in close proximity was also obtained for pathological study.

Pathological Report — Lesion from right temporosphenoidal lobe adherent to dura. Section: Nodule of dense fibrous tissue in which there are many small tubercles made up of epithelioid cells with large multi-nucleated giants cells; few small caseous spots. In giants cells many large spherical parasites with double contoured capsules. No sporulating forms found.

Coccidioidal granuloma of brain.

(Signed) W. Ophuls.

Post-operative Course—The child gradually went from bad to worse. The intracranial pressure increased and a brain hernia ensued. The patient became stuporous and dull, and lingered in this condition about two months. The temperature ranged from 38 C. to 41 C. at the termination. The child died in collapse three and one-half months after entrance, and two and one-half months after operation. Autopsy not permitted.

There are three important features connected with this case. 1. Coccidioidal granuloma rarely is noted in the female, and this case, therefore, represents the exception. 2. When the central nervous system becomes involved, it is ordinarily a feature of systemic infection. In this case, the signs of the lung involvement were insignificant and the nervous symptoms were the outstanding feature of the clinical picture. (Primary coccidioidal granuloma of the lungs is assumed in this case without pathological proof.) The connection between the scarlet rash and the chickenpox, which immediately preceded the nervous involvement, is problematical. 3. Lumbar puncture gave the opportunity to culture the coccidioides immitis. The organism was probably contained in a small piece of pia-arachnoid obtained by this procedure.

Dr. G. Y. Rusk has reported this case verbally at the Pathological Section of the California State Medical Meeting, 1922.

I wish to thank Dr. W. Ophuls for the pathological report of the specimens removed by Dr. Rixford at the operation, and Dr. Emmet Rixford for his co-operation and advice.

240 Stockton Street.

DISCUSSION

Emmet Rixford, M. D. (1795 California Street, San

Francisco)—Dr. Morris has given a very good and fairly complete resumé of the literature of coccidioides and has well described our case, in which the only demonstrable lesion was a meningitis. She shows, on the basis of finding at autopsy dead coccidioides and empty capsules in a few cases in which the patient had died of other causes, that the mortality is not quite 100 per cent. Moreover, a few cases have been observed in which coccidioidal lesions have remained local. Of such I can report two: one of the carpus and one of the sheath of the flexor tendons of a finger, in which the patients remained free of systemic infection, as far as could be determined, for a number of years.

One point has escaped attention in later publications of coccidioides, and that is that our two original cases, reported in 1894, presented two distinct types of organism. As far as I have been able to learn, all the cases reported except the second (Thorne and Rixford) have been of the same type as the first, namely, a sphere with highly refractile capsule packed full of small spores. In the second case the organism was twice the diameter of that in the first, with a much smaller number of relatively large spores distributed about a hyalin center. Perhaps more remarkable than the differences in the organism was the striking difference in clinical history of the two cases; the first, chronic, living under our observation upward of two years after the appearance of the skin lesions of the neck; the second, acute, for the patient lived but six weeks.

At first we thought the organisms were protozoa, but Dr. Welch of Johns Hopkins, to whom we sent some of the material, was not convinced. Therefore, material was sent to Dr. Stiles of Washington, at that time the foremost authority in America on protozoa. He failed to determine the biological position of the organism and named it coccidioides immitis because of its resemblance to coccidia.

With the single exception of the case of Posadas of Buenos Aires and one or two cases, about which there is some doubt as to their having lived in California, all of the patients thus far reported have lived in California, chiefly in the San Joaquin Valley. The original case was that of a Portuguese laborer who had been employed for a long time at Port Costa. I have not seen material from the case of Posadas, but presume from the description that it is the same or a very similar organism.

William Ophuls, M. D. (Stanford University Medical School, San Francisco)—I have read Dr. Morris' article with the greatest interest. Infections of the central nervous system in this disease are by no means rare. As Dr. Morris has emphasized, the disease attacks the meninges and does not involve the nervous tissue except secondarily. The resemblance of the lesions in the pia mater to those ordinarily produced by tubercle bacilli is often very striking; so much so that their real nature cannot be recognized except by microscopic examination. In other cases the involvement of the meninges is more of a chronic nature with special localization in the meninges of the spinal cord. In such cases clinical symptoms may arise which resemble those observed in syphilitic meningomyelitis, although the progress of the disease is more rapid, and the fatal termination occurs earlier.

The exact classification of the fungus producing the disease is still a matter of uncertainty. It exhibits certain close resemblance to the oidia, although it differs from the ordinary oidia in certain respects, especially in the shape and mode of development of the spores. In spite of these discrepancies, it seems advisable for the present to place the disease among the oidiomycoses as suggested by Ricketts.

Dr. Morris (closing)—It is indeed a pleasure to hear the remarks of pioneers in this field, and I wish to thank both Dr. Rixford and Dr. Ophuls.

UNSUPERVISED DIETS OF INFANTS UP TO ONE YEAR OF AGE*

By ERNEST L. BOTTS

The oustanding fault in breast-feeding is its low incidence.

The early termination of breast-feeding is dangerous to the child and is also unnecessary.

Breast-feeding is not worked for in the general hospital as intensively as it is in the teaching hospitals.

"Five essentials for satisfactory breast-feeding: (1) *Conviction on the part of the physician that the mother can nurse her baby.* (2) *Conviction on the part of the mother that she can nurse her baby.* (3) *Stimulation of breasts at regular intervals.* (4) *Complete emptying of breasts, if necessary, by manual manipulation after each nursing.* (5) *Patience and perseverance."*

The basis of this study is 663 case histories of infants seen at the Friday Health Center of the American Association of University Women, San Francisco, under the supervision of Adelaide Brown.

The previous dietary history is taken in each case, including the period of weaning from the breast and reason therefor.

The points to determine were the types of feeding employed and the physical condition of the child before it was put under medical care and supervision.

1. How are babies fed who are not under medical supervision.
2. When are they weaned.
3. What is the result to the infant.

The infants were from 3 weeks to 12 months in age. The general points worked out group themselves under the two natural divisions of (a) defects of maternal nursing, and (b) defects of artificial feeding.

Maternal Nursing — The outstanding fault in breast-feeding is its low incidence. In 327 infants where the facts about weaning were obtainable, 71.3 per cent were nursing after one week, and 33.8 per cent only at three months. (Chart I.) Compare these figures with those of 125 infants from the Stanford well baby clinic; 82 per cent are nursing at the end of one month; 64 per cent at three months; and 50 per cent at eight months, contrasted with 13 per cent only of the unsupervised babies who were still breast-fed at eight months.

The general physical condition of artificially fed infants was less encouraging than it was among those breast-fed.

The early termination of breast-feeding is dangerous to the child and is also unnecessary. A comparison of muscle tone, nutrition, constipation, diarrhea, vomiting, colds, and rickets between the breast-fed and the artificially fed infants is shown in Chart II.

Chart II—Health Comparisons between Breast and Bottle-fed Infants

	Breast-fed Per cent	**Bottle-fed Per cent
Good (muscle) tone	95	90
Poor tone	5	9
Good nutrition	96	87
Poor nutrition	4	13
Constipation	10	16
Diarrhoea	0.3	12
Colds	5	17
Eczema	3	17
Dermatitis	3	6
Other rashes	4	10
Inadequate sleep	0.5	4

* Part of a study presented as a thesis for graduation from Stanford Medical School, by Ernest L. Botts. Read by Adelaide Brown, M. D., San Francisco, at the Fifty-third Annual Session of the C. M. A.

** No breast feeding after three days.

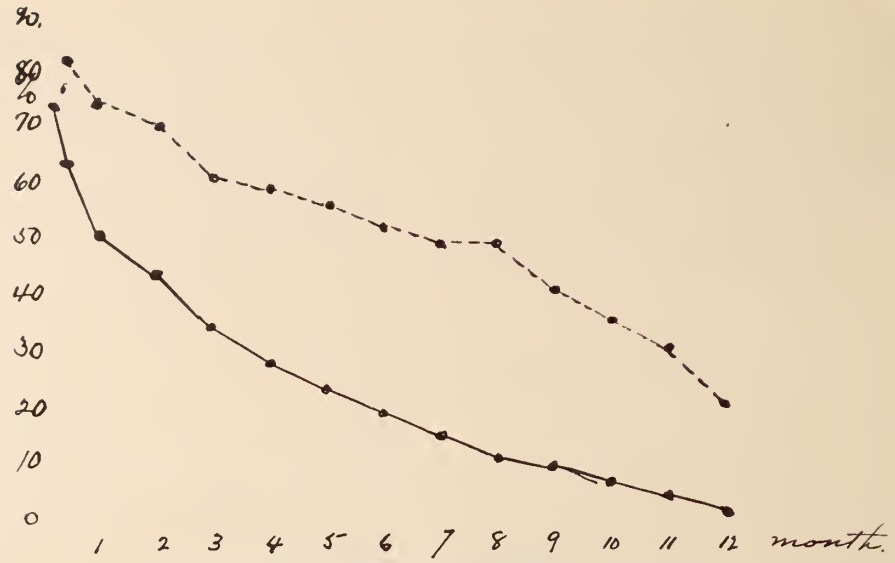

Chart I—Showing Percentage of Babies Still Breast-fed at a Given Month

Stanford Clinic—125 babies - - - - - -
Health Center —327 babies ————

Without exception, the facts emphasize the advantages of breast-feeding.

Faults in Substitute Feeding—Cow's milk, variously modified, is the general substitute. The milk supply of San Francisco is pasteurized, certified, condensed, or dried milk. As is shown in the following chart, nearly one-half of the children are fed pasteurized milk, condensed milk stands second with 21 per cent, and certified milk, which should be at the head of the list, is third with 15 per cent. (Chart III.

Chart III—Substitute Feeding

Basic Material	Per cent	Cases
Pasteurized milk	46	173
Condensed milk	21	77
Certified milk	15	55
Malted milk	6	20
Goat's milk	2	7
Dried milk	1.5	6
Boiled milk	1	4
Protein milk	0.3	1
		343
Modifiers		
Dextri maltose	40	116
Farinaceous foods	29	82
Sugars	20	56
Miscellaneous	11	32

Regarding the different kinds of milk and the modifiers, some findings are not clear-cut because the mother feeds one thing for a time and then tries something else. There were two patients in which most of the prepared foods had been tried. Such cases are not included in the table. Where any one food was used for two or three months the case is included.

Of the milk modifiers used in 340 cases, the dextrimaltose mixtures were the most popular (40 per cent), with the farinaceous foods second (29 per cent). The tendency is to increase the quantity of soluble carbohydrates in infants' milk rather than the less soluble and more complex modifiers, which require more digestive time and effort. The health of these infants fed on cow's milk under its different treatments is shown in the following table. No breast-fed case is included. The diagnosis of rickets was made in patients which showed the presence of Harrison's groove, or an especially large fontanelle for the age.

The state of nutrition for purposes of this report was determined by the Children's Bureau charts.

Muscle tone was tested by the firmness of the calf and thigh muscles and by the general firmness of the abdominal wall. The findings are shown in Chart IV.

Chart IV—Health Comparisons on Various Foods

	Breast-fed 220 cas.		Pasteur. milk 133 cas.		Certified milk 50 cas.		Cond. milk 46 cas.	
	Cas.	Pct.	Cas.	Pct.	Cas.	Pct.	Cas.	Pct.
Good tone	211	96	124	93	47	94	40	87
Poor tone	9	4	9	7	3	6	6	13
Good nutrition	213	97	123	93	41	82	40	87
Poor nutrition	7	3	10	7	6	13	6	13
Constipation	23	10	13	10	9	18	23	50
Diarrhea	2	1	6	5	..	..	2	4
Vomiting	6	3	5	4	..	..	1	..
Rickets	3	1.5	8	5	..	..	3	7
Colds	6	3	3	2	6	12	6	13
Eczema	6	3	7	5	4	8	6	13
Impetigo	4	2	..	..	..	..	4	9
Dermatitis	5	2	4	3	..	..	5	11
Other rashes	12	6	5	4	2	4	12	26

It is very evident that the breast-fed infant has better health than has the artificially fed one. Skin eruptions are less numerous. Certified milk seems to fail in maintaining nutrition. But an analysis of the cases shows that more children starting life below the average of 7¼ pounds were fed on certified milk than on any other food.

Comparison between the value of breast and artificial feeding by the average gain in weight per month, in fifty-three cases each, is shown in Chart V.

The patients in both groups were taken as received without the slightest selection. This chart presents dramatically the outstanding advantages of early breast-feeding. The data also brings out the importance of breast-feeding. It does not indicate that artificially fed infants, under a physician's supervision, do not develop on cow's milk as well as on the breast, but it does indicate that breast milk is the better food for the untrained mother to give her child.

Dilutions and Frequency of Feeding—A rough

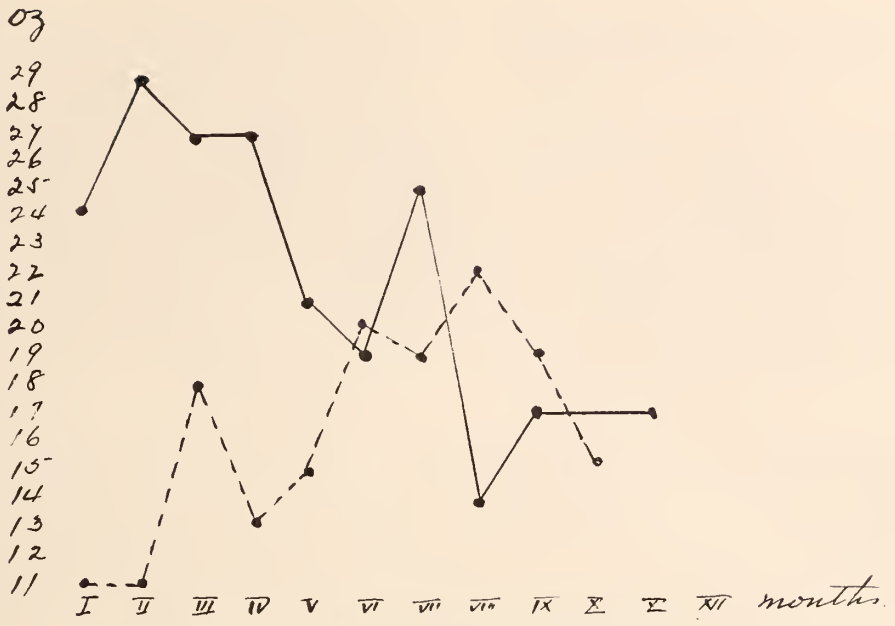

Chart V—Showing Gain in Ounces per Month
53 cases breast-fed ————
53 cases bottle-fed - - - - - -

rule for dilutions as practiced in this service is .4 for the first month, .5 for the second and third months, .6 for the fourth to sixth month, .8 for the sixth to ninth month, and whole milk at the tenth month. Using this scale as a basis for criticism, fifty-one infants were taking overdiluted formulas, and thirty-three infants underdiluted food. This may be due to the fact that the mother receives a formula on leaving the hospital and continues to use it throughout the coming months without increasing the milk element.

Comment and Conclusions by Doctor Adelaide Brown—First—Breast feeding is not worked for in the general hospital as intensively as it is in the teaching hospitals. The majority of these infants were delivered by private physicians in hospitals. Thirty-five per cent of weaned babies at the end of two weeks is not necessary and is reducible. When the three elements—the doctor, the nurse, and the mother—work to secure breast milk for every baby this figure will shrink to 15 per cent or less weaned at two weeks. Perhaps it is not out of place to quote Sedgwick's rules to secure breast feeding:

"Five essentials for satisfactory breast feeding:

"1. Conviction on the part of the physician that the mother can nurse her baby.

"2. Conviction on the part of the mother that she can nurse her baby.

"3. Stimulation of breasts at regular intervals.

"4. Complete emptying of breasts, if necessary, by manual manipulation after each nursing.

"5. Patience and perseverance."

Second—Breast feeding is more attainable under medical guidance. The depression in quantity comes in the tenth to the twenty-first day, and tact and encouragement and rest in the recumbent position, at least while nursing and also for two hours in the afternoon, have gone farther in my hands in restoring a normal flow of milk than overfeeding with liquids. Unsupervised artificial feeding impresses us, from these statistics at the best, as unsatisfactory. A complementary bottle may be given the baby, but the complete emptying of the breast at regular intervals is necessary to an adequate flow of milk.

Third—Some outline of increase in food should be given the bottle-bed baby on dismissal from the hospital by its physician. If the patient cannot afford to keep a well baby under medical supervision, she could be referred to a health center. At least a book on infant hygiene should be recommended. We have yet to see one which endorses condensed milk as an infant food, and yet 21 per cent of these babies appeared at the health center on condensed milk.

Fourth—A baby at six months on the same formula as at two weeks, increased only in quantity, is a commentary on lack of interest somewhere. A check-up by a visit at three months and five months, if suggested by the physician, would be met by the mother and gladly paid for.

Finally—Only these conclusions can be impressed on us who run health centers, either private or public; that is, that the mother needs to be taught, that she is very co-operative and teachable, and that as long as 35 per cent of these babies are weaned and 20 per cent of them on condensed milk, we can hardly feel that we, as physicians, are using all we know for the benefit of the health of the babies of the state.

"The fundamental thought in F. M. Alexander's work," says Peter MacDonald, in British Medical Journal, "is that health, physical and mental, depends upon a co-ordination of the whole body, and that disease is largely due to a failure in this co-ordination, and that this failure is chiefly due to a continuance on the part of man to rely upon instinctive control of the functions of the human mechanism; that, whereas instinct was a sound guide in the stable or slowly changing environment in which man passed his more primitive life, it is unsound in the unstable and rapidly changing environment of latter-day civilization, and for it must now be substituted a conscious control."

Scarlet Fever Toxin—Scarlet fever toxin has been furnished by the John McCormick Institute to some city and state health departments. Physicians inquiring for this material should apply to their local health department. There is an increasing demand for standardized toxin that the Drs. Dick believe should be met; however, because the toxin must be standardized on human beings, the commercial companies are going to find it difficult to standardize accurately.—Journal A. M. A.

WHAT DOCTORS SHOULD KNOW ABOUT THE STATE'S ASSISTANCE TO ITS DEPENDENT CHILDREN *

By GENEVA S. ORCUTT, San Francisco

Compared with other states, California is generous in its allowance in regard to the permissible financial holdings that an applicant may retain.

The state's first policy is to maintain the family as an independent unit with the existing parent.

I feel sure you will agree that these 4831 families present to the medical profession and to the citizens of our state a joint medical and social duty which is a fact we are obliged to accept; and that, in order to send forth a better generation, these families must have all the specialized care and amelioration which we can possibly provide for them.

How many physicians who are actively engaged in the practice of medicine are aware that the state of California is today administering financial aid to 11,726 children, involving 4831 families, and that the last legislature set aside for this purpose a fund of $2,600,000 for the coming biennium.

California has given aid to dependent children in orphanages since 1879, but only since 1913, when the Children's Department of the Board of Control was created, has aid been extended to needy children outside of institutions.

This far-reaching problem includes the child from birth to 16 years, and as about 80 per cent are California born, there is presented to every locality a special duty for the study and development of these children.

These families are distributed within the boundaries of our fifty-eight counties; therefore, not one of you can feel that medical assistance for any of these is out of your particular zone. These children have become eligible for financial help because they come within the classification of orphans, half-orphans, or abandoned children (including many illegitimate).

There has recently been added another group thus included because the wage-earning parent has been found to be incapacitated for gainful work by permanent physical disability, or is suffering from tuberculosis in such a stage that he cannot pursue a gainful occupation. Of the requirements of this group, I will make a special comment later.

The law requires that these children shall have been born in the state or have acquired a residence of at least two years. In some states this subsidy receives the title of "Widow's Pension," but in California the term is a misnomer, as the grant is specifically given as an aid for dependent children, and is sometimes given to the offspring of a very needy father who has become widowed.

The granting or denial of state aid is based upon the social and financial findings of the social workers of the State Bureau of Children's Aid, or those from well-known agencies authorized by the state to make the initial investigations. In the large cities or in counties where social work is well organized much of the investigation is done by the local agencies, leaving cases in which decisions are difficult to make, and the work of the rural districts where there are no social organizations, to be handled chiefly by the agents of the department.

Compared with other states, California is generous in its allowance in regard to the permissible financial holdings that an applicant may retain. Property up to the value of $2500, providing the site is to serve as a home, or cash up to the amount of $1000, are the limits as provided by the Board of Control. An applicant having property within this limitation may also have a few hundred dollars in the bank. These holdings serve to help the family retain their self-respect and likewise eliminate them from the pauper class.

The state's first policy is to maintain the family as an independent unit with the existing parent. When this policy cannot be executed, relatives or a licensed foster-home is the next recourse, and last oll an institution. Of our present group of 11,726, as previously stated, 10,872 are residing with the parent, guardian, or are in a licensed foster-home, leaving but 854 in child-caring institutions at the present time.

The amount of state aid allowed is $10 per child per month, and in Statute 2283, Political Code, there is a clause which reads to the effect that, in addition to the amount paid by the state, a city, county, or town may pay an amount equal to the sum paid by the state. On this platform the state and the county endeavor to share in their responsibility, and as a result there are frequently available public funds to the amount of $20 for each definitely needy case. It is regrettable that supplemental aid is not more uniform throughout the various counties, but a system of education has been broadcast which undoubtedly will elevate the deviating standards in time.

Available public funds, plus the wage-earning capacities of parents, relatives and older children, and occasional assistance from other philanthropic groups are sources from which the budgets for the state-aided families are outlined. As an example: for a family consisting of a mother and three children, $60 public funds are available, if conditions and rulings warrant the grant.

If the county does not supplement an amount equal to that of the state, the family must subsist on a smaller and perhaps an inadequate income.

The food budget for children and parents of varying ages, which Professor Jaffa, nutritional expert for the University of California, has devised, has been accepted by the Bureau as its standard for estimating the necessary outgo for food. Racial conditions are taken into consideration as a cause for variance in this regard, and those who are busy with the study of human problems maintain a wide difference of opinion on this subject. Social workers, as well as others, are frequetly inclined to feel that various groups having a low standard of living do not require an expenditure for food comparable with that of American families.

The story has been told that when Professor Miller of Harvard University once appeared before the United States Department of Labor on this subject he made the following inquiry:

"Mr. Secretary, when you and your trained staff

* Presented at the meeting of the California Association of Medical Social Workers (a section of the Technical Specialties Section of the California Medical Association), Los Angeles, May, 1924.

of statisticians get to heaven—as of course you will—I trust that you will put them to the task of determining how much milk and honey are necessary to maintain an adult saint for 10,000 years, and after you have made your calculation, remember that it requires just as much to maintain a black saint as it does to maintain a white one."

The crux of this lies in Professor Jaffa's statement that it requires "just as many calories of energy for a certain piece of work, whether it is done by a Mexican, an Italian, a Greek, or an American, and it takes as much food material of the right kind to build a pound of Mexican flesh as it does a pound of American flesh."

The food costs, as estimated by Professor Jaffa, are representative of the prices in all parts of California, as the budget is revised periodically for this purpose. Other items for decent living conditions are taken into account, and when all is assembled a plan for the family is submitted for the state's approval.

It is practically at this point that the medical profession and the social workers' paths unite. One is definitely dependent upon the other for guidance and assistance. Doctors of all specialties, clinics of all descriptions, and hospital care of every known kind are sought, realizing that without the slogan, "Perfect Health," public funds will be forever administered in vain.

The provision in the Orphan Aid law, as amended by the legislature of 1921, provides for the children whose wage-earning parent has been found "to be incapacitated for gainful work by a permanent physical disability or is suffering from tuberculosis in such a stage that he cannot pursue a gainful occupation." For the first group, namely, the physically disabled, the department has been obliged to make certain rulings and devise standards which would serve as a guide to all concerned. Since the passing of this amendment of 1921, the families of 112 cases have been aided, involving 397 children. In thirty-two of these families the children have also received medical attention. It was deemed that the disability must be permanent or complete and based on a diagnosis of a physician, preferably one connected with an accredited health center clinic, or hospital.

Many inquiries have been made regarding the possibility of granting aid to temporarily incapacitated fathers, or to fathers permanently but not completely incapacitated. Because of the difficulty of adequate supervision that would confront the state, the Board felt that such cases must be subject to local supervision, which can keep a constant check on financial and health conditions. Designated as eligible have been cases of blindness, paralysis, locomotor ataxia, carcinoma, arthritis, cardiac, nephritis, epilepsy, syphilis, encephalitis and leprosy. The present number of current incapacitated cases is 87, making eligible for aid 276 children under the provisions of this clause. In isolated counties the granting of state aid has often, subsequent to the visit of the agents, meant hospital care for the father and preventive plans for other members of the household. Long years of suffering and of hardship involving neglect of children and serious difficulties for mothers have, through the fulfillment of the intent of the act, suddenly culminated in a hopeful outlook and a certain income.

The other clause of the constitutional amendment, as previously stated, applies to the children of fathers suffering from tuberculosis "in such a form that they cannot pursue a gainful occupation." The necessity for this provision was brought to light by the first statistical findings of the Children's Department, when it was ascertained that 27 per cent of all deaths of parents of dependent children were due to the white plague, and that, in the majority of such cases, parent and children had been in contact until the patient was in an advanced and communicable stage of the disease. A vicious circle of dependency and illness was obviously being formed. In formulating its rulings here, the Board of Control sought the counsel and advice of tuberculosis experts, and it was concluded that to make the law effective in its ultimate purpose there must be brought about in every case a plan for the separation of the afflicted parent and his children. In many instances this has entailed much persuasion on the part of local workers and the agents of the department. In each case an alternative is offered: the admission of the father to a sanatorium or to a home where he may not be a source of infection, or the placing of the children in a foster-home or child-caring institution. County organizations at first felt that the state should take on every case of dependency due to tuberculosis, regardless of whether the plan for separation has been effected, but more and more they are acknowledging the wisdom of the Board's rulings and realizing that they are effective in bringing about a better home condition. Under this classification, 110 fathers suffering from tuberculosis have had their families aided, involving 349 children. Only one of these has been placed in an orphanage, and 91 were given special medical attention. Thirty fathers have died and aid for 106 of the above is now allowed under the half-orphan status. The present number of current tubercular cases is 80, necessitating aid for 225 children.

A large number of these were found requiring temporary care afforded by convalescent homes and preventoria. However, a greater proportion were able to remain in their normal family group. One fact is obvious: that too many of these fathers were in an advanced stage of illness and soon succumbed to its ravages.

It should be the purpose of the state and local officials to so educate the public that they shall understand that state aid will be granted when the disease is in its incipient stage, provided that a physician recommend that the parent refrain from work and provided that he conform to the rulings of the Board of Control, in every case special emphasis being placed on home care for the child rather than the father.

In a little study recently made on sixty-eight obsolete cases the findings were as follows:

29—restored to health.
32—aid withdrawn (having been granted for periods of 6 months to 2 years).
7—died.

Closely dovetailing with this part of the work came the setting aside by the legislature of the sum of $200,000 biennially to provide hospital service and treatment for needy legal residents of the state. The bill was written by the University of California Hospital in collaboration with the Board of Control, and has made available expert medical and surgical care for such baffling and difficult cases as could not be bettered or cured under the treatment of local physicians. This fund has been divided into monthly allotments and is very quickly exhausted. This fact accentuates the need of more specialized hospital care for children in our numerous county hospitals throughout the state.

We all agree that orphanage care is necessary for certain types of children, and aside from the aid paid directly to institutions, the state also licenses and exercises supervisory care over them. Again, we meet the medical profession on a common ground, for it is rightfully conceded that where numbers of children are housed together a higher standard of physical surveillance is demanded. And here may we ask for even a closer co-operation in the installation of the newer and more preventive types of care.

Orphanages also make their contribution to the study of medicine, in that they afford an excellent field for pediatric research, which in many localities is not used, hence a loss both to the physician and the growing child. We admit that child-caring institutions have been retarded in their desire for more progressive medical care, and a system of education has been necessary by state departments to encourage periodic medical inspection with its subsequent corrective work. The same may be said of proper care and control of communicable disease problems. Much propaganda has been necessary to educate those in charge relative to correct and balanced dietaries.

May it soon be a thing of the past that entrants to children's institutions will present a slip of paper from their family physician which is to serve as a medical certificate that reads: "I have this day examined Johnny and found him O. K. to enter your institution." This does not carry out the standard set by the state, and will not serve as the necessary guide to lay people conducting institutions who must be shown the necessity of the corrective follow-up work. Neither does it assist in the analysis of the physical and moral needs of such children as may come from homes where physical or social maladies have long existed. However, this sin of omission is only one of a few of which the profession may be guilty.

In its relation to the charges of our state and the bureau which dispenses the relief, you cannot wonder why we count you our paramount source of helpfulness. Every branch of your profession has been appealed to at one time or another, and from every county you have responded generously. Public health nurses, social workers of other agencies, and the directors of health departments likewise come in for their share of our appreciation. We are also cognizant of the fact that, in the majority of cases, a very limited financial reimbursement has been yours. It has been the physician who has stood by the family during the illness and death of the breadwinner, and who guided them through this emotional period, and if perhaps a bill were submitted, it would possibly be the last to ever receive consideration.

In closing, I feel sure you will agree that these 4831 families present to the medical profession and to the citizens of our state a joint medical and social duty which is a fact we are obliged to accept; and that, in order to send forth a better generation, these families must have all the specialized care and amelioration which we can possibly provide for them.

624 State Building, San Francisco.

Fatal Anaphylaxis from Hemostatic Preparations (Propaganda for Reform)—Recently a death was reported which was caused by the injection of a hemostatic preparation. It was discovered afterward that the patient was a sufferer from asthma and that the attacks were elicited even by the mere approach of a horse. Because of the importance of determining the anaphylactic possibilities of the various blood coagulants, the Council on Pharmacy and Chemistry had specimens of the following preparations examined: Coagulen (Ciba), Fibrogen (Merrell), Hemagulen (Lilly), Kephalin (Armour), Hemostatic Serum Lapenta (Hemoplastin) (P. D. & Co.), Thromboplastin (Lederle), Thromboplastin (Squibb), Thromboplastin Hypodermic (Squibb), Thromboplastin Solution (Armour), Precipitated Horse Serum (Coagulose) (P. D. & Co.). It was found that all of the specimens contained animal protein (in most cases horse or beef protein was present). In most cases the labels and descriptive literature did not state the precise nature of the coagulant. Since blood coagulants are usually administered as an emergency measure, physicians may overlook the danger and introduce these foreign proteins into a hypersensitive person. The council recommends that all hemoplastic preparations be labeled to show the composition of the product, the character of the protein present, and to contain information which will cause the physician to inquire into the patient's history to learn if hypersensitivity exists.—Journal A. M. A.

Role of the General Practitioner in Preventive Medicine — In a discussion on this subject in the British Medical Journal, Harold Kerr, M. D., says: "The general practitioner undoubtedly constitutes the first line in defense—a line with a great deal of reserve power that has never been put to use. The family doctor is in a unique position for detecting and observing tendencies to depart from the normal, and he knows, best of anyone, the family circumstances, habits and environment, and their influence upon the health of the members. The need, then, for the closest possible co-operation between him and the health department is obvious. For an example, neither the general practitioner nor the medical officer of health can prevent poverty, probably the chief cause of ill health, and certainly of its continuance. But much may be done to mitigate its asperities and consequences by the fullest possible use of existing facilities, many of them provided through the health department. Even if the general practitioner is not fully conversant with all such agencies in his neighborhood, he can always obtain information about them from the medical officer of health, if the latter is worth his salt."

Don't forget that periodic examinations followed up by adequate service is still one of the most important functions of the family physician. It requires no special paraphernalia or super-skill, and the results are worth while in the conservation of health and the prolongation of life.

REMARKS ON BANDAGING

By LLOYD A. CLARY, M. D.

It takes much practice to be able to apply a bandage properly, but it is well worth while to learn.

Bandage should stay on until you are ready to dress the part again.

It may seem that the subject of bandaging is too trivial to engage the attention of the medical practitioner. True, it is an elementary subject, taught as part of the course in minor surgery at our medical schools. Being elementary, it is a subject treated as many other elementary subjects are treated, namely, slighted—passed over as not worthy of serious thought. The consequence of this attitude is that many of our profession put on a bandage in a slipshod, crude manner.

I do not believe it is beneath the dignity of any practitioner of medicine—even the greatest surgeon—to put on a bandage; but I do believe it is beneath his dignity to put one on carelessly. Consequently, I offer no apology for presenting these few remarks designed to call attention to the art of bandaging in general and some practical features in particular.

To my mind it is lamentable that the medical student is not more thoroughly trained in putting on a bandage that looks neat, that accomplishes the purpose for which it is put on, is comfortable, and *stays* on. The same may be said of student nurses. If you do not believe that the average nurse, student or graduate, puts on a miserable bandage, just observe her work for a week around any hospital. Her efforts are haphazard to a degree.

There may be some excuse for the nurse. She is not called upon to use the bandage as frequently as the doctor, unless she be an office nurse in an office doing industrial or other accident work. A nurse so placed may be—generally is—very adept through much practice. I have seen office girls, with no training as nurses, who were very expert in this art.

As for the nurse, the fault is not so much with herself as with the management of the hospital where she trains. How many hospitals really teach their student nurses how to use a bandage properly? Again, how many supply her with proper bandages? Many hospitals buy their supplies with the idea of cost paramount. These hospitals purchase large quantities of bandages of inferior quality, little attention being paid to sizes. Ask a nurse to bring you a bandage for a finger and see how many times she brings a bandage two, two and a half, three, or even *four* inches wide—and it very likely is made of the flimsiest, wide-mesh gauze. She is not to blame—there are no narrow bandages to be found.

What does your patient think when you attempt to use such a bandage on his finger? Have you made a good impression? Perhaps you call for a knife, and with it saw the bandage in two. A ragged, frayed excuse for a bandage results. Compare your patient's attitude when your bandage slips off and he comes in next day with one he has put on himself, to his attitude when you put one on that stays and is neat and comfortable.

A patient said, "Doctor, you sure do know how to put on a good bandage." Was that compliment worth while? Was it too trivial a matter to justify the care necessary to elicit it? I do not think so. We are judged many times in the more important undertakings of our profession by just such little things.

It takes much practice to be able to apply a bandage properly, but it is well worth while to learn.

Many enlisted men in the medical departments of the army and navy can give the average medico cards and spades and still take all the tricks in bandaging. Why? Bandaging has been hammered into them by constant practice; it is considered an important subject; mistakes are criticized severely. The recruit at bandage practice who puts a bandage around a patient's neck that nearly chokes the patient is called down by his non-com. in language he surely will remember; he will not make that mistake again. A little of such drill would be good for our medical students and student nurses.

I am not going to review the rules of bandaging or go into detail as to the various forms. Any good book on minor surgery gives explicit instructions, with beautiful cuts showing how to apply spiral reversed, spica, gauntlet, T-bandages and all the others. I do wish, however, to emphasize a few things I have learned about bandaging from practical experience.

1. First, as to cost.

In this day of expensive living it behooves the doctor to economize on surgical supplies when he can. That does not mean he shoud use inferior goods. However, it is surprising the difference in cost even between the one and a half and the two-inch bandage. The one-inch bandage costs even less. I have been in doctors' offices where there was no bandage smaller than the two-inch. That bandage is, perhaps, the most useful for all purposes, if we limit our supply to one size. But there is no reason why it should be used for fingers, when the smaller sizes are better adapted and so much cheaper. A saving of from 25 to 50 cents a dozen means considerable in a year. The point is to use a bandage just wide enough for the part to be covered, and no wider. This makes for neatness, as well as low cost.

Some practitioners buy the wide rolls of bandage—24-inch—which they cut with mitre-box and saw into whatever widths they wish. That is the cheapest way to buy bandages. To my mind, however, these bandages represent economy carried to an extreme; they are apt to give a ragged, frayed appearance, with strands constantly coming off on the clothing.

2. Free-end or loose-end bandaging. (See illustration No. 1.)

In putting on a bandage one of the most important considerations is to have that bandage stay on until you are ready to dress the part again. It is very embarrassing to have a bandage slip off within a few hours after it is applied. I never have seen the point I am about to cover mentioned or illustrated in any text book; it is one of the things I have learned from experience, and I am frank to say the suggestion came from a patient.

Let us say you are going to bandage a hand and wish to start your bandage around the wrist. In place of making one or more turns around the wrist in the usual manner, if you will start with, say, six inches of bandage hanging loose—or, in other words,

start some six or eight inches away from the end of your bandage, allowing the end to hang free, make one or two turns around the wrist (one turn below and one above the loose end), continue with your bandaging of the hand and come back to the wrist in the usual way, make a turn or two around the wrist again, then tie to the loose end—*your bandage will stay on.* The explanation is simple. You have tied two ends together, one of which comes from the buried portion of the wrist turns. Consequently, that loose end is anchored in place by the turns covering it, and it keeps your upper or outer end from slipping. This loose-end method is applicable to practically all bandages. Since adopting this method I have mentioned it to a number of surgeons, but none of them had been using it.

Another advantage in leaving the loose end is in the use of a bandage for one or more fingers, where you wish to start the bandage around the wrist. In coming down to the finger make your bandage start down directly over the middle of the dorsal surface of the wrist, after a turn *above* the loose end, finish your finger bandage, then return in the same place to the wrist, pass *above* your loose end again, then around the wrist and tie. You thus have the "pull" from the wrist over the back of the hand in the mid-line. Your bandage is not sagging on either side of the hand, as it usually does if not so anchored.

3. Finger bandaging. (See illustration No. 2.)

The vast majority of our accident cases involve the hands, especially the fingers. With all our experience in dressing fingers, it seems we should learn to dress them properly.

Quite recently I had the fingers of both hands badly burned. It was necessary for me to dress my own fingers frequently, sometimes three or four times daily. I found that when I put on a bandage myself it felt much more comfortable—even stayed on better—than when applied by any one of the doctors who dressed my hands from time to time. As for comfort, the trouble seemed to be that the bandage was applied with too much tension in one or more of its turns, and the doctor sometimes hurt me by pressure while applying it. Once in a while the doctor would jump from base of finger to end, or vice versa, with his bandage in a random sort of way, and this always created uneven pressure. Of course, we all know that the hat salesman never puts a hat on our heads the way we want it on. We must readjust it to suit ourselves. Perhaps that same feeling of wanting to do things my own way had something to do with the discomfort. Still, I do not think I was excessively finicky—burned fingers are darned sore.

As for the slipping off. It seems rather ridiculous to put a bandage on a finger that is covered with ointment, and anchor the end of the bandage with a scrap of adhesive plaster. The ointment is sure to work through and the plaster's adhesive properties soon are lost. Better leave the end of the first turn loose, as described above, and tie on the dorsal surface. The knot is small and your bandage will "stay put." Thus applied, it does not have to be uncomfortably tight in order not to slip.

Another thing I noticed about my fingers. They were tied up so long that, quite naturally, they became stiff. But one finger would progress more rapidly

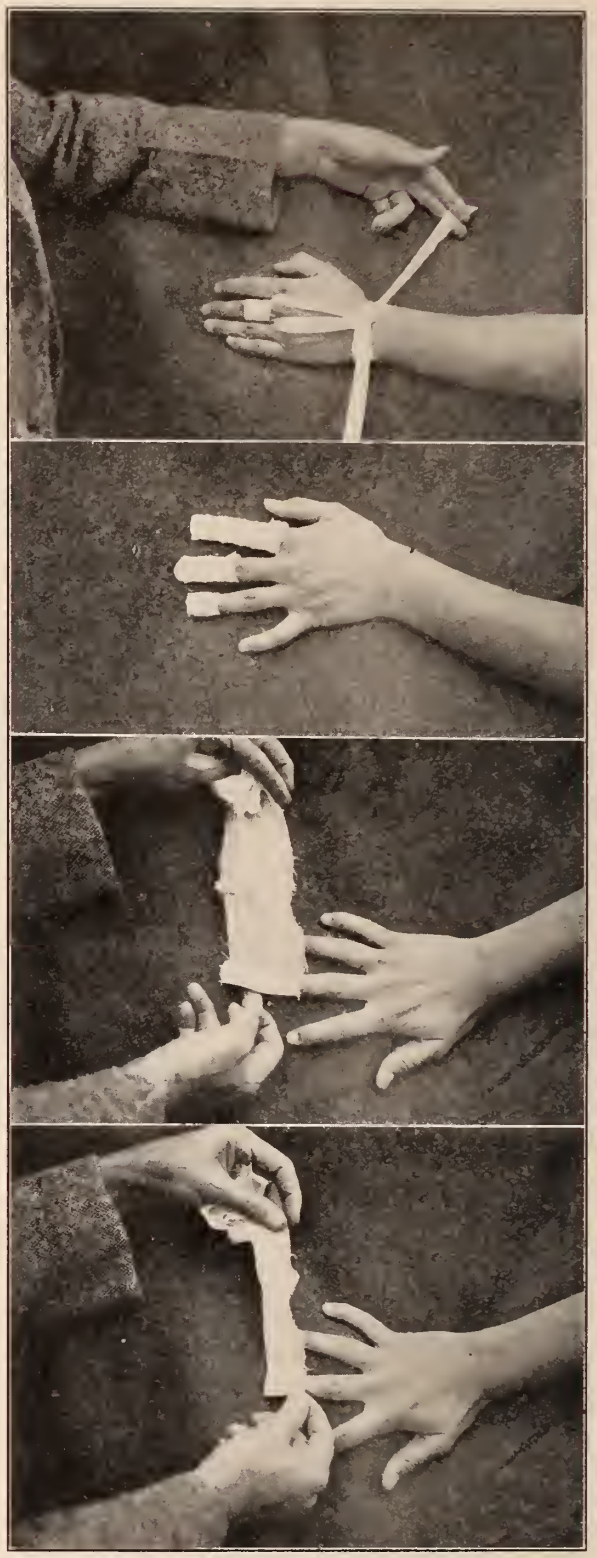

Illustration No. 1—This shows "loose end" bandaging. The end held between two fingers on the left is the "loose end," or bottom. It is the first turn of the bandage around the wrist, and, when tied to the other end, anchors the bandage firmly in place and prevents slipping. This illustration also shows how this method prevents the bandage from slipping off, sagging at the sides of the hand as the strands from the finger are both passed above the "loose end," pulley-wise, the "pull" from the wrist being in the mid-line.

Illustration No. 2—In this illustration the index finger is immobilized in both joints. The middle finger is immobilized in only one joint, the second. The "loose end" method (see illustration No. 1) is used on both these fingers. The photograph shows that this method is applica-

than its neighbor. Consequently, when two or more were included in one bandage, the finger that was healing most rapidly was being limited in motion and held back by the others. So, to allow freer movement, I started bandaging each finger separately. From that moment they became more comfortable. Two or more fingers bandaged together are held rather stiffly. The same fingers bandaged separately may be moved independently of each other, and much nerve-wracking muscular tension thereby be avoided.

Wrap up even a normal finger for weeks and months, and you are sure to get muscular atrophy and stiffness. If the finger is not normal, but is burned or infected, you have, in addition, a certain amount of destruction of tissue with scar formation. In my case the cicatricial tissue was on the dorsal surface. Consequently, it was not only difficult to flex my fingers, but also very painful, for the tissues did not "stretch" well. Quite evidently the thing to do was to begin passive and active motion as soon as possible. Bandaging each finger separately aided in carrying out these exercises. But I did not stop there. I began to crowd my bandages farther and farther towards the ends of my fingers. When healing had progressed to the point where I could leave the first joint uncovered, I applied my bandage distal to that joint. Thus I allowed motion in the first joint, and the stiffness disappeared more rapidly. The same applied to the second joint. The soreness and infection, lingering longest about the nails, necessitated keeping the nail covered longer than the rest of the finger. But there was no sense in bandaging the whole finger just to cover the nail, for, in so doing, *two* joints would be immobilized. It is no trouble to apply a small bandage around the third phalanx and make it stay there. Such a bandage does not interfere with motion, excepting to some extent in the last joint. When the bandage is finally removed the finger has regained its normal function to a much greater extent than with the customary bandage, which limits motion in both the joints.

In place of the recurrent turns of bandage over the end of a finger, which are rather bunglesome if we wish merely to cover the third phalanx, it is quite easy to make a few turns with gauze around the finger, allowing the gauze to project well beyond the end of the finger to form a cylinder of gauze. This cylinder of gauze is turned back over the dorsal surface of the finger and affords a covering for the tip of the finger. It is held in place by a small circular bandage. (See illustrations Nos. 3 and 4.)

There are well-defined rules of bandaging. The rule to "let the bandage go where it wants to go" is one of the best. But with all the rules, each surgeon will develop more or less a technic of his own in applying a bandage. My plea is to make that technic as nearly perfect as possible; to avoid slovenliness in bandaging; to give the subject the thought it deserves. The surgeon who learns to put a bandage on properly will have, as his reward, the consciousness of a job well done. In addition, he will have a grateful patient.

ble to fingers, as the knots are not conspicuous or cumbersome. With this method there is no fear of slipping off. The ring finger is bandaged distal to the second joint, to show that it is not necessary to cover the whole finger when the trouble is confined to the terminal phalanx. The subject used had short terminal phalanges, and the one-inch bandage used encroached somewhat on the second joint. However, the finger could be flexed at that joint. This picture illustrates the method advocated of bandaging the fingers separately and of crowding the bandages towards the ends of the fingers as soon as possible.

Illustration No. 3—Shows cylinder of gauze around distal phalanx and projecting beyond end of finger. When turned back, forms covering for end of finger and pad over nail.

Illustration No. 4—Shows cylinder of gauze turned back. Dressing completed by a turn of the gauze shown in left hand, followed by a few turns of narrow bandage and a strip of adhesive.

TWO YEARS' EXPERIENCE WITH MERCUROCHROME—220 IN OPHTHALMIC THERAPEUTICS.

By M. F. WEYMANN, M. D., Los Angeles, Calif.

In corneal ulcer, if infected, the mercurochrome aids greatly in getting the ulcer clean and seems to stimulate the growth of epithelium as does scarlet red on skin ulcers.

In chronic dacryocystitis where there is a mucopurulent discharge from the sac it may be changed to a simple mucus discharge in a couple of days by the instillation of the mercurochrome solution.

In summing up, one may say that in the 2 per cent solution or mercurochrome we have an unusually non-irritating and penetrating powerful antiseptic for use in ophthalmic therapeutics.

Mercurochrome is not to be thought of as a substitute for any of the well known therapeutic agents which we now possess, but rather as a valuable addition to our present remedies.

Two years ago my attention was called to the use of mercurochrome in a case of serpiginous ulcer of the cornea and the results were so satisfactory that I have used it almost continuously since that time in various other affections. Several facts were noted which may prove of value to those who have not yet used the drug extensively.

Mercurochrome is one of the dye antiseptics, and for this reason is disliked by many ophthalmic surgeons. But if one is careful in its application, staining of the outside surface of the lid may be prevented. Coating the skin surface with vaseline before application helps in this regard, or the stain may be removed by the use of two per cent potassium permanganate solution followed by five per cent oxalic acid solution as recommended by the manufacturers.

I used a two per cent solution of mercurochrome, made up fresh every week, and kept in an amber or blue bottle. Upon instilling a drop of this into the normal eye it is noted that there is no staining of either conjuctiva or cornea. Any mucus present will stain a deep red. Where the corneal epithelium is only so damaged as to stain slightly with flourescin, and the deeper portions of the cornea are normal, there will be no staining with mercurochrome. But if the epithelium is entirely denuded with the corneal substance exposed there will be a deeply stained area. Even though the epithelium be intact over an area of active deep infiltration of the substance the dye will penetrate and stain this affected area.

Clapp and Martin have discussed the use of mercurochrome in gonorrheal ophthalmia, and Lancaster et al in the pyogenic infections. Their results lead them to draw very favorable conclusions. I have found that in the acute catarrhal conjunctivitis cases, particularly those where the pneumococcus is found, the discharge clears up most rapidly under the use of the ordinary silver nitrate solution followed by the mercurochrome, after the excess silver nitrate has been washed away with normal saline. It has also

been the experience of several of the genito-urinary specialists that the silver and mercurochrome solutions seem to have a synergistic action. It is well to get rid of the excess silver for a red precipitate is formed by mixing a mercurochrome and silver nitrate solution, as is also the case with sodium biborate, cocain, atropin, holocain, and zinc sulphate solutions. Boric acid solution gives no precipitate.

In numerous patients whose refractive error was well corrected and whose conjunctiva appeared normal on inspection, although they complained of a burning discomfort or sandy feeling, it was found that the instillation of the mercurochrome solution revealed several areas in the conjunctiva which stained red. These areas were more often to the nasal side and were not due to the presence of mucus, for they could not be wiped off. From the action of the drug in staining a corneal infiltrate it seems reasonable that these areas may be slight subconjunctival infiltrations. At any rate, after the use of mercurochrome for several days the staining would disappear and the patient would become comfortable.

In corneal ulcer, if infected, the mercurochrome aids greatly in getting the ulcer clean and seems to stimulate the growth of epithelium as does scarlet red on skin ulcers. The area of a deep ulcer will stain with mercurochrome long after it has been covered with epithelium and refuses to stain with fluorescin. In these cases the clearing of the opacity seems to be hastened by the daily application of mercurochrome until there is no further staining. In one patient where the ulcer had penetrated to Descement's membrane it was found that this "glass membrane" forming the floor of the ulcer was not penetrated by the mercurochrome, that is, it remained unstained while the walls were deeply colored. No matter how long the application of the drug was continued there was never any permanent staining of the tissues as one gets with the silver preparations. When used in interstitial keratitis the cornea assumes a red stippled appearance because of the staining of the separate areas of infiltration. The penetration of a mercury compound in this condition would theoretically seem desirable and, although there was no method of control but previous experience, it seemed that the clearing of the cornea occurred more promptly when the mercurochrome was used in conjunction with the usual treatment. In phlyctenular keratitis the use of the mercurochrome did not seem to have much influence on the course of the disease.

In trachoma, except in some few patients where the mercurochrome proved to be a definite irritant and had to be discontinued for the patient's comfort, it has acted here as in the treatment of conjunctivitis, as a synergist in combination with silver nitrate. It is especially of value in those cases where there is much discharge.

In chronic dacryocystitis where there is a mucopurulent discharge from the sac it may be changed to a simple mucus discharge in a couple of days by the instillation of the mercurochrome solution. On the next day after the use of the drug the discharge expressed will have a deep red color, indicating the presence of the latter. After probing the duct a few drops of the mercurochrome solution in the saline used for irrigating through into the nose will help to prevent infection and by its color will tell if the solution passes to the nose. In order to see if any reaction would occur should the dye pass into the tissue, several minims of the two per cent solution were injected beneath the conjunctiva of a globe that was to be later removed for absolute glaucoma. There was some pain at the site of the injection and slight edema occurred. But within three days the red color had entirely disappeared and the area appeared as before injection. Since that time there have been two cases in which the solution used as above has passed out into the tissues of the cheek after probing. There was immediately rather severe pain which was controlled by cold applications, there was rather marked edema, but the entire condition cleared within three days in both cases and left no trace of any staining. The temporary discomfort of the patient was the only complication, while had a silver preparation been used, there would have been permanent discoloration.

In summing up, one may say that in the two per cent solution of mercurochrome we have an unusually non-irritating and penetrating powerful antiseptic for use in ophthalmic therapeutics. It acts as a synergist with the silver nitrate solutions, and because of its penetrating power we are furnished with an agency better than any we have previously had for the treatment of infiltrated areas beneath the epithelium of the cornea and conjunctiva. And, best of all, no permanent staining results even after its long continued use.

418 Westlake Professional Building.

DISCUSSION

A. Ray Irvine, M. D. (Westlake Professional Building, Los Angeles)—Mercurochrome has given great satisfaction to me in many cases during the past two years. In dacryocystitis the pus is soon lessened in amount and character, and many acute cases soon clear up entirely.

In pneumococcus and Koch-Weeks bacillus infections, the ethylhydrocuprein and zinc solutions still have first place, but in many forms of conjunctivitis, mercurochrome, as Dr. Weymann uses it, has proven a valuable therapeutic agent with many advantages.

I have had occasion to use it in a large series of folliculosis cases as an adjunct to the silver and zinc sulphate treatment. In those cases in which there was a considerable amount of secretion, the one per cent mercurochrome solution proved of great value.

My experience in its use in ulcers of the cornea has been much the same as Dr. Weymann's.

Lloyd Mills, M. D. (927 Citizens National Bank Building, Los Angeles)—The place of mercurochrome in ophthalmology is not yet defined, but our clinical and laboratory experience proves it to be an addition of value in the treatment of some pyogenic infections of the conjunctiva and of the tear-passages. This experience, however, also shows that mercurochrome lacks the bactericidal and serological potency of silver nitrate, which it can never supplant in the treatment of gonococcic infections. Nor can mercurochrome replace zinc or copper salts in their particular roles.

Mercurochrome appears to give the greatest service in the less virulent conjunctival infections, with or without simple ulceration about the limbus, and as a follow-up treatment where silver nitrate, strong zinc or cabolic acid cauterization, or the actual cautery, have checked severer infection of the conjunctiva and have mastered progressive and intractable ulcerations of the substantia propria of the cornea. Its virtue in so-called catarrhal conjunctivitis and catarrhal ulcers, whether of staphylococcic origin or

due to weak strains of pneumococci or streptococci, is unquestioned. A considerable experience as a reviewer of the end results of true serpent ulcers which have been variously treated by many different men, however, convinces me that precious time and more precious visual acuity too often are lost by attempting to check these virulently progressive ulcerations by instilling solutions such as mercurochrome, ethylhydrocuprein, subconjunctival injections and the like, when strong chemical cauteries, or the more effective actual cautery, should have been used with a bolder conservatism at the first evidence of intractability.

The local use of mercurochrome in infections of the tear-passages should be limited, in my opinion, to those early or chronic cases where ulceration, or its resulting stenosis, are too far advanced and where no great tubal thickening has occurred. Here infection may be checked and stricture prevented by the careful use of sounds when the infection is overcome, and only then. If sounds are passed forcibly and strictures are divulsed or false passages created, mercurochrome naturally will pass into the surrounding tissues. If irrigation seems indicated after such severe instrumentation (and it usually is not) I prefer to use mercuric cyanide rather than a solution which is so vividly dramatic in its subcutaneous appearances as is mercurochrome. In fact, in the majority of cases of chronic dacryocystitis irrigations of any sort can seldom be more than palliative and recurrence is usually merely a matter of time, as the mucous tube is thickened, stenosed and usually is impossible to keep patent for any long period. In such cases mercurochrome is of particular value as a preparation for the needed extirpation of the naso-lachrymal duct.

Dr. Weymann's observation that mercurochrome increases the effect of silver nitrate is of great interest and value, and his application of the remedy to the lesions of interstitial keratitis with benefit is worthy of extended trial and study.

Howard Black (627 University Avenue, Palo Alto) —I have used mercurochrome for about two years and feel that it has an established place in ophthalmic therapeutics. My preference is for a one per cent solution except in the more severe infections, such as gonorrheal ophthalmia, where a two per cent solution is used. In cases of acute catarrhal conjunctivitis, especially where there is a good deal of discharge, I have found the home use of mercurochrome solution a great help, but never as supplanting silver nitrate solutions, which are still my sheet anchor. I believe with Dr. Weymann, that in such cases the mercurochrome and silver nitrate solutions have a synergistic action. In gonorrheal conjunctivitis, of which I see but few cases nowadays, I am sure mercurochrome in two per cent solution, instilled every hour or two, in addition, of course, to the office use of silver nitrate, has definitely shortened the period of active inflammation and lessened the likelihood of corneal complications. In cases of trachoma with much secretion I have found that mercurochrome enhances the effect of silver nitrate, the latter being used in four per cent solution every third day by the "dry method," and the mercurochrome used at home several times a day. In some cases of folliculosis I have found mercurochrome very helpful, following the four per cent solution of silver nitrate.

In recurrent sties mercurochrome is of value in permanently clearing up the condition when used in one per cent solution in conjunction with hot fomentations during the day and applied as a one per cent ointment with massage to edges of lids each night. The same strength ointment is useful also in some stubborn cases of marginal blepharitis.

My use of mercurochrome in affections of the tear-passages has been limited to cases of acute decryocystitis, some of which it has cleared up very quickly, and to those mild chronic cases where a slight amount of mucoid secretion persists despite a sufficiently patent canal as result of probing. In such cases the injection into the sac of a one per cent mercurochrome ointment once or twice weekly and the home use of mercurochrome solution have nearly always proved successful in finally clearing up the condition.

In infected corneal ulcers I never delay the use of chemical cauterants or even the actual cautery, but am very fond of the home use of mercurochrome solution if the eye is treated by the "open method," or by filling the cul de sac with one per cent mercurochrome ointment if the eye be tied up.

I find myself using mercurochrome more and more in place of the time-honored bichloride where an ointment is required in corneal injuries, after the removal of foreign bodies, etc. I think by this change I am getting quicker healing and less permanent opacity, thus being in accord with Dr. Weymann's statement as to the value of mercurochrome in clearing corneal infiltration. In the recent corneal opacities following injury or the "tail-end" clearing of a case of interstitial keratitis I am in the habit of having the patient apply the one per cent mercurochrome ointment with massage once daily. I admit that the staining of the skin when mercurochrome is used in this way is rather annoying to fastidious patients, but if its need is explained, few will make complaint.

Dr. Weymann (closing) — I agree that mercurochrome is not to be thought of as a substitute for any of the well known therapeutic agents which we now possess, but rather as a valuable addition to our present remedies. In the serpiginous ulcers the advancing portion must be halted by destroying the pneumococci in the substance of the cornea, preferably by the thermophore of Shahan, before relying on a solution of mercurochrome to clean up the area. I have never found the two per cent solution more irritating than the one per cent, and have found the former more efficient in its action. As mentioned by Dr. Mills, the solution is ideal for pre-operative antisepsis. I am quite in accord with Dr. Black when he says that he prefers the use of mercurochrome to that of mercury bichloride as I think it is less irritating and more effective as a preventive of infection.

Necessary Scope of the State's Regulation to Make All Doctors Competent—Harry E. Kelly of the Chicago bar, in his article on Regulation of Physicians by law, says: "The state should go no further in restricting the occupation of the physician than necessary, for freedom of action is the goal of the law. What is the least that the state may do in this respect? It is apparent that, logically, it may do nothing less than make it impossible for any person to hold himself out professionally to the public as a healer of any kind until he has demonstrated before some legally constituted authority ample knowledge of the structure and functions of the human body, of its various organs in health and disease, and of all of the valuable remedial agencies known to the world, and prohibit any person from holding himself out as a healer of diseases who has not so demonstrated his ability to discover, within the reasonable limits of the advancement of science, the nature of the disease with which human beings are commonly afflicted, to care for his patients in a scientific manner, and to recognize and prevent the spread of contagious diseases. Manifestly, the state has done nothing until it has thus supplied a doctor with such scientific knowledge and skill."

"Few human passions are stronger than vanity, and there are not many men whose love of truth is so compelling that they can stand up and confess to their fellows that the studies to which they have devoted many years are futile," says Major Greenwood (Lancet).

"Jealousy," says Joseph Collins in The Bookman, "instead of being the exaggeration of one of the most uplifting passions of men, is a pathological condition which fits the possessor for a psychopathic ward and the object for a sanatorium."

CLIMATE IN PULMONARY TUBERCULOSIS *

By CARL R. HOWSON, M. D., Los Angeles

Some very sick patients recover in all climates, however bad, and some patients with apparently slight involvement and favorable prognosis go steadily downward in all climates, however good.

Given the proper care and comforts, climate may in a given case be a determining factor.

It is to be borne in mind that climate is a non-specific remedy, and like all non-specific remedies, acts on the disease through the patient.

The value of the much-lauded pine trees depends chiefly upon the olfactory stimulation by the fragrance imparted to the air in their vicinity.

Precipitation is not of much importance excepting as it affects humidity.

Humidity is of great importance.

A certain proportion of patients derive benefit from sun baths.

Most patients do best at an altitude between 500 and 3000 feet above sea level.

There is not and cannot be an ideal climate for all cases.

The keynote of success in the treatment of tuberculosis is individualization.

Climate cannot take the place of rest, proper food and care, but given these, climate is of great value and may be a determining factor.

"False ideas die hard in the profession."

The care of the patient in the home should always claim first consideration.

In regard to no detail in the treatment of tuberculosis has there been so much controversy as the matter of climate. The time is not long past when it was considered the most important factor, transcending even rest, good food, hygienic surroundings, and the ordinary comforts of life. As a result of the many failures which followed the sending of all patients to certain favored localities, a reaction set in, and the value of climate was discounted to an excessive degree. We have today in the profession representatives of both viewpoints. The physician who believes that climate is all-important, and who lives in the region which he believes to be ideal (usually where he himself has secured arrestment of a tuberculous infection), maintains that all his tuberculous patients should remain there. He who holds the same belief, but who does not live in what is his ideal of climate, prescribes a move to that ideal location immediately the diagnosis is made. That also is very frequently the place where at some time in the past he himself has recovered from the same illness; if he lives in the East, it is likely to be some resort in the West or South—in Colorado, New Mexico, Arizona, or Southern California. If he lives in Southern California, it may be in Arizona or at one of the mountain resorts that the fountain of health is to be found. The patient's financial circumstances are not always considered, and as a result we have the ever-present and pressing problem of the indigent migratory consumptive, journeying from every state in the union to the promised land, there to become a charge on the county or municipality, and all too often with only a hopeless prognosis.

On the other hand there are those who believe that climate is of no value, and that the patient might, therefore, just as well stay where he is, for if it is possible for him to secure an arrestment he will do so in one place as well as in another, and if he is doomed to a fatal outcome he cannot escape it by going elsewhere.

It is true that some very sick patients recover in all climates, however bad, and that some patients with apparently slight involvement and favorable prognosis go steadily downward in all climates, however good. Nevertheless, as in most unsettled questions, the truth is to be found between the two extremes, and I believe we are fully justified in the statement that, *given the proper care and comforts, climate may in a given case be a determining factor.*

But when we come to compare the different types of climate, confusion becomes worse confounded by statistics advanced in behalf of this or that climate, which as a matter of fact prove nothing. In every case of tuberculosis almost innumerable environmental factors and a similar variety of personal factors are involved. Age, sex, marital status, exposure to infection, economic and mental status, occupation, housing conditions, non-tuberculous complications, etc., have a very definite bearing on the activity and course of the disease. These factors are by no means even approximately constant in patients from different localities, and it is quite impossible to segregate them and make comparisons from which we can deduce the effect of this or that climate on tuberculous patients as a class.

It is to be borne in mind that climate is a non-specific remedy, and like all non-specific remedies, acts on the disease through the patient; i. e., its effect is to increase the patient's general resistance, thereby putting him in a better position to overcome the disease from which he is suffering. But we must not lose sight of the fact that there may also be a selective action on the diseased tissue itself, as, for example, irritation of an affected larynx by the extreme dryness or the dust storms of the desert, which may be very pronounced if the soil contains much alkali. Beneficial effect, probably at times on the tissue directly, is seen in the diminution of a profuse broncho-pulmonary secretion in this same climate.

In judging of a climate there is no one characteristic by which it can be rated as desirable or otherwise for the particular case under consideration. Several factors must be considered, among which are purity of air, movement of air, temperature range—both diurnal and seasonal,—precipitation, humidity, sunshine, altitude and storms. Concerning the effect of each or all of these we must confess we have little accurate knowledge, and much of the difficulty is due to the fact that a great deal of the benefit of change of environment may be psychological.

PURITY OF AIR

All are agreed as to the value of pure air and cheerful surroundings, and in a general way it may be said that a favorable climate is one that will permit of a maximum time spent in the open air with a minimum expenditure of effort. The benefits derived from the pure open air consist of the stimulation of the skin and olfactory apparatus and the absence of irritants in the form of smoke, dust, or

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bacterial contamination. The congested portions of our large cities are thus at once eliminated from consideration as desirable localities.

MOVEMENT OF AIR

Air movement is a most important factor. Too strong winds cause uncomfortable drafts, dust storms, etc., but a moderate prevailing breeze is necessary whenever the temperature is above the point at which there is a distinct stimulation because of the coolness, for unless the air is in motion at such temperatures we know the individual soon begins to suffer from depression and fatigue, whether indoors or out.

The value of the much-lauded pine trees depends chiefly upon the olfactory stimulation by the fragrance imparted to the air in their vicinity. No doubt there is in many cases also a strong psychological element due to the associations and recollections of pleasant times spent in the past amidst similar surroundings and odors—the restfulness of solitude, the soughing and gentle roaring of the wind, and the slippery, yielding crunch of the needles under foot.

TEMPERATURE

In considering temperature we have to take into account two elements—maximum seasonal temperatures and diurnal variations. Extremes of temperature are undesirable when they interfere with the patient's being out of doors. Most patients do better in a temperate climate, but there is a wide individual variation when it comes to tolerance of extremes. Few tolerate the extreme heat of the desert in the summer, but these few may show their greatest improvement during the heat. Those with low vitality do not do so well in the cold climates, but as a rule the cooler the climate, without going to extremes, the better patients will do so long as they can react; that is, so long as they are comfortable. It is a matter of frequent observation in sanatoria in the colder climates that the average patient makes his greatest gain in winter. While the stimulation of the cold may be responsible in part for this, it is probable that other accompanying factors are of more importance, viz., the bright sunlight and the clarity and purity of the winter air. There should be a sufficient variation between day and night to be appreciable and stimulating, but not sufficient to unduly tax the individual's vitality.

PRECIPITATION

Precipitation is not of much importance excepting as it affects humidity. It is possible to have a fairly heavy precipitation with low humidity most of the time. This is particularly true of the colder climates in winter. It has been said of Saranac Lake that any day it does not rain it snows, and that the reason their patients do so well after leaving is because they always go to a better climate.

HUMIDITY

Humidity is of great importance, and the first requirement of a climate is usually that the relative humidity be reasonably low. There should be very little fog, especially of the heavy so-called low fogs which are frequent near the ocean, although this requirement, as practically every other one which may be mentioned, is subject to definite exceptions in certain cases. Some of the patients with marked fibrosis and scanty, tenacious secretion may obtain great relief from an irritating and intractable cough in a region of higher humidity. The combination of high humidity, high temperature and slight air movement is practically never desirable, because with such a combination the evaporation of perspiration is inhibited, body temperature and metabolism are increased, the pulse rate is increased, vasomotor tone and blood pressure are decreased, and there is markedly decreased ability for muscular exertion. It is astonishing how high the temperature, and even the relative humidity, may go without discomfort, providing there is at the same time a constant wind of moderate rate. The extreme dryness of the desert is favorable for most cases with marked bronchitis and profuse expectoration. It is not so good for those with scanty tenacious secretion above referred to or with advanced laryngeal involvement. The condition of the nasal mucous membrane must also be considered, for many patients suffer from "catarrh" in one form or another; those with the dry forms may find the desert air extremely irritating and tending to induce marked nasal obstruction.

SUNLIGHT

We know little about the effect of sunlight in pulmonary tuberculosis, but a certain proportion of patients derive benefit from sun baths. Unfortunately the ratio is not so high as in other forms of tuberculosis. We do know, however, that bright sunshiny days are much more cheering to the average person than dull cloudy ones, and in combating this disease a cheerful frame of mind is to be valued beyond measure.

STORMS

The effect of sudden changes in the weather has not received as much attention as some of the factors already mentioned. While, of course, storms are usually unpleasant and a detriment to any locality, it is not so much the storm itself to which I wish to draw attention as to the atmospheric changes preceding or accompanying it. We are still ignorant regarding the immediate cause of most hemorrhages, but the few careful observations which have been made indicate that the various conditions existing co-incidentally with sudden barometric changes are probably of importance as related to their occurrence in patients who are subject to them—"hemorrhage cases."

Electrical storms, not of the thunder and lightning type but characterized by or accompanying extremely low humidity and marked static conditions, are common in some districts in the Southwest. At such times individuals of nervous temperament may be very uncomfortable, the nervous system being in a state of excessive sensitiveness. Women are usually affected by these storms to a much greater degree than men.

ALTITUDE

We come finally to the great question of altitude, about the value of which so many sanguinary verbal and written battles have been fought, and con-

cerning which we are still largely in the dark. That there is an increase in the red cells and the oxygen-carrying power of the blood at altitudes is beyond question. This latter increase is accompanied by and probably due to greater pulmonary ventilation, the respirations being of an additional depth and frequency directly proportional to the altitude, thus physiologically compensating for the rarefied condition of the air. It has not yet been demonstrated that this polycythemia is of a degree which more than compensates for the atmospheric attenuation.

The dangers of deep breathing or respiratory gymnastics of any type, even in early cases, have long been recognized by most of us, but are still too frequently overlooked by many. These put upon the fibroid tissue in process of forming or already formed about the tuberculous focus a mechanical strain which may result in a rupture or tear, permitting dissemination of the more or less completely encapsulated organisms. The increased pulmonary ventilation required at high altitudes is comparable to respiratory gymnastics, and even with the patient at rest may constitute an element of serious risk. This same added exertion or stimulus may prove to be of advantage in a certain number of patients and bring about more rapid recovery, but which patients will be improved and which hindered by such stimulus is not always easily determined. The more recent the development of symptoms of activity, and the smaller the area of involvement, all other things being equal, the better suited is the case for the higher altitudes. Because of the thin air and the greater muscular effort required for the performance of work, it is difficult for ambulant patients to avoid overexerting to the point of dyspnea and excessive respiratory excursion; strict regulation of their exercise is, therefore, necessary. Patients with extensive involvement and markedly diminished pulmonary area practically always suffer from dyspnea above a moderate altitude.

In a general way, it may be said that most patients do best at an altitude between 500 and 3000 feet above sea level. Cases of chronic fibroid tuberculosis in the early stages frequently do best at an altitude somewhat higher than this. Patients in the acute stages, those with asthma or emphysema, and those with irritable nervous systems should not be sent to a high altitude. When an arrestment is secured at a high altitude, a move to a much lower one must be taken with great care. It is a good plan to make the change by stages, spending a few months at intermediate altitudes. A certain number of persons are never able to make the change without grave risk of reactivation.

It is quite apparent, therefore, that there is not and cannot be an ideal climate for all cases. There may be a climate which is ideal for the individual case. This ideal climate may, however, vary from time to time with changes in the patient's condition. There is no climate which is ideal for any sick individual the year round. A move in summer to a cooler locality, or in winter to a milder or drier climate, is sometimes advisable. On the other hand, it is most unwise for a patient to dissipate his strength making frequent changes of climate in pursuit of the elusive ideal.

In passing it may be remarked that some sections of the southern Pacific coast have a wide range of climatic conditions in close proximity to each other. Within a radius of twenty or thirty miles are to be found seaside, desert, mountain, and various intermediate climates, all of which may be experienced in a ride of an hour or two. It is possible in most cases, therefore, to fit the patient's needs and make a change without a long journey and all that it entails.

THE PROBLEM

How, then, are we to advise the patient who comes to us with the question, "Doctor, do you think a change of climate would be good for me? Do you think I ought to go to Arizona, or Colorado, or elsewhere?"

The keynote of success in the treatment of tuberculosis is individualization, and nowhere is it more urgently needed than here.

The first question to be decided is, "Is a change of climate essential?" Is the patient losing ground; and if so, are any of the climatic factors, seasonal or otherwise, such as excessive heat or cold, high humidity, high winds with irritating dust storms, etc., *present now or likely to be in the near future,* working against him. If in a section subject to fogs, does he feel worse in foggy weather, is his cough aggravated, or does he complain of throat irritation after a foggy night?

If not essential, is a change of climate desirable? How is the patient doing here, and what are his chances for securing an arrestment? If he is making good progress toward an arrestment, even though it be somewhat slow, the answer will be in the negative. It is not wise to interrupt a certainty of present progress for what is at best an uncertainty for the future, for no matter how near the ideal some other climate may be, we have no certain means of determining its effect except by actual trial. Many patients who are making slow but steady progress in one place and move to a presumably better climate to hasten matters do poorly after the change.

If the patient is not doing well, how acute is the process and how advanced? In the acute condition, rest is more important than in the more chronic, and it is seldom wise to move during this stage. If the process is advanced, has it advanced beyond the stage where anything could reasonably or *possibly* be expected to change the prognosis? If so, shall we permit or advise the patient to be subjected to the discomfort attendant upon the journey into a far country or the family to expend their resources, so often sorely depleted, in a palpably hopeless quest? Are there complications, such as cardiac lesions, which in themselves sharply limit the range of the patient's location as regards altitude or other factors.

Much information may frequently be gained by a painstaking inquiry as to the patient's previous experience in different climates. In this way we may avoid the mistake occasionally made of sending him to a place he has previously been where certain factors worked to his detriment. At the same time

one should consider carefully what, if any, changes in his condition have taken place in the meantime, for, as before stated, the ideal climate for any individual may vary from time to time, and he may now benefit by just those factors which before were detrimental.

If the change means separation from his family, will it be productive of worry or excessive homesickness, or will such a change be advantageous in getting him away from a too exacting or overly apprehensive family, from contact with his business, or from well-meaning but fatiguing friends? Will he be able to get a place in which to live? In most places the tuberculous patient is decidedly unwelcome, in many other places also accommodations are very difficult to secure. Will he be able to obtain competent medical attention? If he is ambulant and has to make his own living, will he be able to do so with a minimum of strain? What will be his opportunities for amusement and social intercourse? If adequate, will they be of the proper type? Is his temperament such that he will live as he should in the proposed locality, or will he be likely to take liberties when away from the restraining influences of his home environment or medical advisor? Other questions relevant to the individual case under consideration will suggest themselves.

And last to be mentioned, but first to be considered, will he be able to have the care he requires? If not, he had better forego the climate and keep the care, for now abideth rest, fresh air, good food and adequate medical supervision, and the sum of these is proper care.

SUMMARY

Climate cannot take the place of rest, proper food and care, but given these, climate is of great value and may be a determining factor.

It is impossible even to classify the different types of cases and select a climate for each class.

In every case the individual must be carefully studied and his reactions to the different elements determined as far as possible. His experiences in the past may be of great value, if interpreted in the light of any changes in his condition which may have occurred in the meantime.

207 West Eighth Street.

DISCUSSION

L. S. Mace, M. D. (Stockton Street, San Francisco)—The number of cases of pulmonary tuberculosis in which the therapeutic value of climate is an important factor is certainly small, perhaps 5 per cent. If we except patients with cardiac complications, certain laryngeal conditions, and asthma of the bronchial type superimposed upon a fibrotic lung tissue, I should say that climate is exactly as important in the treatment of lung tuberculosis as it is in the treatment of any other chronic illness of long duration, and no more.

To understand the reasonableness of this statement, we have only to recall the number of tuberculosis sanatoria scattered across our continent from the shores of the East River to the desert plains of the Southwest, each one of which is supposed to be situated in the most favorable location possible for the treatment of lung diseases. All of them claim unusual advantages, but I have yet to hear that any one of these is blessed with a higher percentage of arrested cases than its less favored competitors.

False ideas die hard in the profession as well as out of it, and the time has unhappily not yet come when the profession as a whole can be made to realize that the prescription of a five-hundred mile railroad ticket is not the best advice to give to the afflicted one. Such advice usually works harm to the average patient—indeed, to all of them I should say—except to a few single men and women of ample means and no family ties who can afford to spend the rest of their days flitting from one health resort to another in the vain quest for the miraculous cure, and usually wasting their precious strength gained in one sanitarium while hunting for another.

Hospital statistics, if they prove anything, prove that a consumptive can recover best at home if he can recover anywhere. If he has comfortable surroundings and intelligent relatives he can get more constant and tender care at home than anywhere else; while if finances must be considered, as they usually must, he is spared the thought that his fortunes have suffered irretrievably in what is sure to be a long, and may perhaps prove a losing fight.

Dr. Howson has written a good exposition of the value of climate, an unprejudiced and an unpartisan one which is refreshing to read. He has emphasized the value of intelligent care, which we all recognize as the factor of prime importance in securing arrest. Certainly, an agreeable climate is grateful to any sick person, but, unfortunately, its value as a therapeutic measure in lung diseases has been elevated in the minds of the laity and many physicians out of all proportion. It is an unfortunate thing for the patient when it is made to assume in his mind a value superior to the conditions of care, supervision, and financial condition.

A. L. Bramkamp, (Banning, Calif.)—So many factors, themselves variable, enter into the question of climate that it is not surprising that many minds have made much of a muddle of it.

One is likely to evaluate climate largely on the basis of his own interests and his own, often limited, observation and experience, or to accept current medical opinion, which also varies from time to time.

Dr. Howson expresses it well when he says that climate cannot take the place of rest, proper food and care, but given these, climate is of great value and may be a determining factor.

If a particular patient is doing well in the circumstances and conditions in which he finds himself, a change of climate need hardly be considered, though removable handicaps should always be eliminated.

If, however, a patient is not doing well, whether conditions be bad or good, a change should be attempted. The value just of change is great; it is always inextricably involved in the matter of climate. If now, with the change of conditions and surroundings, may be combined a change of climate, the possibility of benefit will be appreciably increased.

With a better understanding of just what may be expected of climate, appreciation of its value in the treatment of tuberculous patients will increase rather than decrease.

R. L. Cunningham (1136 West Sixth Street, Los Angeles)—Dr. Howson's paper has presented a very practical estimate of the value of climate as a feature of the treatment of pulmonary tuberculosis. I am one of those who believe firmly that there are beneficial effects attributable to climate per se, though I would not attempt to secure those advantages at the expense of good food, comfortable environment and favorable conditions of living. Roughing it on the desert as a method of treatment is no longer thought of by intelligent people, for the sacrifices involved are far too costly for any possible gain from the atmospheric or barometric conditions. Hippocrates claimed distinct virtues for certain locations, which he stated were particularly salubrious, and his verdict has held the acceptance of most medical men to the present day. A small minority would now insist that climate is a negligible factor, that a patient can re-

cover as satisfactorily in one region as in another. Successful defense of that position must be difficult.

I like the statement in Dr. Howson's paper that a favorable climate is one in which a patient is comfortable. I am convinced that pulmonary tuberculosis heals more quickly and more surely if the patient can live in comfort in the open air than if he is forced to choose between shivering out-of-doors or being house-bound for three months of the year. My conviction is the result of my own experience and observation in both types of climate. Since Dr. Howson takes this same view in his paper, I am happy to accept and commend his exposition.

Climate is one of several important factors in treatment. If a favorable climate can be had in addition to the other necessary things, it is highly desirable to secure it; if a favorable climate can be had only by giving up good care and proper food or at distressing expense, the patient would do well to forego the change.

Charles J. Durand, M. D. (Colfax, Calif.)—Dr. Howson's paper embraces very completely the salient features concerning climate in its relation to the tuberculous. The whole situation, I feel, can be summed up in "It isn't so much where you live as how you live." Proof of this is in the good results obtained by sanatoria operated in different states at the four corners of the Union whose mean average temperature, humidity and altitude are as different from one another as they are distantly separated. So that, given the alternative of a proper cure in a less favorable climate or the ideal climate wherein the patient lives without the proper regime, I think one should opine in favor of the former. In all climates the regime of the tuberculous consists in fresh air, substantial diet and rest, followed in its regular course by supervised time up and exercise. This is essential, but to be carried out intelligently there must be proper medical supervision, which is the all-important factor in the cure. If the health-seeker can find all that is necessary to accomplish a cure in a moderate climate where there is neither the exhausting heat of the desert, the hardships of the higher altitude, nor the cold of the Eastern winters, it is so much more to his advantage, as it is much easier, undoubtedly, to live the outdoor life in a temperate climate than in a cold one. The question of altitude, which Dr. Howson brought up, is very much to the point, as too many feel that the higher altitudes are the most advantageous to the tuberculous. In all reality, I firmly believe that a moderate altitude should be given the preference, for this reason: that, once the cure or the arrestment accomplished, the patient can with equal ease and security choose as his future home a higher or a lower altitude, exploding the often upheld theory that the tuberculous patient whose disease has been arrested should continue to live his life in that locality where arrest of his disease was effected.

Doctor Howson (closing)—The theory mentioned by Dr. Durand, that the individual with an arrested tuberculous process should remain in the locality in which the arrestment was secured, had a certain amount of basis on fact, due to the ill-effects so frequently observed in patients making a change. These ill-effects are due to the fact that sufficient time has not elapsed for the fibroid tissue to become firm enough to withstand the stresses to which it becomes subject in the new environment, and it not infrequently happens that it never does become sufficiently firm to withstand them successfully. These stresses may be purely mechanical, as in the case of a person moving to a much higher altitude. Or they may be of a very different character. Where the individual has been away from home and returns to the locality in which the disease first became active, those climatic conditions which originally tended to cause the activity will naturally act to cause a reactivation. The patient returning from a salubrious climate to one where the weather renders necessary more or less unhygienic conditions of living, such as close confinement with the breathing of stale or excessively dry air, is much more likely to suffer a relapse than when in the more favorable climate. On the other hand, the colloquial term "wearing out a climate" expresses a very important possibility, and one which, as I have already stated, must be kept in mind. It may apply to the individual with an arrested process, as well as the individual who is working to secure an arrestment.

Dr. Mace mentions several things which it is important to remember. I agree with him in the statement that "false ideas die hard in the profession," which is so well illustrated in his argument.

As I have already pointed out, statistics for or against a climate are valueless, because of the very great number of factors which have to be taken into consideration when making any comparisons regarding patients with tuberculosis. Drawing conclusions in this respect from statistical data in which tuberculous patients are considered as a whole or in groups is on a par with attempting to classify and treat such patients as a whole or in groups. The conclusions in the first instance are as misleading as the results in the second case would be disastrous. It was the attempt to establish rules for the treatment of tuberculous patients en masse that brought about the evils to which the doctor refers and the prescription of a 500-mile railroad ticket. Applied to all cases this, of course, proved to be a mistake in many instances. Realizing this, many physicians have gone to the other extreme and, after eliminating the 5 per cent Dr. Mace mentions, proceed to treat the remaining 95 per cent en masse, with the assertion that the therapeutic value of climate is unimportant. If patients are sent to distant lands indiscriminately, certainly the best results cannot be obtained. If, however, the prescription of climate is considered carefully in each individual case, many more than 5 per cent may derive marked benefit.

We have all observed patients whose condition has undergone remarkable improvement following their removal to one of the climates commonly considered to be favorable for the tuberculous. Most of us have also seen definite benefit follow a sojourn, perhaps quite brief, in a climate generally unfavorable. It in no sense implies a failure to appreciate fully the value of climate when we state that the various climatic factors and the patient's reactions to them must be painstakingly studied in each case, and that injudicious use of this therapeutic aid may bring unfavorable results.

The care of the patient in the home should always claim first consideration. Most patients must be cared for in that manner, and everything should be done to bring home treatment to the highest degree of efficiency. But here again the discussion deals with patients collectively. If all patients were ideal patients and all homes ideal homes, then the need for other than home care might be limited to "a few single men and women" as indicated. The ideal patient and the ideal family fail to co-exist with sufficient frequency to prevent a situation very commonly arising in which it is to the best interest of one or both that they be separated.

THE NEUROLOGICAL FEATURES OF ADDISON'S ANEMIA

By WILLIAM COLE, M. D., Long Beach, California

A tentative diagnosis may be established solely on neurological evidence.

The optic and auditory nerves bear the brunt of the attack in this disease.

Tingling and numbness in the hands and feet are the commonest symptoms.

Degeneration occurs in the peripheral nerves and also in ganglia.

There is apparently an endocrine phase.

Early diagnosis is all-important.

Arsenic is the drug of choice.

Treatment should be early, energetic, and persistent.

The clinical approach to Addison's anemia concerns chiefly the internist, but it is also a disease of peculiar interest to the neurologist. Twelve per cent of Woltman's series of cases complained of nervous symptoms alone, and 1.4 per cent presented neurological signs antedating the anemia. A tentative diagnosis may be established solely on neurological evidence.

The frequency of nervous system involvement in this disease is variously estimated. Hamilton and Nixon state that it occurs in 75 to 80 per cent of all cases of Addison's anemia. In Mix's series, the incidence was 60 per cent. Bramwell's series of cases showed an incidence of approximately 3 per cent. It would appear that Bramwell was far astray in his deductions when we consider the modern knowledge of this disease. The discrepancies in statistics some years ago were, no doubt, due to the fact that many cases of Addison's anemia were diagnosed as tabes, subacute combined sclerosis, or other system degenerations of the spinal cord. I have recently observed twenty-one cases of Addison's anemia, and nervous system lesions were demonstrable in 87 per cent.

REVIEW OF THE LITERATURE

In 1855 Addison first described the disease and noted mental derangement in such cases. He also observed degeneration of the solar plexus. In 1872 Biermer described the disease, and mentioned weakness and vertigo as prominent symptoms. Lichtenstern, in 1884, reported the association of pernicious anemia with tabes. There is little doubt that he confused tabes with the combined sclerosis of Addison's anemia. Lichtheim, in 1887, distinguished the combined sclerosis of Addison's anemia as a specific entity. Since then our knowledge of the nervous system lesions in this disease has progressed continually. The most able expositions on the subject are those of Russell, Batten, and Collier (1900), Bramwell (1915), Woltman (1918 and 1919), and Lurie (1919).

MENTAL SYMPTOMS

No psychosis was encountered in my series. Mental depression, querulousness, and irritability were common. Somnolence is not uncommon, even in early cases. One of my patients complained of cloudiness of the brain, a feeling of inertia and inability to concentrate. After a remission, euphoria is often noted. Apathy, melancholia, vertigo, and tinnitus often come on as the anemia advances. Osler noted delusions. Gulland and Goodall observed maniacal attacks, hallucinations and delirium occurring as terminal conditions. Greene says any form of mental disturbance may occur during the course of the disease. No striking psychical abnormalities occurred in the majority of Cabot's series. Jones and Raphael call our attention to the occasional resemblance of arteriosclerotic insanity and the mental disturbance of pernicious anemia. Barrett noted a definite paranoid trend in six of his eleven cases; also auditory hallucinations and a tendency to confabulation. Mental deterioration, as a rule, is not marked, the personality being fairly well preserved. Lurie's opinion coincides with Barrett's. Both suggest classifying these cases with the paranoid psychoses.

PATHOLOGICAL CHANGES IN THE BRAIN

The most important changes are areas of degeneration in the medulla, focal degeneration in the white matter and diffuse degenerations in the association tracts and commisures. Woltman describes destroyed areas in the cortical pyramidal cells; also in the pons and internal capsule. These degenerated plaques were closely associated with arteries, and he believes lymphostasis an important factor in their production. He also believes that these destroyed areas bear little relation to well-marked psychoses, but do account for the milder symptoms, such as apathy, depression, and delirium. Lurie found miliary foci in the pons in all his autopsied cases, and diffuse pigmentation of the nerve cells in three out of four. French found capillary hemorrhages in the meninges; also scattered petechial hemorrhage in the cortex.

CRANIAL NERVE SYMPTOMS

The optic and auditory nerves bear the brunt of the attack in this disease. Retinal hemorrhages are common, but the optic discs usually escape. In the author's twenty-one cases, the optic discs were paler than normal in eight. Small retinal hemorrhages were present in five. The area surrounding the disc is often edematous and the vessels dilated. Six cases of my series had tinnitus. One patient developed a bilateral deafness. Parosmia and paraguesia are occasionally found. Paresthesias of the tongue are common, and the patients complain of them when taking highly seasoned foods.

SPINAL CORD CHANGES AND SYMPTOMS

Tingling and numbness in the hands and feet are the commonest symptoms. The former usually appear first, but the paresthesias in the feet predominate later. Girdle sensations, especially about the knee, are frequent. Migratory sharp pains are sometimes complained of; also hyperesthesia of the trunk. Burning sensations in the toes often interfere with sleep, and a sensation of coldness or deadness in the extremities is not uncommon. Disturbances of the gait and station and spasticity of the limbs are frequently observed. Astereognosis and inco-ordination are occasionally noted. A sensation of swaying was the prominent complaint of one patient.

Pathology of Spinal Cord Changes—The spinal cord changes in Addison's anemia have been long recognized and thoroughly studied. Woltman finds that the degeneration begins in small isolated patches

in the posterior columns, and extends to the lateral columns by secondary degeneration and coalescence. The posterior columns and the lateral pyramidal tracts are most frequently involved. The anterior columns may be affected. The degeneration apparently begins in the nerve fibers, and is most marked at the mid-dorsal level. The direct cerebellar tracts are rarely degenerated. Blood vessel changes are usually insignificant. The meninges are seldom affected in Addison's anemia, but an increased cell count in the spinal fluid is occasionally present. Mix reports one such case. He also observed that pernicious anemia and syphilis attack the spinal cord in much the same fashion. The nerve roots, grey matter, and Lissauer's zone are rarely affected. The degeneration is most marked above the mid-dorsal level, yet the most pronounced neurological signs occur well below this region.

A number of cases are reported in which neurological signs were absent during life, but extensive cord degeneration was found at autopsy. Conversely, some cases presented neurological signs during life, but little or no cord degeneration at necropsy. The latter type of case is probably due to neuritis or a meningo—radiculitis. Constant system degenerations are not present in every patient with Addison's anemia. Unlike tabes, it does not breed true. The cord sclerosis in this affection is not a true system disease, but a diffuse, degenerative process which may involve any cord system.

Three types of cord changes are noted: the tabetic, the ataxic paraplegic, and a combination of the tabetic and ataxic types. In the tabetic type, the knee and ankle jerks are usually weak or absent, and the Babinski sign absent. Muscular hypotomnia followed by flaccidity is the rule. "Silk glove and stocking" anesthesia is sometimes present. The sharp demarcation between anesthesia and normal sensation in these cases is of interest. As in tabes, a sensation as of walking on cotton is not uncommon. Vibration sense is usually lost very early, and this is followed by loss of the muscle and position senses. Testicular sensation may be diminished, and there is often a hypaesthesia of the urethral and rectal mucosa. Epicritic sensibility is not involved to a great extent except in the cases showing glove and stocking anesthesia, but the response to stimuli is often delayed and localization is poorly performed. Except in the late stages, when anemia is profound and cord changes advanced, we do not usually find disturbance of pain or thermal sensations. Dissociation of sensibility is rarely encountered. Co-ordination is usually well preserved in the arms. Astereognosis is common; also loss of manual dexterity. Rombergism is well marked in the late stages of the disease, but may be absent during the stage of irritation. The gait in far-advanced cases is distinctly tabetic.

The ataxic paraplegic type is characterized by spastic paralysis of the legs, exaggerated knee-jerks, patellar and ankle clonus, as a rule, and a bilateral Babinski. As the sensory tracts are intact, there are no sensory disturbances. This type is totally unlike the tabetic. The lateral pyramidal tracts bear the force of the attack; consequently, we get a syndrome resembling spastic spinal paraplegia. In the early stages one finds only spasticity and increased reflexes plus a positive Babinski.

In the combined type we find simply an addition of the spastic paraplegia symptoms to those of the tabetic type. In these cases Mix points out that the behavior of the reflexes is governed by the involvement of the pyramidal tracts; that is, the increased reflexes, Babinski sign, ankle clonus, and spasticity remain even when the posterior columns are extensively degenerated. This type is the subacute combined sclerosis, and is usually a late manifestation. The tabetic type is the most common, the subacute combined sclerosis next, and finally the ataxic paraplegic type.

PERIPHERAL NERVE SYMPTOMS

It is now firmly established that degeneration occurs in the peripheral nerves and also in ganglia. The peculiar sensory symptoms in Addison's anemia cannot be explained on the basis of cord involvement alone, but most observers believe that peripheral nerve degeneration is an inconstant finding. Nonne found no striking changes in the posterior roots or peripheral nerves. Putnam and Taylor found insignificant changes in the same areas. Bramwell believed absence of nerve degeneration to be characteristic of the disease. Von Noorden, however, found definite evidence of neuritis in his series, while Hamilton and Nixon noted distinct areas of degeneration in the posterior roots, Lissauer's zone, and the anterior tibial nerves in six out of ten necropsied cases. Woltman found objective evidence of multiple neuritis in 4 per cent of his cases. He thinks the sensory symptoms can be better explained on the basis of multiple neuritis than on that of spinal cord change. The "stocking and glove" anesthesia, in his opinion, is due to a neuritis. Temperature, touch, and pain sensibilities may be lost, but are usually almost intact.

ENDOCRINE GLAND DYSFUNCTION

There is apparently an endocrine phase to Addison's anemia. In a broad sense the blood-forming organs, spleen, lymphatic glands, and thymus are links in the endocrine chain, and we know that these organs and other ductless glands are affected in this type of anemia. It is certainly true that, in the type of pernicious anemia with excessive hemolysis, splenectomy brings about marked temporary improvement. In these cases we may assume that a hormone in the blood stimulates the excessive hemolysis, that splenectomy breaks this vicious cycle, and improvement results. Sailer pointed out that gonad dysfunction was occasionally seen in this disease. Draper also states that many cases of Addison's anemia have associated endocrine syndromes.

SPINAL CORD BLADDERS

Spinal cord bladders are common in advanced primary anemia. Kretschmer emphasized the fact that little attention has been paid to this condition, and that these patients often come first to the urologist. Difficult urination followed by partial retention, then incontinence, and finally complete retention is the usual sequence of symptoms. Six cases of my series were studied cystoscopically, and fine tra-

beculations in the bladder mucosa were found in four. This was very marked in two. The internal sphincter is often relaxed. Cystograms reveal a funnel-shaped bladder contrasting markedly with the spherical outline of the normal cystogram.

DIFFERENTIAL DIAGNOSIS

Tabes is most commonly confused with Addison's anemia. Optic atrophy and the Argyll Robertson pupil spell tabes. They are unknown in Addison's anemia. Knee-kicks are diminished or absent in tabes, whereas in Addison's anemia they are often increased, due to combined sclerosis. Sanford shows that a Babinski sign is often present in Addison's anemia, but is never present in tabes. Retinal hemorrhages are present in 50 per cent of cases of primary anemia. The Wassermann reaction and blood studies will differentiate the two conditions in most cases. Lastly, Addison's anemia associated with late or latent syphilis is quite rare.

Disseminated sclerosis may be distinguished from primary anemia by the following points: 1. It rarely occurs after 35 years, whereas pernicious anemia is rare before this age. 2. It is more common in females, whereas pernicious anemia is twice as common in males. 3. It is very chronic, whereas Addison's anemia usually kills within three years. 4. It is not associated with anemia. 5. Nystagmus, intention tremor, staccato speech, optic atrophy, and transitory monoplegias are uncommon in Addison's anemia.

Combined scleroses due to secondary anemia, pellagra, plumbism, leukemia, and syphilis may usually be differentiated by careful studies of the blood, nervous system, and gastric contents.

TREATMENT

Early diagnosis is all-important. Careful neurological examination will often help to establish diagnosis before anemia appears. Focal infections should be eradicated, and the results are often good.

Diluted hydrochloric acid given either before or after meals is of distinct value. The iron preparations are of no value. Arsenic is the drug of choice. Fowler's solution, in ascending dosage, is beneficial, but should be discontinued for one week in every four to avoid arsenical neuritis. Salol is often useful to check diarrhea and intestinal putrefaction. Constipation must be corrected and intestinal parasites eradicated. Rest, sunshine, and fresh air are most important, and rest in bed is obligatory if the erythrocytes are less than 2,000,000.

Neosalvarsan or silver salvarsan are most useful. If the erythrocytes are above 2,000,000, they may be given once a week until improvement occurs, then less often. Three-tenths gm. of neosalvarsan or one-tenth gm. of silver salvarsan are given at first, and the dosage gradually increased.

Blood transfusion is unnecessary if the erythrocytes are over 2,000,000. In cases with excessive hemolysis, it is useful. The citrate method is the simplest. Five hundred cc. of blood is given every fourth day until improvement begins, then neosalvarsan is resumed. Reactions occur more commonly after using citrated blood, but this is overcome by morphine and atropine in full dosage before beginning the transfusion.

Splenectomy is not routinely advisable. Splenectomy gave marked temporary improvement in two of my patients with excessive hemolysis and splenomegaly.

Tonics are harmless and sometimes do good.

A diet rich in vitamins and containing a moderate amount of protein is advised. It is difficult to control the distressing paraesthesias and nervous manifestations. Neosalvarsan has a beneficial effect on them at times. Temporary relief is obtainable by using antispasmodics.

Irradiation of the spleen and long bones has been of no value in my cases.

I have had no experience with germanium dioxid. Shukle and Muller and Izard report on it favorably.

Psychotherapy is often useful.

We should not give a gloomy prognosis in these cases, but treat them early, energetically, and persistently. In this way the patient's life is prolonged, and we may even prevent the appearance of the full-blown disease.

CONCLUSIONS

1. Nervous system involvement occurs in 80 per cent or more of patients with Addison's anemia.
2. Degenerative changes in the brain and mental symptoms are quite common.
3. The cranial nerves, with the exception of the optic and auditory, usually escape damage.
4. Spinal cord degeneration occurs in 80 to 87 per cent of cases.
5. Sensory symptoms, especially the various paraesthesias, are the commonest neurological findings.
6. Deep sensation is impaired earlier and to a greater extent than superficial.
7. Three main types of cord change occur: (1) The tabetic; (2) subacute combined sclerosis; and (3) the ataxic paraplegic.
8. Peripheral nerve degeneration is commoner than is generally believed.
9. Endocrine dysfunction is a common complication.
10. Spinal cord bladders may be recognized early by the urologist.
11. Tabes dorsalis is the disease most commonly confused with Addison's anemia.
12. Early diagnosis is essential if good results are to be obtained by treatment.
13. Careful neurological examination may establish a presumptive diagnosis before the anemia develops.
14. Treatment should be early, energetic, and persistent.

Farmers and Merchants' Bank Building.

DISCUSSION

Charles E. Nixon, M. D. (Flood Building, San Francisco) — Since Lichtenstern and Lichtheim noted changes in the spinal cord in cases of pernicious anemia many observers have offered their explanation of the mechanism by which these lesions are produced. While the majority of neuropathologists believe that the lesions of the nervous system are caused by a toxin, they are not agreed as to the way in which the toxin acts. Seyderhelm has recently made an interesting contribution to this phase of the subject. He

was able to break up the toxin "Oestrin" into various fractions. The toxin was both hemolytic and neurotoxic; he found that the "blood poison" acts ("both as a hemolytic and toxic agent") only by parenteral introduction.

Several types of lesions are found in the spinal cords of these cases, but the most characteristic change consists of a degeneration of the long fibers of the cord, particularly of those in the posterior column. It is fairly well established that the long uncrossed fibers of the posterior column conduct impulses having to do with vibratory sense, and this explains the fact noted by Dr. Cole that vibration sense is usually lost very early.

The peripheral nerve involvement which has been demonstrated pathologically is responsible for the acroparesthesiae so prominent in most cases of sub-acute combined degeneration of the cord associated with pernicious anemia. The patients complain of "tingling," "prickling," "numbness" (using this word at times to express paresthesiae and at other times to denote loss of tactile sensibility), "a feeling like sand on the finger tips that can't be picked off."

The combination of subjective sensory disturbances and loss of vibration sense is the most characteristic picture in this condition.

Ross Moore (520 West Seventh street, Los Angeles)—This very meaty paper of Dr. Cole's would be hard to discuss were one to consider it paragraph by paragraph. His series of twenty-one cases of Addison's anemia is rather an extensive one and his analysis is first class.

The chief value of this paper to my mind lies in its suggestiveness. To everyone who reads it carefully it brings a sense of the fact that nervous disorders are frequently part and parcel of more general system conditions. We have really known this a long time, but we do not always keep it in mind. The last fifty years of medicine has seen a great taking to pieces of disease and a great cataloging of symptoms. We are now on the opposite tack—we are synthesizing disease on the basis of fundamental biological principles. Thus it comes about that we hitch Addison's anemia and such a clinical picture as tabes dorsalis together at times. Hitching them together provides a new concept of the individual case and points the way to a rational program of treatment.

Thus medicine advances.

Fred B. Clarke, M. D. (Pacific-Southwest Building, Long Beach, Calif.)—We are all indebted to Doctor Cole for a most excellent review of the literature pertaining to the pathology and symptomatology of Addison's anemia as related to the nervous system. It is possible to make a diagnosis of pernicious anemia from the symptoms of spinal cord involvement before the charactertistic blood changes are found. In many instances they antedate blood changes from two to three years. Bramwell has reported a case in which the time was three years.

Doubtless many cases diagnosed as sub-acute, combined degeneration of the cord, in which a typical blood picture is not found, would have shown the true nature of the anemia at autopsy. Why the clinical picture should be so varied as to lead, in some cases, to a diagnosis of Addison's anemia with spinal cord changes of sub-acute combined degeneration, and in others to sub-acute combined degeneration with anemia, is hard to understand, unless one believes that in some cases the toxins may have a more marked hemolytic action, and in others a more marked neurotoxic action. Some authorities believe that two separate and distinct toxins are to be considered, one showing a predilection for red blood cells and the other for the nervous system.

Regardless of whether the anemia occurs before changes in the nervous system are manifest or afterward, there is no difference in the neurological symptoms nor in the pathological changes in the cord, except in degree.

I think it is well to emphasize that tingling and numbness of the fingers or toes are very valuable as early symptoms and when persistent should result in a careful search for confirmatory evidence of anemia.

The disturbance of vibratory sense I regard as of great importance, occurring as it does so frequently and constantly in the majority of cases before a diagnosis can be made from the blood findings. The same is true of joint sense, both being conducted by the same pathway.

The mental symptoms are interesting and occur more often than usually recognized. Barrett in 650 necropsies on insane persons in Michigan found fifteen to have brain changes of pernicious anemia.

Doctor Cole has said in his conclusions that early diagnosis is essential, with which I most heartily agree, and I believe we should, in so-called mild anemias of unknown cause, critically analyze any disturbance of the digestive tract, especially with reference to achlorhydria, as this is undoubtedly the earliest and most reliable finding in pernicious anemia. Many well authenticated cases have shown this symptom as early as twelve years before blood and cord findings became present. Achlorhydria, if carcinoma of the stomach is not present, should be looked upon with grave suspicion that the individual presenting such a finding either has or may become a sufferer of Addison's anemia.

V. R. Mason (Pacific Mutual Building, Los Angeles)—This presentation of the neurological features of pernicious anemia is so complete that little is left for discussion. It is of interest that in Cabot's large series changes in the nervous system were present in 87 per cent of autopsies in this disease. Dr. Cole has shown that symptoms referable to the nervous system are present in only a slightly lower percentage. It is, therefore, important that internist and neurologist work together in an effort to arrive at an early diagnosis.

Sub-acute degeneration of the cord is usually due to pernicious anemia, and in the vast majority of such cases the clinical picture is due to implication of the long fibers of the posterior columns, a fact emphasized by Dejerine. Such neurological findings often precede the development of anemia, but in my experience they very rarely precede the qualitative alteration of the blood on which a presumptive diagnosis may be made.

I should also like to emphasize two other points of some importance. In the first place, improvement of the neurological symptoms rarely occurs; and secondly, in certain instances, the progress of the degeneration of the nervous system may occur with great rapidity.

Walter C. Smallwood, M. D. (701 Pacific Avenue, Long Beach, Calif.)—Doctor Cole has very completely presented the neurological features of pernicious anemia and has placed due emphasis upon the great frequency of nerve involvement in this disease.

Brain, cord, or peripheral nerve elements may be affected, but cord symptoms are the most common and peripheral lesions most rare.

There is no typical picture of cord involvement in Addison's anemia, but the dorsal and lateral columns are most usually affected, either singly or in combination. The degree of involvement is remarkably variable, and the predominance of impairment may be exhibited in either column, or both columns may be more or less equally affected.

Symptomatically, paresthesias of the feet and hands are the earliest and most common manifestations. Tabetic types of cord implication with inco-ordination and loss of reflexes occur more frequently than spastic or spastic-ataxic syndromes. Occasionally more complex and bizarre neurological findings point to a cord degeneration of a very diffuse and patchy nature.

Disturbances of the nerve function may antedate the anemia, although qualitative alterations in the blood smear have always been present in my experience.

Symptoms of peripheral nerve involvement are rare; stocking and glove anesthesias I have not seen.

Bladder involvement is frequent; fecal incontinence is rare.

Objective neurological evidence may be but slightly marked in pernicious anemia, but if carefully sought is exceedingly common. Hypesthesia or hypalgesia, especially in the legs, diminution or loss of vibratory sense, and slight inco-ordination in the legs possibly visible only in the excessive play of the dorsal tendons in the Romberg test, may be the only signs of damage to the spinal cord.

Neurological findings are more constant and more pronounced as the age scale is advanced. Reviewing our own series, the nervous system showed implication in 95 per cent of patients who had passed the fifth decade.

The neurological symptoms due to cerebral involvement are manifested more by psychic disturbances than by physical nervous stigmata. Pathologically, however, diffuse degenerative plaques in the white matter of the brain are frequently found.

The cranial nerves are almost constantly spared.

Marked mental disturbance, hallucinations, delirium, and maniacal states are ordinarily terminal events. Less profound changes, apathy, somnolence, and mild confusion are not infrequent, especially in the blood crises, and remissions are often attended with improvement or complete amelioration.

Treatment of any type has been, in my own experience, of little avail when definite organic neurologic lesions could be demonstrated.

Doctor Cole (closing)—I have very little to add to the excellent discussion on this paper. Dr. Clarke has emphasized two very important diagnostic points, namely, the early achlorhydria in these cases, and the paraesthesias in the fingers and toes. As he points out, when we are confronted with a patient who has an obscure digestive disorder and in whom we find an achlorhydria, we should immediately think of pernicious anemia and look for other objective findings in the blood smear and the nervous system.

I wish to thank Dr. Moore for again reminding us all that nervous system disorders are often the expression of some underlying systemic condition. We forget this fact much too often.

I cannot fully agree with Dr. Mason that improvement in the neurological symptoms rarely occurs. In my experience I have found that, as a rule, improvement in the blood picture is usually coincident with improvement in the subjective nervous symptoms.

Dr. Nixon lays special stress on the pathology of the nervous system degenerations in this disease, and rightly so, for I know of no disease apart from syphilis which gives rise to so many striking pathological alterations in the nervous system.

Dr. Smallwood points out that the neurological findings are more constant and pronounced as the age scale advances. I omitted mention of this in my paper.

The whole subject is a very fascinating one. The research worker who discovers the real cause of pernicious anemia and devises a successful method of treatment or cure will have generations to come rising up to call him blessed.

(From the Department of Internal Medicine, Johnston-Wickett Clinic, Anaheim, California.)

You can't starve a cow and expect a record-breaking milk yield. Your estate cannot collect on your life insurance unless you pay the premiums. A slow, but sure, method of business suicide is the elimination of all promotion.—Facts Regarding Pharmaceutical Promotion.)—S. De Witt Clough.

"If the people do not generally approve a law, speeding up prosecutions will not make them love it. An increasing number of arrests does not prove that a law is operating successfully, but only that an increasing number of people are doing the things for which they may be arrested."

SKIN SYPHILIS AS CLINICAL ENTITY

By MOSES SCHOLTZ, M. D.,

(From the Graduate School of Medicine, University of California, Los Angeles County and Kaspare Cohn Hospitals)

The controversy over who should treat syphilis is not settled yet.

Diagnostic errors are mostly those of omission rather than of commission.

The Wassermann test does not deserve such absolute confidence.

A syphilitic lesion may be elevated above the skin, but it is never limited to the epidermis only.

Syphilitic lesions involute either by absorption or ulceration, with subsequent production of scars.

There is a great and lamentable tendency at present in the profession to lean too heavily on the laboratory in making a diagnosis.

Laboratory findings are valuable and acceptable in dermatology only in correlation and checked up by clinical evidence.

It is gratifying to a clinician to hear serologists calling halt on the overzealous believers in the Wassermann test and reminding them that laboratory findings should not be considered alone, but only in correlation with clinical findings.

If there is one disease that belongs at once to all medical specialties, this is syphilis. Syphilis is truly a bone of contention among various specialties. The controversy over who should treat syphilis is not settled yet.

A case of syphilis may or may not affect a certain organ or system of organs in the body, but every case of syphilis must go through cutaneous manifestations—at least, limited to the primary chancre. After the resolution, the active syphilides often leave permanent traces, such as scars, pigmentations, leucodermata, which are of considerable retrospective diagnostic importance. Hence, familiarity with skin syphilis as a whole is of great clinical value to the medical man, no matter in what special line he may be working.

I shall briefly review the most common clinical types of syphilides, their salient diagnostic features, and shall briefly consider the sources of most common diagnostic errors in syphilis.

DERMOTROPIC VS. NEUROTROPIC SYPHILIS

There is a current view that incidence of skin manifestations in syphilis depends on the strain of spirochetae. It is believed that various strains preferentially attack various organs of the body; hence, there are: Dermotropic strain, neurotropic strain, etc. There is also a belief that there is a kind of inverse relationship between the involvement of the skin and other tissues by spirochete; that is, the more profuse and marked the skin eruptions are the less likely is the involvement of visceral organs, and vice versa. However, this hypothesis is not sufficiently substantiated by clinical evidence.

GENERAL MORPHOLOGIC CHARACTERISTICS

Speaking of the general morphologic characteristics of cutaneous syphilis, one outstanding feature should be emphasized: the most incredible morphologic versatility and polymorphism of skin syphilis. It can truly be said that syphilis can mimic any dermatologic lesion whatever. So true it is that the

old Latin saying, "In dubis respice lues," holds good today as ever before.

Cutaneous syphilide may resemble in appearance eczema, impetigo, psoriasis, lichen, seborrhea, ringworm, pemphygus, smallpox, etc.

It is a remarkable and fortunate coincidence that, in spite of the tremendous range of morphologic features of cutaneous syphilides, all these numerous forms possess common characteristics which, with a little training, can be detected in all of them; these are so-called specific stigmata, which allow us to make clinical diagnosis of syphilis. The snap-shot diagnosis, on the general impression of the case, is the most dangerous and unreliable procedure. Only the study of individual lesions and a search for specific morphologic traits gives us reliable and promising means of correct diagnosis.

VALUE OF HISTORY

Strange to say that, with all the knowledge by the profession of the incredible prevalence of syphilis, diagnostic errors are mostly those of omission rather than of commission. More cases of syphilis are overlooked or taken for something else than vice versa. There are two outstanding factors contributing to this. The first is the undue reliance of the practitioners on the history of the case. How often one sees diagnosis of syphilis ruled out just because the patient denies venereal exposure or a history of infection. In this respect, there is a sharp difference between the skin and other organs of the body. In internal medicine, history is of a paramount importance, and ordinarily diagnosis cannot be made without it. In dermatology, history is only of secondary and subordinate value, as the clinical evidence is on the surface and cannot escape the observer. For this reason the usual question, "Did you ever have a chancre" is barren of results and is more likely to mislead the clinician than to give a light on the subject. The only kind of history worth while having is a written statement or a record by a previous medical adviser, but this is available only in exceptional cases. I find it more productive and expedient to make a clinical diagnosis first and ask questions after.

VALUE OF WASSERMANN TEST

Another common source of diagnostic errors in skin syphilis is the Wassermann test. Many practitioners believe with a religious faith in the infallibility of the Wassermann test, and stake their diagnosis on the results of this test. In the light of the dermatologic clinical experience, the Wassermann test does not deserve such absolute confidence. While the serologic statistics claim that Wassermann is positive in 80 to 90 per cent of early secondary syphilis, the clinical fact remains that not uncommonly the active and clinically typical cases of syphilis—confirmed later by the therapeutic results —show negative Wassermann. In the case of typical, or even suggestive clinical lesions, the clinician can justly overrule Wassermann and proceed with the therapeutic tests. On the other hand, positive Wassermann does mean that the patient is syphilitic, but it does not mean necessarily that the present lesions are syphilitic in nature, for the simple reason that a syphilitic may contract also any other dermatosis.

GENERAL MORPHOLOGIC CHARACTERISTICS OF SYPHILIDES

A general principle can be established that, with the exception of the primary lesion, the earlier the syphilitic lesions are the more numerous and deeper they are. This enables us to estimate approximately the age of the infection by the character of the lesions.

A point of interest to be mentioned is itching. It is commonly assumed that syphilitic lesions do not itch. This is correct, generally speaking. However, there are quite a number of cases, particularly early secondary generalized syphilides, where itching is quite pronounced.

Another point of diagnostic importance is comparative rapidity of the clinical evolution of luetic lesions. The early syphilides can be considered as acute and subacute clinical forms. The late secondary and tertiary syphilides belong to the chronic group; yet their development and involution is taking weeks and months, while the development of lesions of the same size in skin tbc. and skin cancer takes years.

Localization is also of diagnostic importance. Early syphilides do have preferential locations such, for instance, as corona veneris selecting the forehead, mucous patches locating on the tongue and lips, condylomata in genito-rectal regions. Late secondary and tertiary syphilides, on the other hand, have no selective localization and attack any part of the body.

SPECIFIC STIGMATA

We have mentioned before specific stigmata. The most characteristic of them is color. We are all familiar with the dusky red, so-called raw-ham color, later turning into brownish copper color. On this occasion, I wish to emphasize the utmost importance of good day light for diagnosis, as diagnosis often rests on the delicate color shading between dusky red, violaceous, yellowish, purplish, deep red or cyanotic color. One should never try to make a diagnosis under artificial light, which renders his color perception uncertain and fallible.

The second specific trait is soft consistency of the syphilides, which gives smooth, rather velvety feel to the palpating finger. This is a very important differential point from many scaly inflammatory dermatoses, such as psoriasis, seborrhea, pityriasis rosea, lupus erythematosus, etc.

Another specific trait not mentioned in the books is a rather deep involvement of the skin. A syphilitic lesion may be elevated above the skin, but it is never limited to the epidermis only; it always goes to the true cutis, and often way below it. This differentiates syphilis from various superficial skin infections, such as tinea, seborrhea, etc. Still another very important specific trait is a tendency to form flat lesions. This feature occurs largely in secondary syphilides—early and late. Its best example is so-called broad, flat condylomata, i. e., venereal warts.

The only exception is follicular pustular syph-

ilides, which stimulates acne. However, the absence of comedones, localization extending beyond acne area, deep color and other associate symptoms effect differentiation.

The shape of the lesions is also one of the specific traits. The early lesions have round or oval form, but late secondary begin to assume annular form, and still later tertiary lesions take up serpiginous or kidney-shape form.

Syphilitic lesions involute either by absorption or ulceration, with subsequent production of scars. Syphilitic scars are so characteristic as to constitute one of the most important specific traits. They are invariably serpiginous, very soft, pigmented at first, and later depigmented, and show a strong tendency to atrophy, giving an impression of wrinkled cigaret paper. Syphilitic scars are one of the best means to establish retrospective evidence of syphilis. They are as conclusive as positive Wassermann. Yet how few practitioners avail themselves of this important symptom. Here again, the importance of a thorough examination comes up to the front. It can be safely stated that no other branch of medicine pays better dividends on a thorough examination than dermatology. Many obscure cases of syphilis, overlooked because of the negative Wassermann and negative history, would be recognized as such if the clinician would not fail to strip the patient and make a thorough inspection of the skin, searching for the retrospective evidence of lues, such as specific scars, pigmentations, or leucodermatous spots.

HEREDITARY SYPHILIS

A word about hereditary syphilis.

Speaking generally, skin lesions of hereditary syphilis present all the specific traits mentioned above, with a few exceptions. One of them is bullous lesions commonly involving the palms and the soles. Bullous lesions never occur in acquired syphilis, and are the exclusive feature of the hereditary type. Rhagades, or radiating scars found at the mucous cutaneous junction around the mouth and anus, are another distinctive feature of hereditary syphilis.

One should not expect to find in every case of hereditary syphilis a state of malnutrition and wrinkled "old man" looks. Nor, uncommonly, infants in the most excellent state of nutrition show very marked specific stigmata.

Among stigmata comprising a syndrome of hereditary syphilis most common are: Snuffles, saddle-nose, enlargement of the spleen and liver, epiphysitis, lamphadenopathy, so-called Hutchinson's triad of interstitial keratitis, notched teeth and deafness, and saber-like tibias.

Medical history of the parents and other children in the family are of much greater value in hereditary syphilis than in the acquired.

CONCLUSION

These remarks are offered merely as a general sketch or morphologic characteristics of cutaneous syphilis. My purpose in presenting it is to re-emphasize the great value and importance of clinical data in diagnosis of syphilis in contra-distinction to the laboratory findings. There is a great and, in my opinion, lamentable tendency at present in the profession to lean too heavily on the laboratory in making a diagnosis. In fact, many clinicians expect the laboratory to spare them the effort of clinical reasoning, and are in danger of having their power of clinical observation atrophied from non-use. Dermatology is one branch of clinical medicine that can successfully defy the laboratory in the struggle for supremacy. Because of the peculiar topographic location of the skin as a surface organ, dermatologic clinical evidence is offered to anybody who will look for it. It is my claim, confirmed many times in the post-graduate work that, with a little training in collecting and interpreting dermatologic evidence, the average practitioner can acquire a capacity of making a correct diagnosis of syphilis on clinical grounds in the majority of cases, and through that emancipate himself from the state of helplessness and absolute dependence on the laboratory.

Laboratory findings are valuable and acceptable in dermatology only in correlation with the clinical evidence. Laboratory shall give additional information of confirmatory nature, but it should be subordinate to and not controlling the clinical diagnosis based on correct principles and correct technic.

718 Brockman Building.

DISCUSSION

Harry E. Alderson, M. D. (240 Stockton Street, San Francisco)—As Scholtz well states in the beginning of his interesting paper, those who undertake to treat syphilis should know a great deal about the skin and mucous membrane manifestations of the disease. It is on account of the frequency of these lesions that specialists in cutaneous medicine see most of the cases. The skin and mucous membranes also give us valuable evidence of the untoward effects of mercury, iodides, and arsphenamin, enabling us to modify our treatment at the right time. This is an additional reason why dermatologists should be the best qualified to treat the disease.

As for there being different strains of spirochete showing special affinity for certain tissues, my feeling is that it is the other way—that is, this apparently selective action of the organisms is due to increased susceptibility of the tissues. Thus some individuals are more prone to develop cerebrospinal lues, and others cardiovascular lues, and so on by reason of some inherent weakness of those systems.

Regarding the diagnosis, one should not depend too much upon any one factor, but should take clinical and serological symptoms, along with a carefully worked-up history, under consideration, weighing all thoughtfully before arriving at a decision. There is too much of a tendency nowadays to rely upon laboratory assistance alone. We are in danger of losing our clinical diagnostic ability. This is more true of the average medical man than of dermatologists. In my opinion, the latter, by reason of their training and experience, are the best qualified to make an accurate clinical diagnosis of syphilis.

Ernest Dwight Chipman, M. D. (350 Post Street, San Francisco)—Very little comment is necessary on Dr. Scholtz's presentation of arguments relative to the recognition of the clinical signs of syphilis. No matter how much aid the laboratory offers in general, there come many cases in which the recognition of specific stigmata is the determining factor. In some instances where the decision is held in abeyance, even inferential signs such as the tendency to grouping, polymorphism, broken circles or the localization will be of weight. For this reason there still remain opportunities for those trained in the clinical recognition of syphilis to render important service.

The question of selective tissue affinity of different strains of spirochetes is one of much interest. I had

supposed that the view expressed by Dr. Scholtz had received rather general acceptance, and that the behavior of spirochetes in this regard somewhat paralleled that of streptococci. I have heard of instances in which several individuals infected from the same source suffered alike in early involvement of the nervous system. Observations such as this are ot undoubted significance and serve to emphasize the clinical side of the question. Dr. Scholtz, I take it, welcomes all the aid the laboratory can afford, but just as the internist does not dispense with his thermometer and his stethoscope because a laboratory sometimes finds tubercle bacilli in the sputum, so the dermatologist does not discard his clinical understanding because in some instances the laboratory diagnosis is easy.

Robert A. Kilduffe, M. D. (Hollingsworth Building, Los Angeles) — The widespread incidence of syphilis and the protean character of its manifestations combine to make Dr. Scholtz's paper of interest to all physicians, not alone because of its descriptions of the dermatologic manifestations of syphilis, but primarily because it again calls needed attention to several important but neglected principles in the recognition and management of this disease; principles which have been frequently reiterated and discussed in the current literature of recent years, but which, nevertheless, are sometimes more honored in the breach than in the observance.

The first of these has never been better expressed than by Osler's dictum: "Know syphilis and all else shall be added unto you."

Dr. Scholtz again emphasizes the importance of diagnosis and again calls attention to the fact that diagnosis implies and necessitates clinical observation and study of the patient with the disease. Mere study and observation and the eliciting of a history, however—which, by the way, seems somewhat in danger of becoming a lost art—are not of themselves sufficient. The findings so obtained must be **interpreted,** evaluated, and applied to the particular case, and the value and correctness of the interpretation cannot be dissociated from the skill and ability of the practitioner. He must be able to gather information and able to correlate and interpret it, and in no instance is this of greater importance, nor more neglected than in the utilization of laboratory findings which, after all, are not in themselves pathognomonic procedures, but merely methods of gathering information not otherwise obtainable and which must be correlated and interpreted in conjunction with all the other findings.

The clinical use of the complement-fixation reaction in syphilis—for practically only the name remains of the original technic described by Wassermann—is too often a flagrant example of the misuse and malinterpretation of laboratory examinations. It should be merely a phase of the clinical study of syphilis instead of constituting, as is true in a regrettable number of cases, in conjunction with a more or less perfunctory history and physical examination, almost the entire examination as to the presence or absence of syphilis as a diagnostic possibility.

The complement-fixation test in syphilis is not an infallible procedure. Its value is intimately associated with the method employed; its delicacy and reliability; and with the skill and training of he who employs it. In other words, just as the clinician assures himself of the ability of his surgeon, so should he be assured of the ability and experience of his serologist.

The Wassermann report is merely the report of the result obtained with the specimen examined. It does not of itself and by itself alone warrant an unreserved diagnosis of syphilis, any more than a single negative report warrants the casting aside of such a diagnostic possibility or the statement that such a patient is now cured. A single negative result can never be permitted to overshadow suggestive nor positive clinical findings; neither can a single negative physical examination be used as a warrant for overthrowing a positive complement-fixation reaction made by a properly checked and controlled technic and a competent serologist. Under these circumstances, at least a thorough and exhaustive study of the case is indicated before syphilis can be cast aside.

The demonstrations of Warthin of spirochete pallida in the blood vessels and other tissues of patients without symptomatology and the finding of McConnell of a positive Wassermann in a patient with evident malaria and not a single demonstrable lesion of syphilis until autopsy when spirochete were found in the aorta; the frequent detection of asymptomatic and latent syphilis by a positive complement-fixation test as the only evidence during life, and many other similar observations to be found in the literature carry their own moral.

While it is of value to note the characteristic and typical nature of the lesions so ably described by Dr. Scholtz, it is also well to recall that a too blind reliance upon "typical" findings may lead to disaster. The dark field has taught us that "typical chancres" may not be chancres and that very atypical sores may be teeming with spirochete. Knowing the tendency of syphilis to mimic numerous dermatolic nonsyphilitic conditions, the absence of a typical appearance is not to be too much relied upon as signifying the non-luetic character of an obstinate lesion.

The question of the existence of "neurotrophic" and "dermotrophic" strains of spirocheta pallidum with predilections for various tissues or organs of the body is far from settled, and there is no direct evidence leading as yet to the demonstration of the correctness of these theories. While definite evidence for or against this supposition is yet to be adduced, studies in the reaction to experimental syphilitic infection have failed to bring evidence to corroborate it, and have shown, beyond cavil, that variations in the clinical response to syphilis may be and are influenced by other factors of, perhaps, greater importance such as the resisting mechanism of the host and the disease-producing properties — that is, the aggressiveness and virulence—of the infecting strain.

The work of Brown and Pearce in experimental syphilis has demonstrated a direct relation between the degree of (defensive) reaction at the site of invasion (the primary lesion) and the degree of systemic involvement later exhibited, and has led to their expression of these factors in terms of "the law of inverse proportions" and the "law of progression or sequence."

The law of inverse proportions expresses the thought that the duration of any active manifestation of syphilis is inversely proportional to the intensity and extent of the initial local reaction; and the workings of this law have been experimentally shown.

The law of progression is based upon the fact that, when allowed to pursue an undisturbed course, syphilis tends to preserve, in the experimental animal, "an orderly progression with varying degrees of intensity and extent. This characteristic of the disease is attributable to the fact that different groups of tissues are not equally adapted to the growth and multiplication of the spirochete on the one hand, and that they are not equally sensitive nor reactive to the toxic effects of the organisms on the other. Moreover, there is a natural order of susceptibility and of involvement, and the protective influences arising from reactions taking place in one group of tissues is extended to others in an equally orderly fashion. Under normal circumstances, therefore, the sequence observed in the occurrence of the manifestations of the disease may be regarded as an orderly progression whose direction is determined by the relative susceptibility of different tissue groups and whose limits are fixed by the sequence and extent of the defensive reactions. Hence, it may be said that the manifestations of the disease presented in any given instance depend, not only on the general laws which govern syphilitic reactions, but also on a number of other circumstances which includes any and all con-

ditions affecting the initiation of the infection, the resistance of the host, and the pathogenic properties of the organisms themselves."

Doctor Scholtz (closing)—I wish to express my appreciation of the generous and interesting discussion accorded my paper. I wish to acknowledge also the fair and unbiased attitude of the part of Dr. Kilduff. It seems that the profession at large went much farther in their belief in the infallibility and pathognomonicity of the Wassermann test than serologists themselves are willing to go. It is gratifying to a clinician to hear serologists calling halt on the overzealous believers in the Wassermann test and reminding them that laboratory findings should not be considered alone, but only in correlation with clinical findings. This is precisely the keynote of my paper, which is merely a plea to return to the clinical basis of diagnosis of cutaneous syphilis, using the laboratory only as an additional source of information.

Mental Defectiveness Among Rural School Children in England—Doctor G. K. Bowes (Lancet), after two and one-half years of study of rural school children in England, arrives at the conclusion ,'that, in the rural area examined, there exists among the school population a very high proportion of mentally defective children. The number so ascertained amounted to 3 per cent of the school population under review, and of this percentage 5 per cent were classified as imbeciles, and 2.5 per cent as feebleminded. There is reason for thinking that the actual percentage found fell short of the real number present, and that this number was probably somewhere in the neighborhood of 4 per cent, or even higher. The mentally defective children were in most cases the offspring of generally degenerate stocks, the members of which were incapable of performing in any adequate way the duties and responsibilities of citizenship, but who were not incapable of earning a living of some sort in a rural environment. We thus obtained a picture of the kind of adult into which the mentally defective child was likely to develop."

More Misbranded Nostrums (reported by Council on Pharmacy and Chemistry of the A. M. A.)—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Doane's Kidney Pills (Foster-Milburn Co.), consisting essentially of potassium nitrate, ground leaves of ura ursi, a trace of volatile oil, such as turpentine or juniper oil, a resin, starch, sugar, and talc. (For years the advertising of "Doane's Kidney Pills" has long been an offense against the public health. Its advertising methods have been such as to frighten the public into the belief that pain or soreness in the lumbar region is indicative of kidney disease.) Lafayette Headache Powders (Lafayette Co.), consisting essentially of acetanilid, daffein, sodium bicarbonate and aromatics, including cinnamon and ginger. Grogan Mineral Water (Grogan Wells and Boone Institute of Massage), containing large numbers of bacteria and gas-forming organisms, indicating that the water was polluted.—Journal A. M. A.

Inhalation of "Carbona" (Propaganda for Reform, reported by Council on Pharmacy and Chemistry of the A. M. A.)—A periodic drinker used the cleaning fluid "Carbona" to produce unconsciousness when inhaled. Carbona contains carbon tetrachlorid as its essential constituent; carbon disulphid being generally present also. Carbon tetrachlorid has been tried as a general anesthetic and found unsatisfactory. The carbon disulphid greatly increases its toxicity when inhaled.—Journal A. M. A.

THE FREQUENCY OF ENDOGENOUS ENDOCRINE OBESITY AND ITS TREATMENT BY GLANDULAR THERAPY*

By H. LISSER, M. D., San Francisco

Obesity may have serious consequences quite apart from the aesthetic or cosmetic point of view.

Radical diet restriction often reduces weight, but cannot be termed a "cure" because it fails to correct the fundamental cause of such incretory obesity.

The chemistry of obesity is still quite obscure.

Several glands exert a powerful influence on the shape and bulk of the human body.

Neither 99 per cent nor even 50 per cent of obesity is entirely exogenous.

A mere restriction of food intake only scratches the surface, but neglects the underlying cause.

Failure to exercise and lethargic habits are not always due to laziness.

It is embarrassing to note how often goiters are overlooked.

Gland extracts are no panacea for fat people.

When pituitary, ovarian, and testicular extracts are as potent and reliable as thyroid and insulin, there will be far fewer fat people.

There is no royal road to reduction, whether it be by diet cure, victrola cure, roller cure, or gland cure.

I venture to predict that the supreme triumph will come in the end from the isolation of hormones specific for certain types of adiposity, just as the pinnacle of diabetic research was reached in insulin.

Obesity is a common affliction. In many instances it is a condition traceable through several generations. It is a question whether in such patients an inherited glandular predisposition causes the accumulation of weight, or whether family habits of diet and activity are primarily responsible. Undoubtedly, many people consume too much highly nutritious food and exercise insufficiently, especially after thirty, and consequently acquire superfluous flesh. Such obesity is exogenous, and proper dietary restriction and judicious advice regarding exercise will effect the desired reduction.

Obesity may have serious consequences quite apart from the aesthetic or cosmetic point of view. Such persons are prone to fall victims to diabetes mellitus, as repeatedly stressed by Joslin, also more apt to develop cardiovascular and renal disturbances as a result of extra strain on these organs, and often complain of aches and pains in the back and limbs from the heavy drag on the spine and muscles.

The view that an overwhelming majority of obese individuals owe their adiposity to excessive food intake and lack of exercise is probably exaggerated. Most of us are acquainted with people who eat lightly and are very active, but who nevertheless accumulate fatty tissue. Likewise, we are aware that many persons eat heartily, are not especially athletic and yet remain thin. In fact, it becomes as difficult to *reduce* the weight of the *former* by diet restriction, as it is to *increase* the weight of the *latter* by forced feeding. Normal food intake and normal exercise will not avail with such individuals because an underlying factor is responsible which is not sufficiently recognized in diagnosis and not given proper consideration in planning treatment.

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* Read before the Fifty-third Annual Session of the California Medical Association, Los Angeles, May, 1924. Lantern slides were used to illustrate the address, which are not reproduced in this publication.

This factor is an abnormal faulty metabolism, the control of which is to a large extent dominated by the glands of internal secretion.

Radical diet restriction often reduces weight, but cannot be termed a "cure" because it fails to correct the fundamental cause of such incretory obesity, and after terminating the so-called "cure," fat again accumulates when a full diet is resumed. Most reduction "cures" effect only temporary and not permanent reduction. It may be remarked in passing that, for practical purposes, weighed diets, in which caloric values are carefully estimated, prove too irksome for the average patient. The argument that such quantitative diets are constantly taught diabetics, where such instruction is imperative, does not prove their necessity or applicability to the majority of obese individuals. Furthermore, it is to be remembered that the chemistry of obesity is still quite obscure and not to be compared with our knowledge of the metabolic disturbances in diabetes mellitus. That sort of menu which requires reasonable restriction of fats and carbohydrates, but is sufficiently varied and attractive as to permit its habitual use indefinitely, is simpler, preferable, and more satisfactory over a long period of time. Indeed, this type of diet is all that is necessary or desirable in patients whose obesity is largely dependent on endocrine deficiencies.

Several glands exert a powerful influence on the shape and bulk of the human body. These, principally, are the thyroid, pituitary, and ovaries in women and the corresponding organs in the male sex. Insufficient function of any one, or of two or three of these glands at the same time, will almost invariably produce adiposity and often of extreme grade. One need but mention the rapid gain in weight that often follows the artificial or natural menopause; or castration in the male; or the obesity of myxedema; or dystrophia adiposo-genitalis (Froehlich's syndrome). The obesity of children is almost always of incretory origin, unless some chronic disease has kept the child confined to bed or in a chair for a year or more. It is notorious that children can eat enormous quantities of food without becoming abnormally heavy. As Mendel, the great authority on nutrition, phrased it, "No normal boy or girl can overeat." The "fat boy" or "fat girl" demands careful study of their ductless glands, and proper glandular therapy prior and during adolescence is very important for their future. Obstetricians should cease congratulating proud mothers on fat babies that weigh nine pounds or more at birth. There are various types of obesity, the deposition of fat varying in its location according to the gland primarily at fault. The administration of the proper gland extract by mouth and by injection helps materially in reducing such patients and improving their health generally. Such extracts are not dangerous if given in proper dosage and if the patient is kept under observation until his tolerance is properly estimated and established.

Determination of the basal metabolic rate is helpful, but the institution of glandular therapy (even thyroid extract) should not depend solely on this test. Many obese patients have a normal metabolic rate, and despite this fact can sometimes tolerate large doses of thyroid extract without toxic symptoms and without raising the rate above normal limits. This latter statement may occasion some surprise, but it is based on experience that will bear scrutiny. The metabolic rate should not be neglected, but should be interpreted in conjunction with and in relation to the clinical findings. The dictum that thyroid extract is invariably contra-indicated in patients with a normal metabolic rate is not tenable. But it would be most unwise to deduce from this that thyroid extract can be given recklessly. Every physician should be perfectly familiar with the many signs and symptoms of thyrotoxicosis, so that he may be able to control its administration.

It is obviously beyond the confines of this paper to describe in detail the various types of ductless gland disease in which obesity is a common and prominent symptom. This would necessitate a veritable treatise on endocrinology. Many excellent text-books are available, such as Falta, Cushing, Barker in Monographic Medicine, etc. There is nothing original in the observation that obesity is a striking symptom of incretory deficiencies. The object of this paper is merely an attempt to stress its frequency, and to oppose the attitude too commonly held that 99 per cent, or even 50 per cent, of obesity is entirely exogenous. It is difficult to present scientific evidence in support of such a contention that would be "bullet-proof." This would necessitate a research experiment not readily accomplished. A series of patients would have to submit to incarceration in a metabolism ward of a hospital for at least six months, under such strictly controlled conditions that one could be positive of their exact food intake. If such patients on a 1200 to 1500 calorie diet did not lose, but when appropriate gland extracts were added (the diet being kept the same) loss of weight occurred, one could feel justified in the assumption that their obesity was endogenous and of endocrine origin.

A large appetite and a craving for sweets and starches may characterize a glutton, but it is to be remembered that this craving may itself be pathological, and depend on hypopituitarism. The hunger, thirst, and high sugar tolerance of these patients is well known. A mere restriction of food intake only scratches the surface, but neglects the underlying cause. Results would be temporary, because the patient rarely persists against an abnormal appetite difficult to control. Gland administration to supplement the patient's gland deficiency is a sound logical procedure. Perhaps a striking parallel will reinforce the above argument. Subjects of diabetes mellitus, suffering from deficiency of pancreatic island hormone, are hungry for sweets and starches, have ravenous appetites ofttimes, and frequently complain of extreme thirst. These symptoms are recognized as due to insulin deficiency and are promptly relieved by insulin injection.

On the other hand, subjects of hypothyroidism or myxedema are obese, despite a very low caloric intake. Their appetites are poor, they consume relatively meager quantities of food, but they gain weight nevertheless. To attempt mere diet restriction in such cases is almost ludicrous, for it is akin to subtracting something from nothing. On the

A STUDY OF ENDOGENOUS ENDOCRINE OBESITY.

No.	AGE	SEX M- Male F- Female	? MARRIED	OBESITY IN FAMILY?	ONSET & DURATION OF OBESITY	TYPE OF MENSTRUAL DISTURBANCE	BASAL METABOLIC RATE %	HEIGHT	IDEAL WEIGHT	ACTUAL WEIGHT	LOSS UNDER TREATMENT	LENGTH OF TREATMENT	TYPE OF ENDOCRINOPATHY	RESULT
1.	38	M	Single	(No)	Following typhoid fever Since age of 23	———	45.2—	5ft. 6¾in	145½ lbs.	176 lbs.	33 lbs.	6 months	Adult Myxedema	Excellent
2.	33	F	Married	Yes	following 1st pregnancy aged 18	regular but scanty.	27.5—	5ft 7 in	148 "	265 "	43 "	9 "	Pluriglandular Obesity	Fair – stopped treatment.
3.	60	F	"	(No)	following menopause at 43	———	22.2—	5ft 2 in	121 "	222 "	36½ "	2½ "	Adult Myxedema X	Good – still under treatment.
4.	21	F	Single	Yes – mild	Since 10 years of age	scanty flow intervals of 2 to 5 mos	2.5—	5ft. 2 in	121 "	196 "	35 "	8½ "	Adolescent Hypopituitarism + Hypothyroidism	Good – still under treatment
5.	43	F	Married	(No)	Since 28 " " "	irregular, scanty	19.1—	5ft. 5 in	137½ "	174 "	19 "	4 "	Adult Hypothyroidism B.P. 94/70	Good
6.	27	F	"	(No)	Since hysterectomy aged 24; gained 70 lbs in 5 mos	Intervals of 2-4 mos.	20.7—	5ft. 2 in	121 "	218 "	27 "	6 "	Primary Hypogonadism with hypothyroidism	Fair – stopped treatment.
7.	24	F	Single	Yes	Always fat	onset at 15½; intervals of 6 mos to a year	13. —	5ft 7½in	151 "	197 "	35 "	6 years.	Adolescent Eunuchoidism XX	Good – still under treatment.
8.	10½	F	"	Yes – mild	" "	———	12.2—	4ft 8½	95 "	128 "	32 "	6 months	Preadolescent Hypothyroidism X	Excellent
9.	22	F	"	(No)	" "	Normal	7.6—	5ft 5½	140 "	211½ "	58½ "	6 "	Thyro-Pituitary Obesity	Excellent
10.	30	F	"	(No)	" "	utterly irregular— Amenorrhea for 2 yrs	11. —	5ft 2½	123½ "	232½ "	22½ "	5 "	Pluriglandular Deficiency	Fair – still under treatment
11.	15	F	"	Yes – mother		severe dysmenorrhea	5.4—	5ft 6½	145½ "	182½ "	14 "	3 "	Adolescent Thyro-Pituitary Dysfunction X	Fair still under treatment
12.	45	F	Married		since 29 years of age	Normal	5. —	5ft. 3	126½ "	256 "	64½ "	1½ years	Acromegaly followed by Hypopituitarism	Excellent
13.	19½	F	"	(No)	gained 60 lbs since Mgge	scanty + prolonged bilateral	4.9—	5ft 5	137½ "	182 "	39 "	7 months	Adolescent Goiter; Post Adolescent Hypopituitarism	Excellent
14.	25	M	"	Yes	Since typhoid fever aged 7 years	———	4.2—	5ft 11	170½ "	297 "	31 "	2½ "	Thyro-Pituitary Obesity X	Good – still under treatment
15.	20	M	Single	(No)	Always fat	———	1.5—	5ft 8	154 "	291 "	50 "	8 "	Thyro-Pituitary Obesity X	Good – stopped treatment.
16.	24	F	Married	Yes	Since 3 years (aged 21)	5-8 weeks interval	0.14—	5ft 1	115½ "	215 "	38 "	1 year	Post Adolescent Thyro-Pituitary Obesity	Good – still under treatment
17.	29	F	"	(No)	Following pregnancy 1yr ago	scanty	1.3+	5ft 4	132 "	156 "	27 "	4 months	Hypopituitarism following pregnancy	Excellent.
18.	36	F	"	(No)	Since age of 20 years	scanty	4.1 +	5ft 1	115½ "	271 "	31 "	8½ "	Post-Adolescent Thyro-Pituitary Obesity	Good – still under treatment
19.	18	M	Single	(No)	Since age of 16 years	———	5.2 +	6ft 1	181½ "	197 "	25 "	6 "	Eunuchoidism + Epilepsy (X)	Excellent
20.	23	F	"	(No)	" " " 20 "	interval of 5-6 weeks scanty	5.9 +	5ft 5	137½ "	160 "	21 "	6 "	Adolescent Hypopituitarism XX	Excellent
21.	59	F	Married		since menopause aged 52	———	6.8 +	5ft 9	160 "	250½ "	58½ "	1½ years	Acromegaly followed by Hypopituitarism	Excellent
22.	31	F	"	Yes	Since amenorrhea aged 28	Amenorrhea several years	7.9 +	5ft 6½	145½ "	184½ "	40 "	1 year	Adolescent Hypopituitarism	Excellent
23.	16	F	Single	Yes – mild	Since puberty aged 12	interval 6-7 wks always scanty	8.3 +	5ft 1	118½ "	168 "	45 "	2½ years	Adolescent Hypopituitarism + Epilepsy XX	Excellent
24.	18	F	"	(No)	Since amenorrhea	Amenorrhea since 1½ yrs	9.7 +	5ft 1	115½ "	145 "	25 "	11 months	Adolescent Goiter + Hypopituitarism	Good
25.	38	F	"	(No)	always fat	intervals 5 week – 8 months	12.2 +	5ft 5½	140 "	197½ "	35½ "	7 "	Colloid Goiter + Hypothyroidism + Hypopituitarism	Excellent
26.	36	F	Married	(No)	" "	5-6 week intervals	13.3 +	6ft	176 "	256 "	24 "	10 "	Gigantism + Dyspituitary Obesity XX	Fair – still under treatment
27.	32	F	Single		past year since trouble	Normal	22. +	5ft 6	143 "	158	30 "	4 "	Toxic Adenoma + Post Adolescent Hypopituitarism	Excellent
28.	14	F	"	(No)	past 3 years	Normal	———	5ft 3½	129 "	164	15 "	3 "	Adolescent Thyro-Pituitary Obesity X	Fair – still under treatment
29.	27	F	Married	(No)	Many years	scanty	———	5ft 1	115½ "	176	16 "	4 "	Pituitary Cranial Obesity	Fair – still under treatment
30.	23	F	Single		past 3 years following influenza	Depressed + scanty	———	5ft 3½	129	196	54½ "	1 year	Post Adolescent Hypopituitarism XX	Excellent

X – Only Thyroid extract used. XX – only pituitary extracts used (X) – only testicular implantations used

other hand, administration of thyroid extract or thyroxin actually stimulates their appetite, but they lose weight. A sluggish metabolism has been stirred into activity and efficiency.

Failure to exercise and lethargic habits are not always due to laziness; they are themselves characteristic symptoms of hypothyroidism, hypopituitarism, and hypogonadism. It is hardly fair to demand much agility from a cretinoid child, a Froehlich's type, or a eunuchoid. It may be objected that these conditions are rare and that the overwhelming number of obese individuals are not examples of these diseases. As a matter of fact, even the outspoken instances of these maladies are by no means rare, though frequently not recognized; whereas, the milder forms of these deficiencies are far more common than is generally appreciated. Moreover, it is just the milder "formes frustes" types that offer more difficulty in diagnosis, but that rewards one's recognition of them by readier response to proper substitution therapy. The "little signs" are often there if one but looks for them and is familiar with them.

It is embarrassing to note how often goiters are overlooked and their correct differentiation (adolescent, colloid, hyperplastic, adenomatous, etc.) neglected. It is surprising how little attention is paid to the character of the skin, whether it be smooth or rough, warm or cold, dry or moist; the quality, texture, amount and distribution of the hair; the appearance, condition, and position of the teeth; the character of the nails; the shape of the hands and fingers, the location of the fat (whether nuchal, cervical, pectoral, girdle, trochanteric, or extending to the wrists and ankles). It is unfortunate that questions directed to the menstrual history are often casual and indefinite, when precise information about age of onset, length of interval, regularity, and amount might disclose significant data. X-ray investigation to note appearance of the bone nuclei and closure of the epiphyses in relation to chronological age are not sufficiently utilized, when their assistance might clinch the diagnosis. Refuge is often taken in the "wise observation," that there are wide variations within the normal, as if that condoned an inattention to detail. A lack of interest or understanding is disguised in the sage and comforting reassurance to the mother of the fat boy or girl—that "nature often adjusts these disturbances," secure in the knowledge that Nature sometimes does, but not concerned apparently when nature sometimes doesn't, until valuable years have slipped by when treatment would have been most effectual.

Gland extracts are no panacea for fat people. Many times they are not necessary, sometimes they are positively contra-indicated. No one method of weight reduction is applicable to all cases, whether it be any one of a score of weird diet cures, victrola cures, roller cures, or gland cures. Each case requires individual study, thorough investigation, careful, persistent, long continued treatment and observation. Nor will prompt and brilliant cure invariably follow in those cases where gland extracts are indicated, for the extracts available leave much to be desired. When pituitary, ovarian, and testicular extracts are as potent and reliable as thyroid and insulin, there will be far fewer fat people. But even in their present state they are not without merit, and the cases herewith tabulated demonstrate their usefulness.

Thirty cases have been selected that gave treatment a fair trial. Several are still under treatment. Detailed consideration of each case is beyond the scope of this paper. It will be noted that the great majority are females, which is to be expected. Thyroid disease is about ten times as frequent in women as in men; an ovarian dysfunction is more frequent than functional insufficiency of the testicles. Probably the menstrual function, pregnancy, and the menopause are largely responsible for this. Out of twenty-six females, one had not reached the age of adolescence; of the remaining twenty-five, eighteen gave evidence of very marked disturbance of menstrual function. About half the cases gave no history of familial obesity. Basal metabolic rates were obtained in twenty-seven of the thirty cases. Nine of these had rates below the theoretical normal; fifteen had normal readings; and three were actually above normal (one of these had a mildly toxic adenoma). The response to glandular therapy as expressed in loss of weight seemed to bear no relation to the metabolic rate. Contrary to expectation, some with low rates were difficult to reduce, some with normal rates responded promptly to therapy. Thyroxin was used in Case 1. Thyroid extract alone was responsible for weight loss in six cases marked "X." Pituitary extract (the whole gland or sometimes the anterior lobe only) was successful, without thyroid, in reducing five cases marked "XX." Implantations of fresh unextracted, untreated ram's testicular substance produced the loss of twenty-five pounds in Case 19, marked "X." In the remaining seventeen cases more than one gland extract was used, usually thyroid and pituitary in combination, in salol-coated capsules. Sometimes injections of pituitary or ovarian extracts were given. Details of dosage, preparations used, would require analysis of each case, and must be reserved for a future communication.

It would seem reasonable, then, to consider the adiposity of children and adolescents as an endocrine dysfunction in the majority of instances, demanding incretory therapy. It would seem judicious to investigate the endocrine status of obese adults between the ages of 18 and 50, and to utilize organo-therapy in conjunction with a reasonable diet and exercise where endocrinopathies are discovered. When we approach late adult life, our attitude, even in the presence of ductless gland disease, should be more conservative. We are aware that a fair percentage of women become corpulent rather rapidly after the menopause. This phenomenon might be regarded as a law of nature, with which it would be unwise to interfere. Indeed, it is feared by some that such interference is not only meddlesome, but may be dangerous and actually shorten life. Many women, however, pass the climacteric without gain in weight, and in those that do gain, an ovarian and secondary thyroid deficiency is frequently demonstrable. Mere vanity or false notions of rejuvenation are certainly no excuse for aggressive ther-

apy at this time of life, but a mild replacement regime is often indicated and distinctly beneficial, and will actually tend to prolong life by relieving the extra burden from heart, arteries, lungs, liver, kidneys, tendons, joints, and muscles.

CONCLUSIONS

1. Overeating and insufficient exercise often cause exogenous obesity.
2. The great majority of obese individuals are not fat for these reasons only.
3. Hypothyroidism, hypopituitarism, and hypogonadism are not uncommon, especially in mild degree, and are almost invariably characterized by adiposity.
4. The importance of endocrine dysfunction in producing obesity directly, and in indirectly causing the symptoms that lead to obesity (abnormal appetite and physical inertia) should be recognized in diagnosis and in planning treatment.
5. Basal metabolic rates are valuable, but not the sole index for institution of glandular therapy. A normal rate is not necessarily a contra-indication to the administration of thyroid extract, but its use should be checked by frequent rate determinations.
6. Pituitary extract alone will sometimes reduce weight.
7. Weighed diets are rarely necessary. Reasonable restriction of fats and carbohydrates is more practicable, less irksome, and usually suffices in conjunction with the proper endocrine therapy.
8. The obesity of childhood and adolescence is usually of endocrine origin.
9. One should be cautious in any and all methods of reduction in patients over 50.
10. There is no royal road to reduction, whether it be by diet cure, victrola cure, roller cure, or gland cure. Each case requires individual study.

Fitzhugh Building.

DISCUSSION

Dr. Nelson W. Janney (Pacific Mutual Building, Los Angeles)—One or two decades ago it seemed sufficient to recognize **exogenous** obesity, due to overeating and underexercise, and **endogenous** obesity, usually vaguely relegated to a "constitutional" or "familial" tendency. Due to lack of recognition of all but the most characteristic endocrinopathies accompanied by increase of fat, it was then believed that obesity was most commonly exogenous. With accumulation of knowledge of the ductless glands, it has, however, become a certainty that an endocrine etiologic factor underlies the development of overweight in most cases, as Dr. Lisser's timely paper emphasizes.

The purpose of adipose deposits is to protect other tissues to aid in retention of heat and to act as a normal reserve food and fuel supply. An excessive amount of fat in the absence of gross food overindulgence, indicates faulty metabolism. An adequate understanding of the metabolism of obesity is necessary for its proper treatment.

Intermediary metabolites of carbohydrates, protein, and fat are the materials utilized in the replacement and repair of protoplasm. Both older and recent metabolic studies have emphasized the intimate relationship of these classes of foods, and particularly the ease with which intermediary products of carbohydrates and fats may be transformed by synthesis or otherwise into components of protoplasm, fat, or carbohydrates or vice versa. As the ductless glands serve to control the growth and nutrition of protoplasm, they likewise exert, as is well known, a marked influence on the metabolism of fats, sugars, and similar hydrocarbons. One can surmise, therefore, that pathological obesity ensues as a result of failure of proper synthetic utilization of carbohydrate and fat, as well as of lack of their combustion for the production of heat. We can, therefore, more clearly understand prediabetic obesity.

The endocrine obesities in general are likewise ascribable to inability to utilize carbohydrates (therefore their increased change into adipose tissue) as well as insufficient combustion of fat. The peculiar love of sweets, not fats, so characteristic of cases of Froehlich's pituitary syndrome is probably an expression of "sugar hunger" of the cells. The fact that reduction of obesity in endocrine cases is difficult without the proper exhibition of ductless gland extract would be accounted for on a similar basis. No explanation can, however, be offered as to why the endocrine deposits are so characteristically localized to certain body areas: viz., the pituitary fat girdle, the gonadal trochanteric masses, the nuchal, supraclavicular, and the external malleolar thyroid pads.

The marked muscular fatigability attending developed cases of endocrine obesity can probably be explained by lack of hormones essential for the replacement and the repair from intermediary metabolites of the rapidly depleted myoplasm. There is a marked frequency of myocardial enlargement in endocrine cases of long standing which is probably due to the same cause in the absence of other etiology.

Systematic graduated therapy and careful instruction of the patient is essential for success in the treatment of endocrine obesity. In pluriglandular cases it is well to establish the optimal effect by regular variations in the doses of each endocrine extract in turn, and later in combination. Although weighed diets are rarely required, a dietitian's assistance is of value in meeting the individual requirements and tastes of different individuals. Exercise must be cautiously prescribed in asthenic endocrine cases, in which loss of weight had usually best be limited to 5 to 10 pounds monthly regularly obtained. Violent reduction may be followed by collapse. Self-hypodermic administration of ductless gland preparations is often advisable, just as in the case of diabetics treated with insulin. Subjects of endocrine obesity, particularly pituitary, are temperamental, apprehensive, sensitive and weak-willed, requiring frequently considerable exercise of patience and tact in their management.

Victor G. Vecki (516 Sutter Street, San Francisco)—I want to compliment Doctor Lisser on his paper, and to emphasize the great importance of the standardization and mainly the obtaining of reliable organic preparations, and to reiterate once more how inexplicable is the fact that so many evident endocrine dystrophies are being overlooked and disregarded by some of our best medical men.

F. M. Pottenger, M. D., (Monrovia, Calif.)—I wish to compliment Doctor Lisser on his excellent work in this important field of medicine. Endocrine disturbances are facing us in our practice daily, and yet until comparatively recent times only a very few of them were recognized.

A very large group of people suffer from obesity. It was formerly thought that this was due to overeating and lessened exercise. We now know, however, that there are certain glands of internal secretion whose function influences greatly the shape and size of the body. In cases of obesity a hypo-function of three glands particularly should be thought of, namely, the thyroid, the pituitary, and the gonads; and then if one learns the particular type of obesity which follows these, he has a clue not only for diagnosis, but for therapy. Doctor Lisser points this out very well in his paper.

Any fat individual who retains weight on small quantities of food should be looked upon as showing endocrine disturbance. Failure to exercise and lethargic habits, instead of being a cause of obesity as is thought in certain types of individuals, particularly those of a hypothyroid nature, are not the cause

of the obesity, but are concomitant symptoms of the hypothyroidism present.

I was particularly interested in the plea for the recognition of the underlying endocrine factors in the fat boy and girl. There are certain times when endocrine, dysfunction can be influenced more easily than others, and one of these times is about the age of puberty. I have seen numerous cases of hypothyroidism show up at this time, and if it is recognized the detrimental influence upon the sexual characteristics of the child may be prevented.

In these glandular obesities it should be remembered that the metabolic rate in many of them will tell us nothing. It cannot be relied upon as a basis for diagnosis or therapy. The general medical man is most interested in the therapeutics of these various conditions, but he cannot carry out a successful therapy unless he makes accurate diagnoses.

There are many things which interfere with satisfactory therapeutic results. First, wrong diagnosis; second, making the diagnosis too late; third, unsatisfactory therapeutic products. It is up to the medical profession to remedy the first and the second; the third must be remedied by biologic laboratories. There are great quantities of worthless endocrine products being prescribed today, but by a close co-operation of the clinician and the biologic laboratory, this should in time be remedied.

Very important progress has been made in this work in recent years, and we now have adrenalin, thyroxin, insulin, pituitrin, a preparation from the corpus luteum, and the promise of active preparations from the anterior pituitary and the ovary. Nor can we deny that results are now being obtained from other preparations which cannot be looked upon as being very constant in their action.

What is needed most in the development of endocrinology is the bringing together of careful clinical and laboratory observations in the study of the clinical picture, and an earnest attempt on the part of the biologic laboratories to give us the best possible glandular preparations for therapy.

W. D. Sansum, M. D., (Santa Barbara, Calif.)—Dr. Lisser's paper brings added proof to a growing belief that a very large percentage of the pathologically obese individuals have some form of endocrine disturbance. His work has materially added to our knowledge of the relation existing between obesity and pituitary and ovarian dysfunctions. We are still handicapped by a lack of clinically proven endocrine products that are active when given orally. But Dr. Lisser's work indicates that some of these substances are effective when coated with salol and given in fairly large doses.

There is one phase of the food requirements of the obese which, I believe, is not fully appreciated by all. Aside from any endocrine disturbance, the obese individual actually needs much less food for maintenance purposes than do individuals in the normal states of nutrition. The abnormal layer of fat, like an asbestos covering over a stationary engine, prevents the loss of heat and increases the efficiency of the food used. I have under my care in the hospital, at the present time, an obese woman who failed to lose any weight on an accurately weighed, nearly fat-free, 1200 calorie diet, although she was walking six miles per day. We found it necessary to reduce her diet to 950 calories per day before she began to lose weight at the rate of two pounds per week. The addition of 30 grains per day of anterior pituitary extract, given in uncoated tablets, failed to cause her to lose weight at a greater rate. I shall next add some form of hypodermic, pituitary medication.

Doctor Lisser (closing)—It is gratifying to receive such cordial agreement from those that discussed this paper. Opposition was expected, for this is the customary attitude toward those that espouse endocrine therapeutics nowadays, be they ever so conservative. The abuse of organotherapy has been so flagrant that the profession has come to demand a specificity and potency from endocrine products, far beyond what they are accustomed to expect from the myriad medicaments they prescribe in daily practice. What drugs in the entire pharmacopeia can compare with thyroid extract, insulin, adrenalin, and pituitrin? Very few—digitalis in auricular fibrillation, opium and its derivatives for pain; mercury, salvarsan, quinine, and ipecac (emetin) as bacteriacidal agents; an antitoxin or two, a serum or two, and a few other drugs, perhaps! Shall we discard the remainder because they are not brilliant specifics? Most of us lack patience in our therapeutic efforts. We expect striking results in a week or two. Such an attitude will invariably fail in chronic ailments, and the great majority of endocrine diseases are chronic, and obesity is chronic.

Meanwhile, I join heartily in the plea of Doctors Janney, Vecki, Pottenger, and Sansum, for more potent standardized preparations from ovary, testicle anterior pituitary, adrenal cortex, parathyroids, thymus, and pineal. The work of Allen and Doisy on an ovarian hormone is most encouraging, and we await daily news from H. M. Evans that his anterior lobe pituitary extract is available for clinical trial.

It would be a boon to humanity, if a galaxy of metabolic experts such as Joslin, Allen, Woodyatt, Banting, Wilder, Sansum, Janney, and others concentrated their energies and capacities on the chemical, metabolic, endocrine investigation of obesity, and achieved for this huge group of uncomfortable people, a relief such as they extended to sufferers from diabetes. And I venture to predict that the supreme triumph will come in the end from the isolation of hormones specific for certain types of adiposity, just as the pinnacle of diabetic research was reached in insulin.

THE GODINO TWINS *

By R. H. VAN DENBURG, M. D., Los Angeles

The Godino twins, natives of the Philippine Islands, are the adopted sons of Mr. Yangco, who represents the Philippines as commissioner to the United States.

At the time these studies were made in Johns Hopkins, they were 11 years of age. They are joined together by a band of fibrous tissue, which measures eighteen inches in circumference, and is in the region of their lower sacrums. The tissue is quite dense and firm, but somewhat flexible.

Lucio is a trifle taller and heavier than his brother, Simplicio. His manner is somewhat more reserved and he is a better conversationalist, as well as a better student.

Simplicio is quick in manner, restless, and asks a multiplicity of questions, rather fearful that someone may do harm to him, and often asked, "Which one of us are you going to kill?"

They both are well educated, speak English fluently, and are quite proficient in vocal and instrumental music. They are extremely proud of their ability to attract attention, which they do wherever they go. They play baseball, tennis, and enjoy all sports common to boys of their age, which they do better than some others not handicapped by a bonded partner.

When they were posing for their pictures they were hard to restrain, yet they enjoyed the "camera snap" and were curious to see everything that took place, but wanted everything to "hurry up." They

* Read to Section on Urology at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May, 1924.

FIG. 1
The Godino twins, joined together since birth, as they appeared at 11 years of age.

FIG. 2
Photograph showing the bond of tissue that joins them together.

FIG. 3
Photograph showing one brother holding the other without aid or support.

would not lie on a rug, but threw it from underneath them, and preferred to lie on the tile floor, as you will notice from the picture.

It was interesting to see how well they adapted themselves to locomotion; one would start to walk or run, and his brother would be swung around and immediately caught his step, which he performed going backward. Then the other one would turn either to the right or left and swing his brother around to his back and proceed at a normal rate of speed with apparently no loss of time. They walk as fast as any person would walk, ordinarily, and can run quite fast. In running, if the one ahead wished to go faster, he simply bent forward and carried his brother on his back. We never heard them argue or quarrel about anything, and each seemed satisfied if the other one accomplished the thing he originally set out to do.

In studying their urogenital tracts, the intramuscular phenolsulphonephthalein test was used on succeeding days. They would not permit us to use the intravenous method, as they did not quite understand it to their satisfaction.

PHTHALEIN TEST—ONE HOUR

	Amount cc. one hour	Specific gravity	Per cent phthalein	Appear. time
Lucio (as host)	476	1008	44	6 min.
Simplicio	435	1008	0	None in 3 hours

	Amount cc. one hour	Specific gravity	Per cent phthalein	Appear. time
Simplicio (as host)	400	1007	48	7 min.
Lucio	510	1006	0	None in 3 hours

From this we may conclude that there is no connection between their urinary tracts. We may also conclude that there is no connection or perceptible interchange of their blood streams. While it is true that simultaneous urination takes place, it apparently is wholly psychic in character and probably is acquired from habit and association.

In studying the coccyx of each, we found that Lucio had a perfectly formed, normal coccyx, rather well developed, while Simplicio presented a rather rudimentary type with the tip or last bone missing.

The chief difficulty we found in their lower intestinal tracts. A careful study reveals that Lucio, the larger twin, has a normal rectum with a functioning anus, while Simplicio has no anus, and his rectum empties into that of his brother. Where his anus should be is only a slight depression that admits the tip of the little finger for about one-quarter of one inch. We were unable to get a radiographic

FIG. 4
A close-up photograph of the bonded union, which also shows but the one anal opening.

picture, as they would not submit to the test of injecting the lower bowel.

SUMMARY AND CONCLUSIONS

1. The union joining the twins is fibrous and not bony, and measures eighteen inches in circumference.

2. It is flexible and somewhat elastic, as demonstrated when one brother holds the other at right angles.

3. There is no inter-relation between their urinary tracts, as evidenced by the phthalein test.

4. There does not appear to be any perceptible interchange between their blood streams.

5. Lucio has a perfectly formed coccyx.

6. Simplicio has a rudimentary coccyx.

7. Lucio has a functioning rectum and anus.

8. Simplicio has an imperforate anus.

9. The rectum of Simplicio empties into that of his brother, Lucio.

10. From these studies we feel convinced that these twins could be separated with comparative ease without jeopardizing the life of either.

11. The chief difficulty lies in the operation on the rectum of Lucio, and the rectum and sigmoid of Simplicio.

12. Whether the artificial anus of Simplicio would function could only be determined by operation.

548 South Spring Street.

Women's Magazines That Read Like Quack Medical Journals—"Many pages of several women's magazines are filled with untrue information in physiology and hygiene, dressed in attractive form and color, and repeated over and over every week or month," says the New York State Journal of Medicine editorially. "And alongside of the misinformation there may be a column or two of real information on some food topic or hygienic measure, but the scientific article is seldom repeated or dressed attractively. Moreover, the advertisements force themselves upon every reader, while the scientific article is read by only a small group, and is studied by still fewer."

Just Doing Nothing—"So I'm going to a place I know well, where there are no papers and no telephones, and where the mails are three days late. I am going to tramp the hills and rest in the forest and swim in the lake, just me and myself; and I'm going to lay me down under a bearded old cedar and let my mind drift off across the lake to the blue haze of the distant hills—'the hills whence cometh my help.' By and by, when I feel the current of power strong within me, when my emptiness has been filled from the limitless reservoirs of the earth, I am coming back. Truly, a man should be about his business."—Angelo Patri (Cosmopolitan).

"Psychiatry, like each of the other branches of medicine, has come to be recognized as one of the subdivisions of the great branch of biology, free to make use of the scientific method, duty bound to diffuse the knowledge that it gains, and privileged to contribute abundantly to the lessening of human suffering and the enhancement of human joys, says Edward A. Strecker in the Atlantic Medical Journal. "General practitioners of medicine and medical specialists, at least the more enlightened to them, welcome the developing science of psychiatry, are eager to hasten its progress, and will gladly share in applying its discoveries to the early diagnosis, the cure and the prevention of disease."

EDITORIALS

ON BEING "OVERDOCTORED"

We are all familiar with the story of how a court jester of the sixteenth century won a goldpiece by proving to the king that there were more "doctors" than there were any other class of people. The jester bandaged his face, put on a look of suffering, and fared forth in the streets. Every person he met had a remedy to propose. At last the jester returned to the king and he, too, offered remedies for his suffering vassal, who thereupon removed his bandages and claimed his goldpiece.

Amateur "doctors" are about as numerous now as they were in those days. Professionals are more numerous than they were then. It is easier to get a license to practice the healing art in California now than it was in the days of the king's jester story. In spite of that fact, only a comparatively small number of persons engaged in diagnosing and treating disease bother to take out a license of any kind. Probably between 30,000 and 40,000 persons are engaged in the practice of medicine in California. With a population of approximately four million, therefore, nearly one in each hundred of population is some sort of a "doctor."

The following estimate of legitimate physicians, "doctors," and "healers" of the state is not claimed to be accurate because accurate figures are impossible to get, but in the aggregate the estimate is conservative:

Physicians, 8000. Osteopaths, 2000. Chiropractors, 6000. Midwives, 2500. Naturopaths, sanipractors, and miscellaneous drugless practitioners, 2000. Christian Science healers, 3000. Preachers and other mental, emotional, and religious healers, 2000. Electronic vibrationers, light manipulators, and others of this group, 500. Psychologists, psychoanalysts, and others in this group, 500. Dietetic and nutrition "doctors," 200. Mail-order "doctors," 500. Counter prescribers and patent medicine venders, 2000. Representatives of various educational, welfare and uplift organizations who are diagnosing and treating disease without adequate education or license, 1000. Miscellaneous special fakirs of one sort or another not included in the above, 500. Medical, health, longevity and similar institutes; stores, shops, organizations or what not that are practicing medicine as organizations and not as individuals, 1000.

These figures do not include the large and useful groups of nurses, public health nurses, medical social workers and other technicians engaged in their useful and legitimate work under supervision of physicians, health officers, hospitals, and other necessary organizations. The list includes only those who are engaged in diagnosing and treating disease. Comparatively few of these people are licensed to do the things they are doing. License is so easy to get in California that most any person with a com-

mon school education and a fad can get one. The requirements for licensure are constantly being made easier, and yet the number of unlicensed "doctors" increase in number and variety.

There is no law in California that requires adequate education for the practice of the healing art. Even the "Medical Practice Act" is a miserable compromise between various types of expediency, and the other laws are even less efficient. They are all ineffective as to punishment for their violation, and they are both ineffective and dangerous when considered from the standpoint of community health.

The fact that our State stamps its approval upon "doctors" so easily and makes such inadequate distinctions between the educated, the uneducated and the fakir is becoming widely known. This local condition has a reputation of being so confusing that hundreds of visitors coming to the state are careful to bring with them a list of educated physicians in various parts of the state. They consider this as much of a necessity as if they were going on a visit to some Oriental country. The office of the physicians' association receives many inquiries of this character from all parts of the world from other physicians, hospitals, business houses, tourist agencies, hotels, banks, and individuals.

HOW MANY MIDWIVES ARE THERE IN CALIFORNIA

Answer: No one knows

Our readers will remember that some months ago wide publicity was given to a statement that there were but an insignificant number of midwives in California. Those familiar with the health situation felt that this statement was very inaccurate. We started out to get the facts. The investigation has not gone far yet, but the results to date are very enlightening.

According to the records of the State Board of Medical Examiners, there are 11 licensed midwives in the city and county of San Francisco. According to the figures of the city and county health officer, there are 105 registered. Doctor Hassler, health officer of the city and county, supplies us with the names and addresses of these 105 people who are registered, and according to the tax-collector's records 18 of them are licensed by that bureau.

If these facts obtain elsewhere in the state—as they probably do—the number of midwives practicing legally and illegally in California is in the thousands rather than hundreds as has been claimed. Some of these, although not holding state licenses, are nevertheless allowed to pay their taxes as midwives to political units to practice obstetrics.

There ought to be closer co-operation between various licensing and tax-collecting departments of our state and local governments, particularly as it applies to the conservation of the public health. Legally, only the Board of Medical Examiners has authority to license midwives, and county and municipal tax-collectors should refuse to collect taxes from people not so licensed. We may confidently expect that the Board of Medical Examiners will check up with the tax assessing and licensing departments of cities and counties and with records in health offices of various political units, and prosecute people who are practicing midwifery without a license from their board as required of them by law.

EXTENSION WORK OF THE CALIFORNIA MEDICAL ASSOCIATION

Under the general title of "Extension Service," the California Medical Association has for many years been developing and expanding a graduate instruction movement among its county societies and members. The secretary of the association has on hand an ever-changing list of speakers and their subjects which she is ready to supply to any county society, or any other worthwhile organization, desiring a speaker for any meeting. Some of the members also have signified their willingness to conduct clinics and render any other graduate service they can to their fellows upon request. The volume of this work has constantly increased, and the movement has spread in one form or another until now it is widely carried forward in a large part of the country.

Doctor Emma W. Pope, secretary of the association, is now preparing a revised list of the Extension Service offered, and all members interested in the subject are requested to communicate with her, giving her one or more titles they are willing to discuss before medical meetings and semi-medical meetings, and at the same time to inform her whether or not they are willing to conduct clinics, and if so upon which particular branch of medicine.

This is one of the most important services that physicians can render to each other. Those who can and are willing to serve should notify the secretary promptly, so that the list may be published and distributed throughout the Western States.

FACTORS INVOLVED IN THE DISTRIBUTION OF MEDICAL KNOWLEDGE

Medical progress moves forward in irregular cycles. Medical literature follows along these same cycles. An outstanding discovery is made and thousands of students take up the subject, elaborate it, modify it, carry it far into fields unthought of by the discoverer. The final findings become incorporated in text-book literature; and medical thought of the pioneering type takes up something else.

In recent years, movements in medical investigation of new subjects and restudy of old subjects have been promoted by other forces: particularly by public interest aroused by the exposition of theories in the public press. If one with a special idea, theory, or fact can arrange for sufficient advance publicity, a new society—often a national one—will be organized by those who know how to capitalize free publicity, and within a short space of time real medical investigators are at work on the problem and medical literature is reflecting the findings.

Just now, we are having a run of much-needed investigation upon the various problems connected

with the circulation. Some new facts are being brought out and restatement of known facts is bringing about a new sense of values about one of the most important subjects in medicine. Much of the recent work has to do with phases of cardiac and general circulatory efficiency, with the forces that tend to sustain and the forces that tend to injure, both in health and in disease.

Few physicians have the time, and they should not be expected to try to keep up with the advances made in a thousand centers and published in hundreds of journals, many of them expensive and very limited in distribution. And yet, new knowledge is of limited value to the great public unless it can be distributed and made useful to the thousands of physicians who advise millions of people.

It is precisely at this point that general medical journalism does not take full advantage of its opportunities in our opinion. And it's not taking advantage of its opportunities explains in no small degree why visitors to physicians' offices see so many unopened journals stacked up in some corner. We believe it to be a duty, as well as a privilege, of a magazine like California and Western Medicine, for example, to present careful digests prepared by recognized teachers and students of special subjects to its readers at more or less frequent intervals.

After all, more than 90 per cent of the physicians of California, or any other state, are primarily concerned, and rightly so, with what we may term the retailing of medicine to the public. No retailer can take the time to go to hundreds of factories and become familiar with all the details of production. He looks to his distributors for accurate information, which he passes on to the consumer. Retailers of medical advice and assistance have a right to look to their publications and organizations for collection and distribution of medical information. Distributing agencies must search the medical schools, laboratories, hospitals and other production centers, and other magazines, reports and what not, and buy wholesale through teachers, investigators, and special writers.

The practical difficulties in welding such an effect tive chain together is its second link—the teachers and recognized leaders and writers in their special fields. As the physician is too much occupied with his problems and with his patients to dig through tons of literature for the rare kernal, so the research workers, teachers, leaders, and writers are too busy to take time to occasionally assemble and correlate the newer knowledge and particularly the newer arrangement of values as they effect improvement in health, and as they are applicable in limiting disease and treating the sick.

Every issue of California and Western Medicine should carry one of these special review articles on some appropriate phase of medicine. They should be prepared by men in our own territory.

Will you, medical teacher, research worker, specialist (whether in public or private health practice), medical economist, and family physician help us do this?

WASTING DISEASES OF INFANCY AND EARLY CHILDHOOD

The conclusions now crystallizing in the minds of many citizens as to the simplicity of the problem of so-called nutritional disturbances of infancy and early childhood are based upon widespread teachings of the causes and remedies secured from "literature" thinly veneered with pseudo medical science. Serious medical students of this great problem of metabolic or nutritional disturbances still regard it as one of the most complex and difficult in all the broad field of health. It is only partially solved as to the various groups of causes, and there is no general agreement beyond those of general principles as to treatment.

It is known that the causes which manifest themselves in some form of nutritional disturbance are of several varieties and that safe, sound care, including diet, can only be wisely directed by a competent physician after careful and frequently repeated personal study of the individual child. Our foremost students agree only upon the magnitude and complexity of the problem.

Witness the diverging opinions and conclusions we have heard or read during the last few months between two such great leaders of medical thought as Finkelstein of Germany and Leonard Parsons of Great Britain. Professor Finkelstein was recently in California and gave a series of medical lectures and clinics. About the same time Leonard Parsons was delivering the Goulstonian Lectures in London. These two authorities differ quite materially upon fundamental questions of cause and treatment. Others of almost equal prominence in our country and elsewhere do not fully agree with either Finkelstein or Parsons, nor with each other.

And yet, curiously enough, if several of these outstanding authorities were each to study and prescribe for the "malnutrition" of an individual child, they would differ but little in their methods or in the results obtained. This is the consoling feature of medical progress.

SPECIAL ARTICLES

The article by Doctor Albion W. Hewlett on "Auricular Fibrillation" (page 479) is the first of a series of special articles which will be prepared by invitation and published in California and Western Medicine.

Medical progress is being made so rapidly in so many phases of the broad and ever-widening field of medicine; and the records of acquisition of new knowledge sufficiently tested to warrant its acceptance and application in the limitation and treatment of disease are so buried under much chaff in hundreds of publications that no physician who expects to do anything else can possibly find the kernels he is always looking for. It is in the hope of relieving this situation somewhat that California and Western Medicine has inaugurated this series of summary and critical review articles. If they should render no greater service, they will at least point the way to discriminating reading, and for that reason each of these articles—contrary to our

custom—will be accompanied by a more or less complete reference reading list.

But these articles should, and no doubt will, accomplish much more than this. Surely they will if our readers will help with suggestions both as to subjects and authors. Readers will assist the cause of better health for everyone everywhere all the time, and assist CALIFORNIA AND WESTERN MEDICINE in serving that cause, by sending suggestions and comment to the editor. Physicians in general practice away from the great teaching centers are particularly invited to send suggestions regarding subjects or authors, or both, to the editor.

ABSORPTION OF LOCAL ANESTHETICS FROM THE BLADDER

The mucosa of the bladder is generally regarded as a relatively poor absorbing surface for all kinds of agents, including local anesthetics. The local anesthetics, however, act sufficiently to abolish pain in this region, and this is practically tantamount to saying that absorption occurs. Moreover, the not infrequent occurrence of systemic reactions or disturbances from the employment of local anesthesia in the bladder confirms the assumption of absorption. The possible occurrence of toxic reactions is of much concern to the physician. The employment of such an agent as epinephrine, together with cocaine, to prevent or retard the absorption of the anesthetic does not always mitigate the toxicity arising from local anesthesia. On the contrary, the systemic reactions under these conditions may even be augmented, especially if the epinephrine is reinjected into the tissues, or injected systemically for resuscitation. This is due to the well-known sensitizing action of cocaine (even in small and relatively ineffective doses) to epinephrine. Hence, it is of the greatest importance to bear in mind the important function of absorption, which in the bladder is probably subject to a greater number of influences, such as chemical reaction, variable composition of urine, etc., than in other regions of the body.

The results of studies on bladder absorption of local anesthetics in different animals are variable, if not contradictory. The variability of the results reported may be attributed to the employment of different species and methods, and criteria of absorption by the investigators. In his studies on dogs, Macht of the Johns Hopkins Medical School, who reported on this subject a few years ago, used changes in blood pressure and respiration as the criteria of absorption. Macht concluded that cocaine and alypin were not demonstrably absorbed from the bladder. However, the very recent and extensive studies of Saito from the Pharmacological Institute in Koenigsberg indicate that there is considerable bladder absorption of all local anesthetics and some other agents.

Saito employed rabbits and the chemical analytical methods of the German Pharmacopoeia for quantitative estimation of the anesthetics. This direct method appears to be better suited for settling the question of absorption than the indirect method of Macht. Saito used more than ordinary precautions in the conduct of his experiments. Before the anesthetic was placed in the bladder both ureters were ligated close to the bladder, and the penis was also tied off. Next, the bladder was opened by an incision and washed with isotonic sugar solution through a catheter. Then a definite quantity of the anesthetic was introduced; the wound was closed, and the animal kept warm during the experiment. At the end of definite time intervals, the unabsorbed solution in the bladder was carefully removed and the quantity of the anesthetic left behind determined. Under these conditions, Saito found that 60 per cent of alypin and 45 per cent of cocaine were absorbed in three hours. Only 15 per cent of novocaine (procaine) was absorbed during the same period, this anesthetic being more slowly absorbed and not destroyed or diffused. The concentrations of the anesthetics used were 1 and 2 per cent, and absorption was roughly proportional to the concentration. Weak alkalinization (pH = 8.0) of the solutions considerably increased the absorption, and this agreed with the well-known improvement in anesthetic efficiency of cocaine when mixed with bicarbonate. That is, in the presence of alkali the alkaloid base is liberated and better absorbed by the mucosa. Strychnine was found by Saito to be absorbed rather slowly, only 36 per cent being removed in three hours. The absorption of sodium chloride solution in concentrations less than 1 per cent was better than with higher concentrations. Saito also observed that the introduction of salt solution, together with the anesthetic, into the bladder did not alter the quantitative absorption of the salt or of the anesthetic.

The results of Saito on rabbits leave no doubt that the absorption of local anesthetics from the bladder occurs. To what extent the results are transferable to man cannot be said. However, they suggest the possible existence of a similar function in the human bladder, and, at least, indicate the desirability of securing further information regarding the behavior of this important organ toward an active and widely used group of drugs. In any case, caution and care should be exercised in the use of local anesthetics in the genito-urinary tract, for the neighboring regions, namely, the ureters, urethra and prepuce, are even better absorbing surfaces than the bladder.

Macht, D. I.: Journ. Pharm. Exp. Therap., 1921, 16:435, "On the Absorption of Local Anesthetics through the Genito-Urinary Organs."

Saito, Y.: Arch. exp. Path. Pharm., 1924, 102:367, "Die Resorption örtlich betäubender Mittel von der Schleimhaut der Harnblase."

DOCTORS GIVE EVIDENCE

Of all the damaging influences operating against physicians there is none more serious than that brought about through so-called medical testimony. At the present time the whole profession is being criticized again, and individuals are being designated as shyster doctors in editorials from one end of our country to another—and to a degree, justly so. As one editor puts it, *"when doctors, who above all people should be human, honest and judicial in weighing evidence, in culling the false from the true, and in arriving at just and fair decisions, become biased advocates and even dishonest advocates of any cause or any person, for money, they ought to have*

their licenses to practice medicine taken away from them and be discredited in their own organizations."

There is, of course, no answer to criticism of this kind. It is true—at least too much of it is true. It is becoming common for criminals to engage a doctor to assist their attorneys in twisting evidence in their favor. Plaintiffs and the state are being required more and more to apply similar methods. It is said that it is as easy to find these medical advocates as it is to find a lawyer whose business it is to use every quirk consistent with legal ethics to either clear his client or find him guilty, as the case may be. It is a common thing to have in our own courts from one to three or four supposedly honest ethical physicians paid by one interest, and another group paid by an opposing interest, fighting as bitterly to confuse the truth as some of the lawyers who are on the two sides of the question.

Look, for example, at the disgraceful spectacle which recently went on in the courts of Chicago. On account of the prominence of the young murderers and the particular heinousness of their crime, all people everywhere followed the course of the evidence fully.

Again, we found many of our widely known specialists psychoanalyzing, twisting, turning, and doing everything they could to defeat the cause of justice, and their evidence having to be rebutted by other groups who were, at least in this instance, fighting for the truth.

Of course, as physicians we know that the picture is not so dark as it appears to be on the surface. Nevertheless, it is dark enough in all conscience. We know that many of these alleged expert "doctors" are "criminologists," "psychologists," "psycho-pathologists," "professors of bean growing," or something else, who are being quoted as legitimate educated physicians. They are not.

Similar situations are frequent in courts elsewhere. Attempts have been made from time to time, including the last annual meeting, to get a rule of ethics covering the point by the house of delegates of the A. M. A. One prominent attorney has been quoted as saying that much of his success in getting criminals acquitted was due to his wisdom in picking the right sort of doctors to testify for him, and that they were the cheapest people in the market to buy.

Doctors often are useful in court procedures. Their expert knowledge should be utilized perhaps more often than it is. It is a fact also that conditions often arise where there may be honest differences of opinion among physicians as to pertinent facts These things are expected and provided for, but many of their disagreements when assisting attorneys on two sides of a trial cannot be explained along these lines.

DIRECTORY OF THE CALIFORNIA MEDICAL ASSOCIATION

The directory of the members of the California Medical Association, as authorized by the House of Delegates of the C. M. A. at its last annual meeting, is now being published. The executive committee have authorized the free distribution of one copy of this directory to each member of the association. Additional copies may be had by payment of a fee to be decided upon, from Doctor Emma W. Pope, secretary of the California Medical Association, 1016 Balboa Building, San Francisco. The executive committee in authorizing this publication included in their resolution a statement that *"unofficial medical directories are not sanctioned by the California Medical Association."*

This official directory will have considerable value if distributed *only* to members of the organization. It would be unfortunate, however, if advantage is not taken of distributing this directory in various public places throughout the state, so that it may be available to all people who are looking for a list of reputable ethical physicians of the state. It would also be a splendid thing if each county medical association, particularly those containing twenty or more members, would have at least that part of the directory referring to their county reprinted and see that these reprints are given public distribution through local news distributing agencies, as well as leaving copies of the reprint on tables in their waiting rooms. One of the chief reasons why more of the practice of medicine—particularly for the transient population in a great health center like California—is not in the hands of educated ethical physicians is, chiefly, because lists giving the names and addresses of these physicians are not available. The C. M. A. has taken a fine stand in authorizing the publication of this directory. Its officers and members ought to increase the value of the directory by making it as nearly universally available as is possible.

It is hoped in subsequent annual editions that this directory may be expanded to include mention of the specialty, if any, that each physician is engaged in; also that it may include all accredited hospitals of the state, as well as all other scientific agencies of medicine, wherever they may be located. What a fine thing it would be if any person—stranger or otherwise—in this state could pick up an authoritative directory and find a list of the physicians, hospitals, laboratories, x-ray plants, and other information that the public is interested in!

HOSPITAL CONFERENCE AT LONG BEACH

The Fourth Annual Conference of the Hospitals of California will be held at the Virginia Hotel, Long Beach, Thursday, Friday and Saturday, November 6, 7, 8, 1924. The Council of the California Medical Association will meet at the same place on Saturday, November 8. There are also Southern California medical associations meetings close enough to the same dates to make a continuous visit of a week or more to the southern part of the state profitable and enjoyable.

The Hospital Conference will have before it a number of questions of the most vital concern to every hospital, clinic, laboratory, physician, nurse and other person concerned with the cause of better medicine. Some of the most important of these questions will not be published in the program. Every hospital, clinic, group, x-ray or other laboratory, and other accredited medical organization is invited to send representatives. As large an attendance of representative people as possible should compose this conference, and it may be confidently predicted that all who go will find benefits that will compensate them many times over for the expense incident to the trip.

The program promises to be unusual in several important particulars. One of the outstanding fea-

tures that will be discussed is the alleged excessive cost of hospital service as compared with other humanitarian services. The committee appointed to investigate this problem at the last conference will make its report. Distinguished hospital and medical economics students from other points will be present to take part in the discussions.

Doctor F. L. Rogers of Long Beach, chairman of the local committee of arrangements, reports enthusiastic co-operation of all business, social and medical organizations of the city in an effort to make this the most valuable of all the conferences thus far held. Long Beach at this time of year is a delightful place and the Hotel Virginia as headquarters, as well as other hotels of the city, are prepared to supply accommodations at reasonable rates. Why not write direct to the hotel or to Doctor Rogers, as chairman of the local committee of arrangements, and make your plans to attend this conference?

MEDICAL CARE FOR INDIGENTS

In an editorial note the Ohio State Medical Journal says:

"The 'district physician plan' for caring for the indigent sick in Columbus has been changed by the Board of Health, upon the recommendation of Dr. James A. Berr, city health officer.

"Under the old plan, district physicians were appointed at a stipulated monthly wage to care for the indigent sick within the prescribed areas. Under the new plan, all indigent patients able to visit a physician's office will be required to go to one of the Ohio State University dispensaries. Those confined at home with sickness will be investigated by a representative of the department. If the services of a physician are needed, the family physician will be summoned and paid by the board of health at the rate of $3 per visit by the city."

The obsolete "district physician plan" of board of health or the "neighborhood physician plan" of education boards—the chief difference being in different control—has long since been given up in progressive communities. It is only now being promoted in certain centers in California.

It is interesting to see Columbus, Ohio, abandon it because of the underlying principle that always made it unpopular. This being that people, including poor people, resent, as they should, being dictated to as to whom they will have to care for them when they are sick.

Of course, Columbus jumped from the frying pan into the fire when they limited allowable service for the ambulatory sick poor to one clinic. Another shift will be in order in due time, basing this prediction upon the adage that nothing is settled until it is settled right. Right means the right of choice by the patient, rich or poor, within reasonable limits, of who shall care for him when he is ill or thinks he is.

The Columbus health officer recognizes this principle in establishing the highly commendable plan of allowing those confined at home with sickness and who need a physician's services, to summon their family doctor, whose fee is paid by the health board.

This most effective, least objectionable and least criticized method of furnishing medical care to the indigent is the custom in several California communities.

Medicine in the Public Press

Ten Thousand Healers Boasted by California!!—The press of the West Coast recently emphasized, as well they might, a statement to the effect that California had 10,000 licensed healers of one sort or another. These figures do not include faith healers, many of the specialists on the care of various organs and appendages of the body, and the many wholly ignorant or only technically trained people who are practicing the healing art.

New York's Unhygienic Bakeries—According to extensive newspaper publicity, New York City still has 3077 bakeries located in cellars and, therefore, unhygienic. This in violation of the law passed in 1913. Many of these bakeries are habitations for insects and rodents, say the headlines.

The interesting point to Western health officers and other physicians is, that nearly all the "surveyors" who come out to tell us how to conduct our health affairs live within a few blocks of where this sort of situation exists.

Sixteeen Rules of Health—Page advertisements of the New York Life Extension Institute in metropolitan newspapers recently gave what they consider the sixteen most important rules of health. These are:

1. Ventilate every room you occupy.
2. Wear light, loose, and porous clothes.
3. Seek out-of-door occupations and recreations.
4. Sleep out, if you can.
5. Breathe deeply.
6. Avoid overeating and overweight.
7. Avoid excess of eggs, meat, flesh food, salt, and highly seasoned food.
8. Eat some hard, some bulky, some raw foods.
9. Eat slowly.
10. Use sufficient water internally and externally.
11. Evacuate thoroughly, regularly, and frequently.
12. Stand, sit, and walk erect.
13. Do not allow poisons and infections to enter the body.
14. Keep the teeth, gums, and tongue clean.
15. Work, play, rest, and sleep in moderation.
16. Keep serene.

We believe that many of the most important rules of health are not touched in this group, and we believe this list can be improved upon. We, therefore, invite similar lists of anywhere from five to twenty rules of health, which we will publish over the signatures of members or organizations who may care to take the trouble to send them in.

What Kind of Milk Are You Drinking?—The press of Santa Cruz County has recently given considerable space to a discussion of whether or not milk cows should be inspected and the quality of the milk regulated by well-enforced county ordinances. One of the discussants said it was an impracticable procedure under state, county, and municipal laws and regulations. The state inspectors do periodically examine the milk cattle of, at least, the larger dairies. If they order a tubercular cow killed or disposed of, it is eitirely possible for the owner to sell this cow to some private family who may keep on using the milk.

Many interesting features were brought out that are rather staggering to people who believe that all California milk is safe to drink.

Fat So Thoroughly Removed That It Can Never Get Back—Several members have forwarded us copies of an advertisement in the public press where a licensed doctor in this state claims that under Doctor Blank's method of treatment not only is excess fat removed, but under her system "such condition of

obesity will never again return." Those who belong to the class so accurately defined by Barnum of circus fame are invited to attend.

Goose Grease for Happiness — Under this title George Ade (Cosmopolitan) writes:

"Any young interne in a loud-smelling hospital will tell you that the all-wise 'Doc' of our boyhood days was an animated reservoir of ignorance. Likewise, the trained nurse with the hazel eyes will assure you that the old ladies who used to group themselves around every sickbed were merely advance agents for the village undertaker.

"They tell us that all of the pallid heroines of history were not broken-hearted, as reported. You can't break a heart. It is a combination of outer casing and rawhide. All of the anemic maidens we have read about were suffering from a lack of vitamins. The balanced ration may take most of the romance out of the world. It is almost impossible to be in love and feel well at the same time.

"A venerable lady who smoked a pipe told me, many years ago, that white walnut bark should be peeled from the tree in the dark of the moon. If peeled upward, it was a purge. If peeled downward, it was an emetic. She spoke with much conviction.

"The pin-feathered medical student will say that the old lady was daft. How does he know? Has he ever tried out white walnut bark in a large number of cases, working in the dark of the moon, peeling first upward and then vice versa? He won't even admit that sassafras tea, taken in the spring, thins the blood which has become all thickened up with sausage and buckwheat cakes during a long winter. This, in spite of the fact that millions of people have actually diluted themselves with sassafras, and are ready to make affidavits.

"Out in the brush there is still an occasional old-fashioned mother who keeps the baby lubricated and calmed down by permitting it to work on a strip of bacon rind. This is contrary to all rules. The baby-ologists say that a young and toothless child requires orange juice. Yet thousands of bacon-rind babies have grown up to be Congressmen, chiropractors, county agents, actresses and officers in the Federation of Women's Clubs.

"Let Dr. Billings and the Harvard savants say what they will, when the children out our way begin to act squirmy, we will give them pumpkin-seed tea."

Narcotic Education Association Drastically Criticizes the A. M. A.—In a mimeographed document called "The Report of the President of the Board of Directors of the International Narcotic Education Association at the Meeting Held at the Biltmore Hotel, Los Angeles, July 31, 1924," signed by Richard P. Hobson, president—after outling some of the activities of that organization—there appears the following:

"While the members of the Narcotic Control Board, created by the Jones-Miller Act, namely, the Secretary of State, Secretary of the Treasury, and Secretary of Commerce, are deeply in sympathy with the association and its work, the President regrets to report that so-called experts on this board are actively opposed to all for which the association stands. This opposition was felt in our efforts before both committees in Congress, before the convention of the American Medical Association, before the committees on resolutions of both national conventions. This opposition not only apologizes for the drug addict and opposes interfering with the addict getting his drug, but belittles the menace itself, combats publicity, and fights the education treatment.

"There are indications that this sinister opposition, headed up in the government itself, is active from several important centers, attempting to discredit the work of the association and to allay the alarm which the association is systematically arousing in the public mind.

"It was inevitable that the association should draw the fire of this large enemy of society, but it is startling to find its intrenchments located where they are."

Deaths by Suicide — According to an article by Doctor Frederick L. Hoffman, that has been extensively commented upon in the public press, the general suicide rate for the country is "normal," but this investigator is concerned at the remarkable increase of suicide among the well-to-do and the highly educated. The highest suicide rate in the United States, according to the author, is San Diego, where there was the extraordinary rate of 50.5 per 100,000 population during the year 1923. Of the thirteen cities in the country with unusually high suicide rates, eight are located in Western America. No explanation is offered for this very great tendency toward suicide among the citizens of Western America.

An even more startling conclusion, taken from the statistics of Save-a-Life League, is the unquestionable increase in morbidity among children. Upon this point, the author says:

"Unquestionably, the number of morbid children is increasing. Our processes of education, our changed condition of home life, our confused environment, all tend to a high rate of self-destruction, but in the registration states of the United States, including about 80 per cent of our population, and for the three years—1920, 1921, and 1922—there occurred one death from suicide among children, ages 5 to 9; 121 deaths from suicide at ages 10 to 14, and 962 deaths from suicide at ages 15 to 19."

One conclusion definitely may be deduced from these statistics (assuming, of course, their accuracy), and that is, that the old idea that suicide was associated with lowering skies and depressing humid atmosphere will have to be discarded.

High Class Advertising—A casual examination of the various magazines, newspapers and other advertising agencies will suggest to the mind of most thinking, intelligent persons that the advertisements dealing with toilet articles, perfumes, powders, etc., and other near-medical products are rapidly overshadowing the field formerly held by fake patent medicines. No further have the remarkable claims gone than in the field of dentrifices. It is pleasing to note the unusually high note struck by Colgate & Company in advertising their Ribbon Dental Cream. Physicians wonder why more people don't find it advantageous to use this type of advertising. No, California and Western Medicine does not carry Colgate's advertisement. We only wish we did.

Christian Scientists Renew Again Their Attacks Upon Vaccination—In one of the recent publications of the Monitor, under the headline "Smallpox Scares Played Out," much is made of an article by a "doctor" who is quoted as saying that:

"The creation of smallpox scares for the purpose of stimulating business for vaccinators and vaccine manufacturers is becoming pretty well played out. Evidently, the Department of Health recognizes that fact and, according to reports in the newspapers, will substitute mumps and pneumonia.

"These periodic smallpox scares come to life about vacation time, and are used as a lever to vaccinate school children at a time when they should be left free to enjoy their holidays. The extensive propagation and coercive infliction of a dangerous disease, under the false pretense that it is necessary for public good and is safe and harmless, is obviously in the nature of a gross medical malpractice which is against public policy and public health."

Practicing Medicine by Mail—Many of the popular magazines are practicing medicine by mail. They do not place their advertising in the paid for space, but set it up attractively on reading pages. Prob-

ably more than a million people, for example, read this: "If yours is the difficult problem of feeding a delicate child, an invalid, or a grown-up person whose appetite has failed, write the —— magazine's Home-Making Department and our nutrition experts will help you. Tell us the circumstances of the case, enclosing a stamped envelope for our reply. Address The ——, New York."

Birth Control League Would Make Everyone Her Own Doctor—According to press dispatches, another traveling agent of the Birth Control League has made a trip from New York to California in order to induce our benighted citizens to modify the laws of California with reference to birth control. This person is quoted as objecting strenuously to the fact that only physicians can now under California law restrict births; and they can do it only for very good and sufficient reasons. This person wants the information broadcasted so that apparently everybody will know how to control birth by preventive or terminative measures.

It is understood that attempts will be made in the coming legislature to make such information so public that everyone can be her own doctor—can go to a drug store and buy contraceptive and abortive methods.

We do not know why this league picked on California. The census bureau has recently told us that our percentage of births among the adult female population is lower than in any other state in the Union.

Every physician and every drug store knows that contra-ceptive and abortive information is already widely available. The trouble is that it still takes skill and technique, which the average person neither has nor can comprehend. A law won't give it to them.

Are There Any Fat Women?—"She may confess to being plump, but that is the limit of her admissions," says the San Francisco Chronicle, editorially. "If there are any fat women in the world we have no admission of it. Women may confess to plumpness, but as to being fat—never! So when Dr. A. H. Waterman of Chicago warned that 'American women are becoming fair, fat and flabby, and inclined to become narcotic addicts from taking obesity cures,' it did not mean anything to them.

"The road to the perfect form is not paved with obesity pills. Good healthy exercise, plenty of fresh air, and wholesome food in reasonable portions are the enemies of plumpness. They may not be so easy to take as a few pills or a spoonful of cure, but they produce the results, and that is what is most important to those who fear to look scales in the face."

Birth Control—Newspapers gave considerable prominence to the sayings and doings of a recent visiting birth control league official. It is said that she "presented some startling facts. They have stimulated diversified reactions among our progressive women and medical men. The most salient reaction is opposition, based upon the belief that the league's purpose, if accepted in its entirety, will lower the moral standards of our race."

This agent is credited with the amazing statement that "woman has learned that ignorance is her greatest handicap in her fight for sex equality. And birth control is the first important step she must take toward becoming man's equal, for **woman may never call herself free until she is mistress of her own body.**"

Again she is quoted as saying that "children should be conceived in love and only begotten under conditions which will render possible the heritage of health. No parent has a right to bring a child into the world unless he is equipped to make of that child a creditable citizen."

She attempted to create a sentiment that would **"forbid the imparting of birth-control information by physicians."**

No answer has been given as to whom she would entrust with this great responsibility. She apparently did not know, or if she did, failed to inform her audiences that anyone who can read can get all the information there is in illustrated books.

In commenting upon the question, Doctor Hassler expressed the sentiments of most physicians when he said: "I am thoroughly in favor of the organization of a medical commission which may pass upon and carry out sterilization of persons who are subnormal, insane, or constitutionally diseased. For by this means alone shall we be enabled to prevent the birth of babies who, because of inherited defects, may become public charges."

"But," he said, "I am not in favor of a law which would empower physicians to impart information regarding the prevention of conception, because such knowledge might be passed on without discretion and thus endanger our entire moral structure."

All knowledge of contra-ceptive and even abortive methods are well told and profusely illustrated in books and other literature, so frank and dangerous to society that one wonders how it gets distributed. A small book this editor found on his desk recently is a particularly dangerous but remarkably accurate description (well illustrated) of how to prevent, and terminate, pregnancy. Also how to avoid and treat venereal diseases. It is in popular language. If this book secures wide distribution, much harm will result.

Heredity and Environment—Professor H. S. Jennings (The Scientific Monthly) says among other interesting things that the "knowledge of heredity has changed fundamentally, and in consequence the relations of environment to heredity have come into a new light.

"Under the same conditions objects of different material behave diversely; under diverse conditions objects of the same material behave diversely. Anything whatever that happens in any object has to be accounted for by taking into consideration both these things. Neither the material constitution alone, nor the conditions alone, will account for any event whatever; it is always the combination that has to be considered.

"Organisms are like other objects in this respect; what they do or become depends both on what they are made of, and on the conditions surrounding them. Always both have to be taken into account.

"The substances passed from parent to offspring, giving rise to the phenomena of inheritance, are a great number of discrete packets of diverse chemicals, imbedded in a less diversified mass of material. The masses formed by the grouping of these packets are visible under the microscope as the chromosomes. The number of different kinds of packets that go into the beginning of any individual is very great, running into the hundreds or thousands.

"Development we know consists in the orderly interaction of these substances—with each other, with the rest of the cell body; and with the oxygen, food and other chemicals brought into the cell from outside; all under the influence of the physical agents of the environment. **The final result—what the individual becomes—is dependent upon all these things; a change in any of them may change the result.**

"Any correct notion of the relation of environment to heredity depends on proper knowledge of how these packets of chemicals operate in producing the developed organism. This knowledge is obtained in two ways: by direct study under the microscope, and by interchanging the different packets of chemicals and noting the consequences.

"If there is clarity as to what comparison is made, there need be no ambiguity as to what is due to heredity, what to environment.

"Are the differences between men due more to heredity or to environment? If we compare our-

selves with our ancestors of 10,000 years ago, they are due mainly to environment—if it is correct, as generally admitted, that the fundamental constitution of the stock has not appreciably changed since that time. If the comparison is of ourselves with the Bushmen of South Africa, possibly the differences are mainly due to heredity. If the comparison is between the diverse races of Europe, or between the individual citizens of the United States, the answer is to be obtained only from a much greater amount of precise study, with critical statistical treatment, than has yet been made; and there is reason to think that it would signify little when reached, since it would be merely an average of a very great number of individual comparisons, many falling to one alternative, many to the other. Certainly, the answer is not to be deduced from any alleged biological principle that the characteristics of organisms are due to heredity and not to environment."

Thousand Delegates Expected to Attend Hospital Gathering—"That 1000 delegates will attend the annual convention of the Hospital Association of California in Long Beach, November 6, 7, and 8, was predicted today by Dr. F. L. Rogers," says the Long Beach Press. "Convention headquarters will be at Hotel Virginia. Details of the program are now being arranged. The association is open to all reputable hospitals in the state, whether or not they have been 'accredited' by reason of the extent of their equipment and service. William E. Musgrave and Celestine J. Sullivan, president and secretary, respectively, of the state association, reside in San Francisco, where the organization's headquarters are located.

"The convention is coming to Long Beach as a result of a suggestion made by Dr. Rogers to officials of the association during a meeting of the California Medical Association in Los Angeles last May and invitations subsequently extended by the City Council and the Chamber of Commerce."

The Doctor on the Stage — Marian P. Whitney (North American Review) emphasizes the increasing interest being manifested in the physician and his work as embodied in the drama:

"In their search after new dramatic values, many of our playwrights have turned from their long preoccupation with love, youthful or illicit, with sex in all its aspects, and have asked themselves what other motives and emotions deeply influence our lives. And they have discovered that for the average man the profession or business which he chooses becomes the dominating factor of his life, and so in reality his 'fate.' . . .

"The contemporary drama accords to the man of science and to the scholar a place which he has never before occupied, giving to him his problems, struggles, and ambitions, the center of the stage, which no other age has granted him. It is natural enough that a great number of such plays should be concerned with the man whose science brings him into the closest contact with life, that is, the physician. . . .

"Many plays (several of which are reviewed by the author) show us the physician's life, his professional success, as determined, not alone by his relations to his own patients, but to the community for whose health he is ultimately responsible, or to external forces and interests with which his work brings him into conflict. . . .

"The modern world is interested in the man of science and the scholar," concludes the author. "It is ready to enter into his joys and sorrows, his aspirations and ambitions, it respects and honors his calling and appreciates his value to the community."

Is Intelligence the Be-all and End-all?—Mr. Lewis Worthington Smith, in discussing this question in Mr. Ford's Dearborn Independent, believes that "there is a growing superstition to the effect that intelligence is the be-all and end-all of man. Our psychologists have devised tests of mental capabilities by which our children may be assigned to their several levels. . . .

"It is not going far out of the way to say that man is chiefly brains and fingers. He thinks things and his fingers turn his thoughts into act and fact. Curiously enough, the card-indexing of humanity is not dealing with us as brains and fingers. . . .

"As human beings we differ both quantitatively and qualitatively. Measurements of intelligence reveal in the gross only our **quantitative** differences. Such differences are those only that distinguish us in degree from our fellows, not in kind. They rate us in grades as the miller rates wheat. They do not separate us one group from another as the same miller separates corn and rye. No degree of excellence can change the corn to rye nor persuade the miller that it should be ground up for rye. They are eternally different things. They must grow and flourish in different ways. Woe be to the husbandman forever who scatters his corn broadcast as he scatters rye or who tries to cultivate rye in hills. . . .

"We live in a man-made world. It was and is not not so with the savage. He takes the world that nature gives him. Through untold thousands of years we have been transforming the crude material of existence with which our early human ancestors made themselves more or less content. There are those who feel that it is the part of wisdom to accept any contribution to our common life that anyone may make. The idea is alluring, but it is less sensible than would be the suggestion to a cook getting an apple pie ready for the oven that, since grapes are a desirable fruit, as are also peaches and gooseberries, she adds indiscriminately to the filling such portions of each as she may have at hand. The making of a world in which to live, a world offering possibilities of happiness suited to our individual needs, is a matter somewhat more serious than the making of any kind of pie whatever. **It is no more advisable to bake pie in adaptation to the tastes of those who are to eat it than it is to shape a social order in agreement with the tastes of those who have made the world where it exists their home. . . .**

"As Christopher Pearse Cranch put the matter:

'Thought is deeper than all speech,
Feeling deeper than all thought;
Souls to souls can never teach
What unto themselves was taught.'"

The Renewal of Youth and After—Under this title, The Forum publishes a second article by L. Adams Beck about the new youth. These quotations will help you decide whether or not you wish to read these new health educational documents. Many of your patients are reading them.—

The possibilities held out by Dr. Voronoff are so dazzling, the road of attainment so simple, that it may well appear necessary that the world should hoard its race of chimpanzees as something more to be desired than much fine gold. **No wonder that Dr. Voronoff's rooms exult in "old masters, wonderful rugs, and exquisite furniture." No wonder that the aged voluptuaries of the world see the day-star of hope dawning in midnight skies. What a world might this be, could the period of its pleasures be doubled, if not prolonged indefinitely!**

The operation of Voronoff will, according to his statements, convey character. It will restore force and energy, but what force? That of the ape? A pretty possibility, truly! If with physical energy are grafted also lust and cunning, released from human self-control, the worst nightmares of modern literature may be realized and a race produced, semi-immortal and lower in instinct and passion than the Neanderthal man, who had at all events climbed above the common progenitor of ape and man. Man has struggled up through many and terrible obstacles. We may yet witness a self-chosen descent.

California Medical Association

GRANVILLE MacGOWAN, M. D., Los Angeles..President
EDWARD N. EWER, M. D., Oakland.....President-elect
EMMA W. POPE, M. D., San Francisco.....Secretary

Council of California Medical Association — The autumn meeting of the Council of the California Medical Association will be held at Long Beach on November 8, 1924, at the Hotel Virginia. This hotel is also headquarters of the Hospital Conference, to be held November 6, 7, and 8. A special rate of $8 a day, American plan, has been arranged for the Hospital Conference. Make your reservations direct with the hotel as early as possible.

Any member of the organization who has any matter that he wishes considered by the council at this meeting is invited to make his plans to be present or to submit his proposition in writing in advance of this date.

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary)—The September meeting of the Alameda County Medical Association was devoted to Pediatrics, and the association is indebted to C. D. Sweet for the following program: "Sarcoma of the Chest in an Infant," (a) clinical report by Clifford Sweet, (b) radiographic and treatment report by William Sargent and R. G. Van Nuys; "The Nervous Child," by Langley Porter; and "Diphtheria," by E. C. Fleischner. All who failed to attend this meeting missed a treat. Langley Porter and E. C. Fleischner came by invitation, and gave the best out of their large experience. The meeting was well attended, and after adjournment a full hour was spent around the refreshment table, devoted to sociability and a continued informal discussion of the scientific program of the evening.

At the regular meeting of the staff of Fabiola Hospital, held August 26, the following subjects were discussed: "Case of Hemorrhage into Kidney and Pleura," by Guy Liliencrantz. "Infantile Uterus With Multiple Fibroids," by E. G. Simon. "Unusual Case of Bone in Cervix," "Healed Electrical Burn," by Ergo Majors. "Demonstration of New Obstetrical Forceps," by E. N. Ewer. "The Post-encephalitic Syndrome," by C. W. Mack.

The staff dinner given as a welcome to the incoming internes of the Alameda County Hospital was a delightful function. Q. O. Gilbert presided as toastmaster. He called upon each incoming interne to introduce himself and give his credentials, which was done in a most happy manner. W. H. Strietmann spoke on the "Interne Year," bringing out the fact that the interne fresh from college could give to the members of the staff many of the newer and later things in medicine, as well as that the members of the staff could give them of their experience; in fact, that each could learn from the other. He urged internes to be kindly and courteous in the treatment of the patients in this institution, to talk to them and treat them as they would were they private patients; to be ever careful of their speech, especially avoiding criticism of their colleagues; to conduct themselves so as to inspire their patients with confidence, not only in themselves, but in medicine as well."

Fletcher Taylor spoke on the "Give and Take of the Interne" most entertainingly, relating anecdotes, which were highly appreciated.

R. S. Smylie's subject was "The Call of the Doctor," which he presented in a masterly fashion.

A. M. Meads took for his subject "Urology as an Indoor Sport." While the doctor presented his subject in a humorous manner, he thoroughly impressed his hearers with its place and importance in medicine.

Doctor Aurelia Rhinehardt, member of the Institutions Commission, when called upon responded in her usual happy vein, saying she did not realize that the doctors could get so much fun out of so serious a subject as medicine. She envied them for the good they do for humanity.

R. T. Legge took his audience with him on his recent trip abroad, introducing them to the men he met, and telling them of the things that were medically interesting.

Mr. J. H. King spoke for the Institutions Commission, briefly stating what the commission had done and what they hoped to do.

The Merritt Hospital staff on Monday, September 1, considered "Occupational Dermatosis," by Harry E. Alderson, and "Renal and Ureteral Calculi," by Spence DePuy.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—The regular meeting of the Fresno County Medical Society was held on September 2 at the nurses' home of the General Hospital, with the following members present: Aller, Avery, Barrett, Brown, Couey, Cross, Drake, Diederich, Dearborn, Ehlers, Ellsworth, Hare, Jamgotchian, James, Jorgensen, Kjaerbye, G. L. Long, S. M. Long, Miller, Montgomery, Mitchell, Morgan, Milholland, Newton, Nedry, Schottstaedt, Sheldon, Staniford, Scarboro, Tillman, Tobin, Tupper, Webster, Wiese, and Willson.

Max Rothschild of San Francisco gave a very interesting and instructive paper on "The Modern Treatment of Pulmonary Tuberculosis," with demonstration by lantern slides. He discussed the treatment as regards the two types—exudative and productive. For the former he strongly advocated partial antigens in very small amounts intra-cutaneously, waiting until all reactions are gone, using no tuberculin or heliotherapy. Gradually, the exudative type becomes the productive type, when tuberculin and heliotherapy may be used. The non-specific therapy, artificial pneumothorax, should be used in selected cases, but only pressure equal to atmospheric. The lantern slides shown illustrated the marvelous results obtained in advanced cases with cavities.

The applications for membership of C. B. Cowan of Selma, and G. K. Nider of Fresno were read and ordered placed in the proper channels for action.

Dr. Max Rothschild was the guest of the staff of the General Hospital at luncheon on September 2, where he gave an informal talk on "Tuberculous Glands in Children."

SAN DIEGO COUNTY

San Diego County Notes (by Robert Pollock, M. D.)—The Medical Society resumed its fall and winter sessions with a dinner in the Pompeiian room of the San Diego Hotel, Tuesday, September 9. After dinner the evening was given up to music and sociability, and a free-for-all discussion of several matters of vital interest to the medical profession, chief among which were the handling of the public health in the outlying districts of the county, and the question of affiliating all public health efforts of municipalities and country districts under one head. The question whether the San Diego County General Hospital and the Outdoor Clinic were being abused by people who could well afford to pay for services and, therefore, not entitled to free treatment was given a liberal discussion. Both of these public welfare movements are served by the County Medical Society, and through their services it was shown, in discussion, that they contributed twice the amount of money annually as was drawn from the taxpayers for the support of this service. Computation was based upon the minimum charge for medical services, as outlined in the fee bill of the medical society. It

was the opinion of the meeting, as expressed by vote, that, under such existing circumstances, it was inappropriate to endorse the practice of the supervisors in accepting fees from any patients in part payment of their services rendered. While the physicians are perfectly willing to donate their services to the worthy poor, they feel that none but the members of that class should be admitted to either the clinic or the hospital, and a sufficient force of trained social service workers should be employed by the supervisors to guarantee this to the public. The need of more hospital beds for the middle class was made evident by this discussion.

On Monday, September 15, the physicians of the county and their ladies were invited to a pre-view of the new Scripps Memorial Hospital in La Jolla. This building and equipment were found to exceed even the generous praise given it in advance, and has taken a proud place among the medical institutions of the Southland.

The combined staffs of the San Diego County General Hospital and the Mercy Hospital convened in the nurses' home of the former institution on Tuesday, September 16.

SAN FRANCISCO COUNTY

Proceedings of the San Francisco County Medical Society (reported by J. H. Woolsey, secretary)—During the month of August, 1924, the following meetings were held:

Tuesday, August 12—General Meeting: Water problems of San Francisco—M. M. O'Shaughnessy, City Engineer San Francisco. The mental symptoms of myxedema and other forms of thyroid insufficiency—T. G. Inman.

Tuesday, August 19—Section on Industrial Medicine: What is meant by a traumatic neurosis?—T. G. Inman. Value of trauma in neuroses—H. C. McClenahan. The retraumatized neurotic—W. F. Schaller. Treatment of post-traumatic neuroses—Joseph Catton.

St. Joseph's Hospital Staff Meeting—At the staff meeting of September 10, Dr. Wallace Terry spoke on the "Modern Treatment of Goiter," Dr. A. S. Musante presiding.

Doctor Terry considers that there are four general types of goiter—the epithelial, colloid, adenomatous, and adolescent. In the colloid there is an excess of iodine, and in the hyperplastic a deficiency. Infection is a factor in the latter, as well as in thyroiditis, and destruction may ensue and lead to myxedema. The most common on the Pacific Coast is the adenomatous, which springs from "rests," and here only surgery can cure. Adolescent goiter occurs in girls and boys of ten to 22 years of age, and causes mild enlargement in California, but larger ones in other places. These are cured spontaneously or with iodine. Causes are deficiency of iodine and sometimes infection. The swelling is uniform, and there is no bruit or thrill, and only slight tachycardia. The colloid type is unusual here, and iodine often cures. These cause uniform enlargement, though the right lobe is larger usually, and are smooth. Surgery is not needed, as a rule. The hyperplastic or exolphthalmic type is due to infection and probably lack of iodine. They are found everywhere, and overactivity, like that afforded this "jazzy" age, is a factor. Teeth and tonsils often supply infection. Here iodine is absent (used up). There is a high metabolic rate, enlargement, bruit of superior thyroids, thrill. The adenomatous are most common here and are irregular in shape. They may have heart and kidney changes, but no exophthalmus. Symptoms are often late (even after 14 to 15 years); in hyperplasia, early malignant type (carcinoma, sarcoma, and mixed) are not rare and can follow on adomatous.

Treatment in olden days was the use of burned sponge, which we now know is rich in iodine. Certain geographical areas, through glacial action, have been ice-washed and iodine thus removed from the soil, and the products of the latter are also deficient in iodine. Therefore, iodine should be used as prophylactic, by addition to drinking water or in some other way. For adenoma, early removal is best, and even small masses should be enucleated. X-rays are contra-indicated. For exophthalmic goiter, x-rays are also a mistake, but rational iodine therapy and surgery are best. Pre-operative preparation includes gentleness and the gaining of their confidence. Rest, ice-bag over heart and neck help to quiet. Lugol's solution m. 10 t. i. d. in chocolate malted milk is useful. In about three weeks of forced feeding, eliminating red meats, brains, liver, tea, and other stimulants, patients will improve. Operate if pulse is better. Ligate superior thyroids if radical operation is not possible. Polar ligation, including sympathetic nerve and lymphatics is better. Afterward should follow gain of weight, even twenty to thirty pounds. Nitrous oxide and oxygen is best anesthetic. Ethylene causes more bleeding and has a disagreeable odor, but may be improved. Kocher incision should follow folds of neck and go through platysma. Expose from thyroid cartilage to sternal notch. Retract muscles; seldom cut. Leave pieces near superior and inferior thyroids and a thin layer of the posterior portions, as well as the deep (pre-tracheal) fascia. In adenoma, don't remove thyroid tissue. If patient goes bad while operating, stop and apply gauze, soaked with acriflavine solution, to wound and ice over this, and put back to bed for a few days. Substernal portion can be removed with a soup spoon having a rounded bowl. Before closing, wash well with Ringer's solution. Use fine catgut to bring muscles together and suture platysma separately for a small scar. Skin clips approximate skin and can be removed in three days. Patient can go home on fourth day.

Drs. Roy Parkinson and David Stafford presented case reports of mastoiditis with meningitis and miliary tuberculosis.

At the staff meeting of October 8 Dr. R. L. Rigdow will discuss "Avoidance of Urological Pitfalls."

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by Alex C. Soper, Jr., secretary)—The Society met at the Cottage Hospital, Monday, August 18, President Robinson in the chair. Present: Eighteen members, four internes, and two guests. Minutes of previous meeting read, approved, and ordered filed.

Report of committee on an advertisement in the State Journal which was believed unethical was read. Moved that a copy be sent to the secretary of the State Association for action.

(Note—The Executive Committee of the C. M. A. has investigated the matter in question, and the advertisement has been removed, with thanks to the Santa Barbara Society for calling the matter to our attention. It is such co-operation that helps keep California and Western Medicine up to the high standard we set for it.)

Letter from the secretary of the S. B. Druggists' Association, enclosing patent medicine ad, read; also letter from the State Secretary defining the status of a local osteopath.

Harry L. Schurmeier read a paper on "Late Post-traumatic Compression of the Os Calcis."

Charles S. Stevens discussed "Post-operative Emboli."

Henry J. Profant read a paper on "Gradenigo's Syndrome."

Deaths

Adler, Albert S. Died at San Francisco, August 29, 1924, age 65. Graduate of Cooper Medical College, San Francisco, 1876, and the University of Berlin, Germany, 1879. Licensed in California, 1880. He was a member of the San Francisco County Medi-

cal Society, the California Medical Association, and a Fellow of the American Medical Association.

Barnes, Wallace Harold. Died at Bolinas, September 15, 1924, age 30. Graduate of the Jefferson Medical College of Philadelphia, 1918, and licensed in California the same year. He was formerly a member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

Bassett, Foster W. Died at Los Angeles, August 21, 1924, age 63. Graduate of Northwestern University School of Medicine, Chicago, 1889. Licensed in California in 1897. He was a member of the Los Angeles County Medical Association, the California Medical Association and the American Medical Association.

Cunnane, William B. Died at Santa Barbara, August 21, 1924, age 70. Graduate of Tulane University of Louisiana School of Medicine, New Orleans, 1881. Licensed in California in 1884. He was a member of the Santa Barbara County Medical Association, the California Medical Association, and a Fellow of the American Medical Assocition.

Fehleisen, Frederick. Died at San Francisco, August 28, 1924, age 69. Graduate of the University of Wurzburg, Germany, 1877. Licensed in California, 1895. He was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Neel, James Craig. Died at San Francisco, September 5, 1924, age 42. Graduate of the Johns Hopkins University Medical Department, Baltimore, 1910. Licensed in California in 1916. He was a member of the San Francisco County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Schulze, Otto Theodor. Died at Napa, August 19, 1924, age 43. Graduate of the University of California Medical School, San Francisco, 1907, and licensed in California the same year. He was a member of the Napa County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

New Members

Arthur C. Christensen, Ethel Fanson, Edward W. Hayes, E. J. Krahulik, B. A. McBurney, John MacLean, H. S. Portogallo, Los Angeles; Joseph J. Jelinek, Tujunga; T. H. Slaughter, Long Beach; W. L. Chilcott, San Jacinto; Edward J. Lamb, Santa Barbara; J. J. Levy, Reedley; H. M. McNeil, Big Creek; Joseph L. Kalfus, Arroyo Grande; Tholow Binkley, Sacramento; W. S. Kiskadden, El Centro.

STIMULANTS, DEPRESSANTS, HUMOR

"In answer to your letter may I say that I will be too glad to stand the expense of $10 for the cuts, as I am always proud to have any of my articles appear in our journal, which is so splendidly edited and which is a pride to medical publications."—A. G., Los Angeles.

Two Scotchmen decided to become teetotalers, but MacGregor thought it would be best if they had one bottle of whisky to put in the cupboard, in case of illness.

After three days Sandy could bear it no longer, and he said, "MacGregor, I am ill."

"Too late," said MacGregor; "I was ill all day yesterday!"

"This is what I have against our medical journal: I used to be able to read it in ten minutes and now it takes me two hours—and I have to read it, too."—V. G. V., San Francisco.

"Our journal has improved so much, month by month, that I have often felt the urge to send my humble commendation to you, as I realize your devotion to it. It has not only become better in the ordinary good qualities such a publication should possess, but especially in its editorials. These latter are more than thoughtful, in that they make the reader think also, and should receive from the profession due consideration."—A. S. M., San Francisco.

"I want to thank you for the privilege of discussing this paper and expressing myself on a subject (cholecystitis) that has come so close to my personal life."—W. H. W., Long Beach.

Dear Doctor: I got your letter about what I owe you. Now be pachunt. I ain't forget you. Pleez wait. When sum. fools pay me I pay you. If this wuz judgement day and you wuz no more prepared to meet your Master as I am to meet your account, you sure would have to go to hel. Trusting you will do this.

"Thank you very much for the honor and courtesy shown me by this request for discussion of Doctor Blank's paper."—A. R., San Francisco.

It was late at night. No one seemed to be about, and the poor woman, making her first ocean trip, was very, very sick. She thought that if she could only get up to the deck for a few minutes, the fresh air would help her recover. So, quite scantily clad, she made her way out of her room and started to crawl up the steps. She was entirely too sick to walk. Half way up the stairs she met an equally seasick man, coming down. She gave a feeble, very feeble, scream of embarrassment.

"Do not worry, my dear madam," groaned the man, very, very feebly, too. "I shall never live to tell about it."

Nevada State Medical Association

HORACE J. BROWN, M. D., Reno.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

We regret that the report of the proceedings of the Annual Session of the Nevada Medical Association, held at Reno last month, could not reach us in time for this issue. But it will be published in full in November.

The program as published in the September number of our journal was carried out, and the papers presented will appear from time to time in the pages of California and Western Medicine, as the official organ of the Nevada Association.

California men who were guests at the meeting report that it was the usual success.

All social life is ritualistic. You cannot walk along the street or enter a house without observing a ritual which you could not violate without an overwhelming sense of guilt. A child has not yet grown up to the sense of ritual. Imagine yourself doing in public the things a child does! Human society, as much that of the savage as of the civilized, seems, in practice, if not in theory, impossible without ritual, however we may have simplified it, or conventionalized it, from its primitively more elaborate and sacredly significant forms. The ancient Chinese, who had so profound a feeling for the essential things of life, based morals on ceremony and music. It is impossible to construct even Utopia without ritual, however novel a ritual it may be, and even Thelema was an abbey. It is not only society; it is all life, that is full of ritual, ancient and fantastic, seemingly absurd and unnatural ritual, that is indeed moulded into the very shape of life. Where can we find such wildly and diversely extravagant embodiments of ritual as in the greenhouses of Kew or the cages of the zoo? For Nature is herself the maker of ritual. We are all ritualistic, carrying out rites so widely diverse that we cannot enter into the spirit of one another's ritual. Yet, whether devised by Nature's direct mechanistic action or through the human brain, it is all the manifestation of an underlying vital meaning.—Havelock Ellis (The Forum).

"JUST BE THE BEST"

If you can't be a bush, be a bit of the grass,
Be a scrub in the valley—but be
The best little scrub at the side of the rill;
Be a bush if you can't be a tree.
If you can't be a bush, be a bit of the grass,
Some highway to happier make;
If you can't be a muskie, then just be a bass—
But the liveliest bass in the lake!
We can't all be captains, we've got to be crew,
There's something for all of us here;
There's big work to do, and there's lesser to do,
And the task we must do is the near.
If you can't be a highway, then just be a trail,
If you can't be the sun, be a star.
It isn't by size that you win or you fail,
Be the best of whatever you are."

Utah State Medical Association

GRADUATE INSTRUCTION

The outstanding feature of the month of August locally was the course in Graduate Instruction, held in Salt Lake under the auspices of the State Medical Association, August 25 to 30, inclusive. The complete program is given below.

The committee on this feature of the medical year were fortunate in obtaining Dr. Arthur Dunn of Omaha and Dr. Clifford Grulee of Chicago as speakers, and Drs. T. A. Flood and Shakell of Salt Lake City for laboratory demonstration for this week.

It is gratifying to meet and listen to such men, gratifying to note the workmanlike, common-sense manner in which they approach their topics, and the consideration of the conditions involved. The time has certainly come for medical progress to throw overboard the Jonah of semi-mystical atmosphere which has for so long, in a measure, camouflaged, at least upon occasion, a regrettable ignorance. It takes a bigger man to say "I don't know" than to pass the buck by the use of a superior demeanor and the use of polysyllabic but largely meaningless terms.

Two ways the man in practice has to learn outside bitter experience: he may read, and he may be taught. To be taught he must come into contact with the teacher. To the busy man such as the average practitioner, with an average income, the expense of post-graduate work is not always a thing easily met, or the time is not always easily found to escape from the daily press of routine duty. It is to such men that a course of post-graduate instruction such as has recently been supplied by the Utah Association is of the greatest service.

It is contemplated to extend and broaden this service from year to year. Let us hope that those of the fraternity who need it will not fail to avail themselves of it. Surely we need it—and we may have it, if we will give it our support.

Program for Week of Graduate Instruction

(R. O. Porter, H. L. Marshall, W. R. Calderwood, Committee.)

Monday, August 25

9 to 10:25—Dr. Dunn: Cardiac Conditions, Valvular and Muscular, Including Hypertension.
10:35 to 12—Dr. Grulee: Feeding and Care of the New-Born.
(Salt Lake County Hospital.)
2 to 3:30—Laboratory Diagnosis.
(University of Utah Medical School.)

Tuesday, August 26

9 to 10:25—Dr. Dunn: Cardiac Conditions, Valvular and Muscular, Including Hypertension.
10:35 to 12—Dr. Grulee: Abnormal Conditions of the New-Born.
(Holy Cross Hospital.)
2 to 3:30—Laboratory Diagnosis.
(University of Utah Medical School.)

Wednesday, August 27

9 to 10:25—Dr. Dunn: Diabetes.
10:35 to 12—Dr. Grulee: Feeding of the Normal Child Under Two Years of Age.
(L. D. S. Hospital.)
2 to 3:30—Laboratory Diagnosis.
(University of Utah Medical School.)

Thursday, August 28

9 to 10:25—Dr. Dunn: Focal Infection Problems.
10:35 to 12—Dr. Grulee: Constipation and Diarrhea of Infants and Children.
(St. Mark's Hospital.)
2 to 3:30—Laboratory Diagnosis.
(University of Utah Medical School.)

Friday, August 29

9 to 10:25—Dr. Dunn: Gastro-intestinal Diseases.
10:35 to 12—Dr. Grulee: Differential Diagnosis of Conditions in Infancy.
(Salt Lake County Hospital.)
2 to 3:30—Laboratory Diagnosis.
(University of Utah Medical School.)

Saturday, August 30

9 to 10:25—Dr. Dunn: Gastro-intestinal Diseases.
10:35 to 12—Dr. Grulee: Nutrition of Older Children and Disturbances of Internal Secretions.
(Holy Cross Hospital.)

CARRY ON

The enemy stages an offensive, and takes his toll of the forces we have to stand before him and hold the line. Night broods over the trenches—a shell bursts and men perish. And their fellows write above them, "Died in the face of the enemy." And having written they strengthen themselves by the example of the fallen and—carry on.

By five names in the last few weeks the ranks of the profession in Utah have been thinned. Five men no longer answer "Here" to the call to duty. In the face of the enemy, engaged in the performance of their service to their fellows, they have gone forth into the unknown.

They are mourned. They are not forgotten. They are carried on the roster as honored by service performed. They are missed—by their medical associates, their loved ones, their friends. As the highest honor to them, let us who remain, strengthen our hearts by their example, take up the torch of service as it falls from their now chill fingers and—steadfastly—carry on.

ERNEST L. VAN COTT, M. D.
1873-1924

Dr. Ernest Van Cott, of 868 Second avenue, Salt Lake City, dropped dead in Wellsville canyon, fifteen miles from Logan, when he alighted from his automobile to fill the radiator with water. An acute attack of heart disease was the cause of death.

With Dr. and Mrs. T. J. Howells, 374 North Main street, Dr. and Mrs. Van Cott were returning to Salt Lake after touring Yellowstone Park and the Jackson Hole country.

Dr. Van Cott was a native of Salt Lake. He graduated from the University of Utah in the class of 1897 and received his M. D. degree from the Rush Medical College of Chicago. He was appointed local surgeon of the Oregon Short Line Railroad in 1904.

H. S. PYNE, M. D.
1862-1924

Dr. Herbert S. Pyne, 62, prominent in medical, church and political circles, died August 14, 1924, from pneumonia after an illness of four days.

Dr. Pyne was a member of the American Medical Association, the American Medical Volunteer Relief Corps, and the Utah Pharmaceutical Association, the Utah State Medical Association, and the Utah County Medical Association. For four years he was Utah county physician. From 1895 to 1901 he was steward of the State Mental Hospital. He took up private practice here in 1908.

Minutes of the Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—The regu-

lar meeting of the Salt Lake County Medical Society was held at the Latter Day Saints Hospital, Salt Lake City, Utah, Monday, September 8, 1924. The meeting was called to order at 8:05 p. m. by President A. A. Kerr. Forty-one (41) members and nine (9) visitors being present.

The minutes of the last regular meeting, which was held June 9, 1924, and of the special Aschoff meeting held June 25, 1924, were read and accepted without alteration.

Scientific program was put on by the members of the L. D. S. Hospital staff. John R. Llewellyn presented a case of infantile paralysis and went into detail as to treatment. The case was discussed by S. C. Baldwin, who emphasized the necessity of preventing deformities. H. C. Holbrook also discussed the case.

G. G. Richards presented a case of endarteritis obliterans or thromboangiitis obliterans and discussed the treatment. He also presented a very interesting case of pulmonary fibrosis with possible adhesive pericarditis.

F. F. Hatch presented a case of diverticulum of the bladder and acute pyelonephritis relieved to a large extent by operation.

L. E. Viko showed a child of ten years with partial paralysis of the right arm, leg and face, who had had epileptiform convulsions since the age of 5, following gunshot wound of the head. The case was discussed by G. W. Middleton and A. A. Kerr.

Burtis F. Robbins showed a case of possible sarcoma of the jaw, also a case of carcinoma of the nose on which three plastic operations had been done, also a case of tumor of the lower lip.

T. F. H. Morton presented a case of possible lead poisoning.

Burtis F. Robbins gave a talk on colonic ether anesthesia.

The applications of M. Skolfield and George E. McBride were voted upon and they were unanimously elected to membership. Sixteen members voted. The applications of G. H. Pace and Edwin R. Murphy were read and referred to the board of censors.

Upon the absence of D. L. Barnard, chairman of Necrology Committee, James P. Kerby read the resolutions upon the death of John F. Critchlow and Ernest Van Cott.

Delicious refreshments were served by the nurses of the L. D. S. Hospital and the meeting was adjourned at 10:05 p. m.

Holy Cross Hospital Clinical Association—Monday, September 15, marked the resumption of meetings by the Holy Cross Hospital Clinical Association.

Recently some additions have been made to the Holy Cross staff. The following men have been appointed: L. N. Ossman, orthopedic surgery; T. William Stevenson, surgery; Ralph Pendleton, surgery; M. M. Neilson, surgery; W. C. Cheney, pediatrics; Wilford W. Barber, pediatrics.

The program consisted in a report of Convention of American College of Surgeons held at Pocatello, by A. A. Kerr, M. D., and "Dislocations of the Spine," by A. J. Hosmer. General discussion followed.

A Correction—In my recent article, "Hay Fever in the Sonoran Belt of the Intermountain District," which was published in the July number of California and Western Medicine, an error occurs which, while not altering my conclusions, should be corrected for the sake of accuracy. The statement "about June 15, rabbit brush (panseria deltoidea), a composita, begins to pollinate" is correct, but continued observation shows that only a few plants in warm, sheltered places bloom that early. The great majority do not come into full bloom until about August 1. However, as practically none of our patients date their onset from this time and as very little of the rabbit brush pollen appears on atmospheric plates and, finally, as there are very few markedly positive cutaneous reactions from its extract, I still believe rabbit brush to be of secondary importance as a cause of our local type of hay fever.—H. J. Templeton, M. D., Hiawatha, Utah.

Medical Economics and Public Health

Dilettantism in Radiology—Under this title the London Lancet of July 19, 1924, carries an editorial that is worthy of careful reading by all physicians.

There is more than one opinion among physicians, and there are many opinions among others, as to the place practical radiology should have in the scheme of things medical. If we are not careful about getting together as physicians and settling permanently what should be a problem in medical economics, we are likely to have the matter settled for us by politics. Several attempts have been made to pass legislation of one kind or another by the California legislature. Some quite unsatisfactory bills have come dangerously near becoming law. The legislature meets again this winter, and it would be safe to bet that attempts will be made to pass more than one x-ray bill.

Alleged Special Courses for Doctors—Several members have sent us letters from itinerant lecturers who are out to educate—for a price—physicians about this or that. We have commented upon this movement from time to time. There is not much more to say.

In most instances the purpose behind the advertising experts is selfish and mercenary, and the things they often have to sell are useless, freakish or otherwise undesirable. There are plenty of opportunities for special work for those who want it, obtainable through ethical and approved channels.

Is This True?—In his address, the chairman of the Section on Pediatrics of the American Medical Association, in discussing the early days of pediatrics as a specialty, says: "At that time, the greatest field of preventive medicine, the first year of life, was almost entirely neglected. The general practitioner was content to leave the care and feeding of the infant to the nurse, to the mother, or to the directions on the bottle or carton; he concerned himself with the infant only when it became ill. The high death rate among infants was considered a weeding out of the unfit, and only when national fervor stirred the profession did we begin to take an interest in the normal child."

Medical Work of the United States Steel Corporation—Modern trends in personal and public health advancement are indicated to a remarkable extent by the development of medical departments in great corporations.

The United States Steel Corporation is one of the most important of these. Their expenditures on medical and welfare work for their employes for ten years, ending December 31, 1923, was nearly $127,000,000. These figures do not include either the pension roll of over $9,000,000, nor the administration expenditures for health and welfare of one-half million. This great corporation employs on salary 344 physicians, 235 nurses, 71 visiting nurses, 112 orderlies and other attendants, 44 sanitary inspectors, 203 teachers and instructors, including teachers and instructors in health work, and has 863 employes in training in emergency work. They operate 13 base hospitals, 389 emergency stations, and 66 rescue and first-aid stations. They spend some $3,000,000 a year on sanitation, over $1,000,000 on accident prevention, and nearly $4,000,000 on relief for injured men and their families. Their special aim seems to be, good medical and health service. Their medical work is conducted through a central medical department with

subsidiary departments for the various companies. One of the most important features of their work is the building, equipment, and maintenance (including skilled supervision) of 175 playgrounds for children, with an approximate attendance during the summer of 25,000 children per day.

This is only one of the thousands of corporations now expanding and developing medical departments as part of their organization. It is one of the largest, to be sure, but they are all organized along the same economic lines that characterize business enterprises in other phases. There are, of course, undesirable features connected with many of these developments, but if one must take a choice between that kind of wholesale medical work, and that turned out by government bureaus, we feel that the corporations are to be preferred.

Corporation Medicine—The medical department of the Endicott-Johnson Corporation seems to be as complete a department as that of sales, executive, production, or what not.

They employ some 16,000 shoemakers. Medical service is complete for home, office, and hospital. Workers are given periodic medical examinations, beginning with a pre-employment one. The medical department handled 90,000 calls during last year. There were 5000 ambulance services. All sorts of special clinics, including dental work, baby clinics, and all other special services are carried forward. The corporation's doctors made 75,000, and nurses 15,000 home visits alone during the year. The cost of the medical department was over $400,000 for the year.

Hundreds—yes, thousands—of other corporations are progressing as actively with the development of medical departments as they are with any of their other activities. There are good points in many of these services, and there are bad ones in most of them. Nevertheless, they are here, and here to stay and to grow. They may be improved, but they cannot be destroyed even if anyone wished to do so. Whatever else this form of practice means, it certainly is better than turning all health work over to government bureaus.

New Pacific Coast Representative for Laboratory Products Company—Mr. H. Mabry Swartz has been appointed Pacific Coast representative for the Laboratory Products Company of Cleveland, whose product, S. M. A., is well known to our readers through the advertising pages of California and Western Medicine. The publicity work of the S. M. A. is done through personal letters to physicians and through advertising only in the highest class of medical journals. These people include California and Western Medicine among the seven medical journals they advertise in, and their attractive copy will be found on alternate months on the inside back cover. Discriminating advertisers deserve the cooperation of physicians, who are the owners and readers of their medical journals.

Another Digitalis Preparation—We are glad to call the attention of our readers to a new page advertisement by the Hoffmann-La Roche Chemical Works of their preparation of digitalis, Digalen. It argues well for the cause of better medicine when these great pharmaceutical houses and chemical works are vying with each other in attempts to bring out all that is possible of the virtues of digitalis and to market their preparations in accordance with their distinctive methods. We are glad to welcome this new firm to our advertising pages in copy accepted by the American Medical Association, and invite the attention of our members to the claims they make for their products.

Wilson Laboratories Have New Representative for Pacific Coast—Morgan and Sampson, 501 Howard street, San Francisco, are now Pacific Coast representatives of the Wilson laboratories, and announce that complete stocks are now carried at both San Francisco and Los Angeles for the convenience of physicians and hospitals. Further information regarding the products of this company are always to be found in our advertising pages.

As Others See Us—S. De Witt Clough presented some data of interest to physicians in a paper before the recent meeting of the American Drug Manufacturers' Association.

A confidential questionnaire was sent to 5000 doctors in every state in the union, as equally divided as possible, among the small towns and the large towns by S. De Witt Clough. "About 788 replies are received up to the time this paper was written. The results are wonderfully interesting. Never, as far as I know, has such an extensive survey been made to the medical profession on the subject of advertising. The results are astonishing, in that they point the way to saving even more than the 10 per cent previously mentioned."

The Questionnaire

1. What method of advertising to physicians do you conconsider most effective?
   - A.—Letters.
     1. Filled in?
     2. One or two cent stamp?
   - B.—House organs?
     1. How many times a year?
   - C.—Samples?
     1. How many times a year?
   - D.—Medical journals?
   - E.—Exhibits at medical meetings?
   - F.—Booklets: what size?
   - G.—Post cards?

   Additional remarks. What form of pharmaceutical promotion appeals to you most?
2. Do you interview detail men and is their work effective in your opinion?
3. Do you think the American Drug Manufacturers' Association and allied associations should interest themselves in a campaign of publicity to create a better understanding, greater good-will and more complete confidence on the part of the public toward the regular medical profession?
4. Would such a campaign be effective, in your opinion, in checking the tendency of the public to drift to the cults and directing the attention of the laity to the physician and his accomplishments?

"Four hundred and eleven replies were received from small towns, and 377 from the larger cities. The votes for the various forms of promotion are most interesting. Samples received the largest number of votes—576, only sixty-two doctors voting against samples. The comments on the use of samples were very illuminating. A large number of doctors stated that the samples they received were too small to be of any practical value.

"The method which received the next largest number of votes was medical journals; 499 doctors voted for this method of promotion, 57 doctors, 'No.' Contrary to the general belief, only a very few doctors stated that they did not read the advertising in medical journals. Seventy doctors specifically stated that they considered this the best method of pharmaceutical promotion. Some few doctors specified the journals they preferred, and some others stated that they preferred ads giving a brief description, clinical reports, and practical data. It is evident, from the large number of replies on this subject, that the doctors **do** read their medical journals and are **influenced by the advertising pages.** Ninety per cent of the pharmaceutical firms returned the questionnaire, stating they used medical journals, not particularly for the direct results obtained, but for the prestige, good-will, and insurance value of this advertising. In introducing new products, as well as keeping old products before the profession, medical

journal advertising is, without a doubt, an effective, important, and necessary form of promotion.

"576 doctors voted for and 62 voted against samples.

"499 doctors voted for and 57 doctors voted against medical journal advertising.

"476 doctors voted for and 54 voted against exhibits.

"123 doctors voted for and 270 voted against postcards.

"317 voted for and 127 doctors voted against letters.

"302 voted for 2-cent, and 15 doctors voted for 1-cent stamp advertising.

"631 doctors said they interviewed detail men, and 110 said they did not see detail men.

"It is very plain that the doctor is flooded with advertising and promotional matter. He receives from ten to twenty communications a day, all enclosing literature. Even if he is interested, he hasn't the time to peruse, much less study this mass of printed matter, which comes to him unsolicited. We must get the facts over to him quickly and clearly, in such attractive form as to arrest and hold his attention, if for but the brief space of two or three minutes."

"A 'professor' from Illinois has been getting $2 per treatment from Indiana patients for the treatment of various ailments, and in the court trial, where the 'professor' attempted to defend himself for practicing medicine without a license, testimony showed that, for the most part, the treatment consisted of a few gesticulations with the hands and the recitation of a verse of Scripture," says the Indiana Medical Journal editorially. "Just why the 'professor' did not employ absent treatment and save his carfare into Indiana was not brought out in the trial. As yet we have not learned of the verdict rendered by the jury, but we are inclined to think that the 'professor' is no more guilty than a Christian Scientist, for the Christian Scientists are quite willing to let a child suffer from diphtheria and die with no other attention than that ordinarily given by the true disciple of Mrs. Eddy, who is quite content to depend upon a few well chosen passages in 'Science of Health and Key to the Scriptures' to destroy diphtheria germs and save a suffocating child or cure ingrowing toe-nail, barber's itch, or green-apple colic. On the whole, it is a hard thing to draw the line on violators of the medical law when some are punished and other equally or more guilty go free. We think that the Board of Medical Registration, and prosecutors wherever they may be, should impress upon courts, juries, and the people at large, that it is perfectly proper to permit anyone who holds himself out to treat diseases to employ any form of treatment that in his judgment seems best, but before doing so he shall comply with certain rational educational requirements, and those requirements of necessity must cover the fundamentals of medicine, including anatomy, physiology, and pathology."

"Preventive Medicine Is of Ancient Standing," says Peter MacDonald, M. D. (British Medical Journal). "In the Mosaic laws there are many sanitary measures, and, while some of them are concerned with various incantations and sacrifices, some are in accord with modern ideas; and in the Middle Ages most European countries had laws dealing with sanitation, adulteration of food, etc. The punishment seems to have best fitted the crime in Germany, where there is an account of an adulterator of wines being condemned to drink six quarts of his own wine, from which he died. Nevertheless, in ancient times up to and through the dark ages, preventive medicine consisted mainly of priestly incantations and laying on of hands, and real effective prevention is a growth of the past fifty years or so."

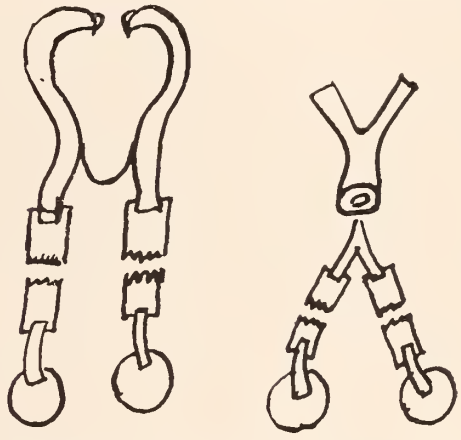
Clinical Notes and Suggestions

A PRACTICAL ARRANGEMENT OF THE STETHOSCOPE OR PHONENDOSCOPE FOR THE EXAMINATION OF THE HEART SOUNDS, MURMURS, AND THE HEART IN GENERAL

By Samuel Floersheim, M. D., Los Angeles

In my routine gastro-intestinal examinations, I am in the habit of examining the chests of all patients. At times it had been difficult for me to discern which was the first or the second sound of the heart, or whether there was a systolic or a pre-systolic murmur present.

In my effort to differentiate, I used two phonendoscopes, closing up one ear-piece of each instrument with vaseline, the other open end of each instrument in each ear. It was somewhat crude, awkward, and difficult to get clear definition. It then occurred to me that one could connect the two phonendoscopic or bell ends to one set of ear-pieces. After doing so



I found that the sounds of the heart, together with the murmurs when present, were clear and exceedingly easy of interpretation and differentiation.

It is difficult, at times, for seasoned practitioners to differentiate the heart sounds, murmurs, and other adventitious sounds, and often exciting and heated discussions occur. How much more difficult is it for the student?

I believe, should one construct or rearrange either the bell stethoscope or phonendoscope as per illustration, teaching, interpretation, differentiation and clear definition of the heart sounds, normal and pathological, would be much easier, quicker, and better understood.

I wish to take no priority for this arrangement, as I have not perused the literature. I have never seen nor heard of this arrangement being used. I know that many years ago in the post-graduate medical institutions in New York I saw a single large phonendoscopic end attached to from two to fifteen or more ear extensions. This, of course, is a different arrangement and enables more than one person to listen to the heart or other sounds at the same time; but the arrangement that is depicted in this letter is a reduplication of the phonendoscopic end. A multiplication of the ear-ends could also be assembled, should more than one person wish to listen in.

1015 Story Building.

One out of every 123 persons in the United States is confined in an institution supported by the state because he is either mentally defective, dependent, criminal, or delinquent.—Hygeia.

BOOK REVIEWS

The Internal Secretions. By Arthur Weil. Translated by Jacob Gutman. 3rd ed. 287 pages. Illustrated. New York: Macmillan Co. 1924.

Weil, a physiologist, has approached the presentation of endocrinology from a somewhat different angle than the majority of text-books on the subject. Instead of considering the various ductless glands separately, describing their functions and the clinical syndromes that are the result of abnormal function, the author has attempted an airplane view over the field, in an effort to correlate the various glands in a unified manner with reference to particular body functions. Some of the chapter headings will illustrate his conception: "The Circulation of the Blood," "Respiration and Voice Production," "Metabolism," "Growth and Bodily Form," "Reproduction," "The Sexual Impulse," "The Mind and the Internal Secretions," "The Chemistry of the Secretions," etc.

The first edition was published toward the close of 1920. That a third edition appears so soon indicates a certain amount of popularity, which is further attested by translations into Spanish, Russian, Japanese, and now into English. The translator deserves credit. He has avoided a literal clumsy rendition from German to English, and has produced a version gracefully phrased and pleasant to read.

No bibliography is included, which is a wise decision; it would either suffer from incompleteness or else tremendously enlarge the book and merely duplicate what has already been done exhaustively in the works of Biedl and Barker, one of which has 500 pages, and the other 700 pages of references.

The third German edition (of which this is a translation) appeared in January, 1923. Consequently, very important researches, such as insulin, Evans' and Smith's work on the hormones of the anterior lobe of the hypophysis, and Allen's and Doisy's work on the ovarian hormone are not included.

This book can be genuinely commended for perusal by medical students and physicians, especially if it be understood that it is not a short cut to diagnosis and treatment. It is a welcome exception to some of the fantastic endocrine twaddle that has appeared in recent years. H. L.

The Human Testis. By Max Thorek. 548 pages. Illustrated. Philadelphia and London: J. B. Lippincott Co. 1924.

This book is certainly worth while reading, and will be welcomed and studied by many surgeons. It has the merit of being the only book written in any language containing all the information about the human testicle a surgeon could look for. Therein we have the organ and its functions in normal condition, its pathology from all angles, and the therapy, as the author in his vast experience sees it. One would be tempted to say, Nothing was forgotten. While the book could not enter into the medical treatment of the tubercular nor the syphilitic, tuberculosis of the testicle is well described, and its surgical treatment very well gone into.

The author justly emphasizes the frequency of syphilis of the testicle, and syphilologists will bear him witness how many a man's testis can be saved from the surgeon's knife by proper antiluetic treatment. The book contains 548 pages, is bulky enough to scare off the occasional reader, but it is written most interestingly, and we could hardly suggest having any part eliminated, not even the very interesting historical data, which may not be essential from a practical standpoint.

Thorek deserves especial credit for his extremely interesting and costly animal experiment. To castrate six monkeys at the same time would be a millionaire's pastime were it not that some of the glands could be used for the benefit of some deficient human being, but we read that the glands were frequently transplanted again into the monkeys.

Thorek's personal observations are thorough and well reported, a shining example being the study of a colored man who suffered a degeneration of both of his testicles after mumps. His studies on ectopic testicles are very good. Most of his observations, reinforced by the thorough study of the histological changes, contribute considerably to the better understanding of the many and distressing dystrophic conditions.

The conclusion that blood relationship is most important for the transplantation is not new, and is, as we would say, "granted," but the author impresses us with the extreme importance of the choice of the site and the technic. So far his technic is surely the best and gives the best results. While Thorek is rather conservative and modest in his claims, he is also very enthusiastic, and one must believe that we are at the beginning of great things.

The publishers deserve credit for the construction of the book and the reproduction of the beautiful illustrations. The experienced surgeon may find that some of the illustrations of the technical part of various operations are somewhat elementary, but minute information and instruction may be welcomed by many. V. G. V.

BOOKS RECEIVED

Monographs on Experimental Biology; Chemical Dynamics of Life Phenomena. By Prof. Otto Meyerhof, Kiel. Philadelphia and London: J. B. Lippincott Company.

Race Hygiene and Heredity. By Hermann W. Siemens, M. D.; Translated and Edited by Lewellyn F. Barker, M. D. Illustrated. D. Appleton & Company, New York, London, 1924.

A Practical Medical Dictionary. By Thomas Lathrop Stedman, M. D., Editor of the "Twentieth Century Practice of Medicine" and of the "Reference Handbook of the Medical Sciences." Eighth, Revised Edition. Illustrated. New York: William Wood & Company, 1924.

Principles and Practice of Obstetrics. By Joseph B. DeLee, A. M., M. D., Professor of Obstetrics at the Northwestern Medical School. Fourth Edition, Thoroughly Revised. Large octavo of 1123 pages, with 923 illustrations, 201 of them in colors. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $12 net.

Medical Gynecology. By S. Wyllis Bandler, M. D., Professor of Gynecology, New York Post-Graduate Medical School and Hospital. Fourth Edition, Thoroughly Revised. Octavo of 930 pages, with 157 original illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $8 net.

The Test Is Diagnosis—No man is competent to assume the responsibilities of a healer of any kind until he is well grounded in all the fundamental scientific knowledge about the human body. Until he is so trained his practice is a constant menace to the public health. **If he agrees to treat but a limited class of diseases, or to confine his activities to but one part of the body, he is still a dangerous man until he is able to distinguish the disease which he purposes to treat from all the other disease he does not purpose to treat.** Patients do not come labeled with their complaints, and the practitioner is manifestly unable to make a correct diagnosis until he has familiarized himself with the human body, the laws of its health, and the signs and symptoms of the diseases to which it is heir.—Harry E. Kelly, member of the Chicago bar.

HOSPITAL AUTHORITIES WILL SPEAK AT LONG BEACH CONVENTION, NOVEMBER 6, 7, 8

Plans for the annual convention of the hospitals of California, which will be held at Long Beach, November 6, 7, 8, are rapidly nearing completion. The tentative program of the eight meetings, which will form the major part of the three-day conference, will be found in this issue of California and Western Medicine.

Representative hospitals are co-operating in this conference and will send delegates from each of the following: Staff, nursing, all professional and technical departments, ownership, directorate and administration. Delegates from virtually every county in the state will be present to hear national authorities and prominent hospital executives, physicians, nurses, dentists and social workers discuss the various problems and phases of hospital service.

Outstanding among the features of the program will be an address by Dr. Ray Lyman Wilbur, president of Stanford University, on "Some Problems Confronting Hospitals as Agencies of Scientific Medicine"; "What Hospital Betterment Means to Community Welfare," by Dr. Malcolm T. MacEachern, director of Hospital Activities, American College of Surgeons, Chicago, and the discussion of "Problems Confronting Scientific Medicine and the Responsibility of Hospitals in Their Solution," by D. Granville MacGowan, M. D., of Los Angeles, president of the California Medical Association, and E. N. Ewer, M. D., of Oakland, president-elect of the California Medical Association.

Work of Hospitals

The League for the Conservation of Public Health, under whose auspices the hospitals of California have held conventions for the past years, believes there should be a better understanding on the part of the general public of the problems and activities of the hospital, for such an understanding will lead inevitably to better service on the part of the hospital and to an increased efficiency which will show itself in better support from the people. All meetings of the coming hospital convention, following the custom established during past conventions held by the league, are open to the public.

Many people have little knowledge of the plan of operation or of the activities of the hospital. To most people enjoying reasonably good health, the hospital is simply a place where the sick are given medical attention and charged high rates for it. The real purpose and the real service of the hospital are entirely unknown to them.

In this country the early hospitals were established largely through private philanthropy and supported by voluntary contributions. These hospitals originated in theory as places in which to care for the sick poor. All others who became ill were to be cared for in their homes. The hospital was thought of as purely a charitable institution, to which people of self-respecting independence did not go. All that is changed. Representative hospitals, the kind from which the delegates to the hospital convention come, still do all the free work which their finances will permit—as every ethical doctor does and as many nurses do in their private practice. Hospitals today have grown into big business institutions with many millions of dollars invested in hospital sites, buildings, equipment and furnishings, and more millions necessary to meet the combined costs of maintenance and operation.

Costs of Hospital Service

At a time when people are discussing the high cost of living it is natural that they should be interested in the price they pay to keep or get them well. Buying medicine and hospital care is much like buying hotel service, an automobile, transportation, advertising in newspapers, clothing or anything else. One usually pays in proportion to what one gets.

There is a long list of medical, nursing, technical and hospital luxuries ready for people who wish to pay for them. Hotels, railroads, newspapers, theaters, automobile manufacturers, department stores, and others with something to sell, make much of their profits by selling various luxuries. In medical, health, hospital, and other medical agency services the public has been misinformed and "educated" to recognize luxuries as essentials and to expect luxuries at the lowest cost which may be charged for essentials only.

There are so many people criticizing the high costs of hospital service, and the criticism is based so largely upon misinformation, that the principal session of the Hospital Convention at Long Beach will be devoted to a thorough discussion of how hospital service may be given more adequately and economically to patients of moderate means.

There has been, and is, considerable complaint from patients against the more or less lengthy list of "extras" that form part of practically all hospital bills, and certainly form part of the cost of operating such institution. These same people do not protest particularly when they are assigned a room in a hotel at $4 per day and find on their account when they leave, extra charges for food, telephone, messenger, laundry, and perhaps a dozen other services that have been rendered to them. This method of charging and cost accounting is the only fair one that can be instituted. It, of course, would be easy to establish a round figure covering all assembled costs of hospital service, and to quote this as a daily rate to any and all patients. If this were done, patients who have very little service would be paying part of the expenses of those who demand and require a great deal. So we must continue to make hospital bills according to this so-called European plan, for the same reason that hotels and other businesses follow this same system.

In order that there may be a better understanding of this controversial subject, one session will discuss "What Should be Included in the Quoted Room or Bed Rates in Hospitals, and What Are Legitimate Extras."

THE PROGRAM

All meetings are open to the public

Thursday, November 6, 1924

Forenoon—Arrival and registration.

The registration desk will be opened at the Hotel Virginia and kept open until Friday evening.

All delegates, workers in the hospital field and persons interested in hospital service are requested to register.

Noon—Informal luncheon at Hotel Virginia at 12 o'clock, $1.50 per plate.

Local committee of arrangements, general committee, official representatives of hospitals and other organizations.

Opening Meeting

Thursday Afternoon, November 6—2 to 5 p. m.

Grand Salon, Hotel Virginia, Long Beach

F. L. Rogers, M. D., Chairman Local Committee, presiding.

1. Address of Welcome, by Hon. Ray R. Clarke, Mayor of Long Beach.
2. Address of Welcome, by Dr. W. H. Kiger, President Los Angeles County Medical Society.
3. Address of Welcome, by Dr. R. W. Wilcox, Harbor Branch, Los Angeles County Medical Society.
4. Response by Dr. Dudley Smith, President League for the Conservation of Public Health.
5. Induction of Chairman of the Conference.
6. Some Problems Confronting Hospitals as Agencies of Scientific Medicine, by Dr. Ray Lyman Wilbur, President Stanford University.
7. What Hospital Betterment Means to Community Welfare—Dr. Malcolm T. MacEachern, Director of Hospital Activities, American College of Surgeons, Chicago, Illinois.
8. Problems Confronting Scientific Medicine and the

Hospitals' Responsibilities in Their Solution—Dr. D. Granville MacGowan, Dr. E. N. Ewer.

Thursday Evening

1. Informal group dinners.
2. Various private entertainments arranged by the local committee.
3. Information Question and Answer Conferences will be conducted by the Hospital Betterment Service Committee of the League, Thursday and Friday evenings from 8 to 9:30 in the League headquarters, Hotel Virginia. Anyone with specific hospital or other medical agency problems is invited to present them for discussion and solution at these conferences.

Friday Morning, November 7, 1924

Delegates and visitors are invited to inspect the hospitals and health agencies of Long Beach and Los Angeles.

Friday Noon

Group luncheons:
Nurses.
Staff.

Second Meeting

Friday Afternoon, November 7, from 2 to 5:30 p. m.

Grand Salon, Hotel Virginia

Dr. W. E. Musgrave, presiding

Subject: The Problem of Hospital Costs.

The entire meeting will be devoted to a discussion of phases of this subject.

1. Report of the committee appointed at the 1923 conference to investigate this subject.

Friday Evening at 9 p. m.

Dinner dance in Ball Room, Hotel Virginia, under the auspices of Chairman Dr. W. Harriman Jones and his committee of the local committee of arrangements. All who register at the conference may secure tickets for themselves and for personal guests at the registration desk. A representative of the Hotel Virginia will be at the registration desk at stated intervals until 2 o'clock Friday and will be glad to arrange special table seatings for groups of friends. Table seatings may be arranged in advance by letter to Mr. Burbank, manager Hotel Virginia.

Saturday Morning, November 8

General Meeting, 10 a. m.

Dr. Percy T. Magan, presiding

Subject: The Best Methods of Co-ordinating the Work of Nursing, Public Health Nursing, Medical Social Service, Including the Articulation of These Services With the Hospital, Physician, Other Health Agencies and the Public.

Subject: Nursing Education. Mrs. Clara S. Lockwood, R. N., presiding.

What should be taught, by whom, where, under whose jurisdiction and for how long? Lines of advisable contacts between the school of nursing and the hospital. Shall California have more than one class of nurses?

Noon: Group luncheons.

Business Meeting, 2 p. m.

Dr. Dudley Smith, presiding

1. Report of Reference Committee.
2. Other business.

What Should be Included in the Quoted Room or Bed Rates in Hospitals and What Constitutes Legitimate Extras?

Five minute prepared papers and informal four-minute discussion.

Adjournment.

The following prominent members of the medical profession and hospital executives are completing elaborate plans for the convention which will insure a well-rounded program, informative and social, of general interest and profit to all who attend. General Committee on Arrangements: Dr. Francis L. Rogers, Chairman; Dr. Neal N. Wood, Los Angeles General Hospital; Dr. Charles D. Lockwood, Pasadena Hospital; Dr. Joseph K. Swindt, Pomona Hospital; Dr. Stephen Smith, Las Encinas, Pasadena; Dr. G. E. Meyers, Compton Sanitarium; Dr. Herbert A. Johnston, Anaheim and Fullerton Hospitals; Mr. L. G. Reynolds, Superintendent Methodist Hospital, Los Angeles; Dr. Frank R. Nuzum, Medical Director Santa Barbara Cottage Hospital; Dr. Harlan Shoemaker, Secretary Los Angeles County Medical Association; Rev. Thomas C. Marshall, Secretary Good Samaritan Hospital, Los Angeles; Dr. C. B. Alexander, Alhambra Hospital; Dr. C. Van Zwalenburg, Riverside; Katherine Lowery, Santa Monica Sisters' Hospital; Dr. C. E. Earley, Los Angeles Golden State; Dr. H. F. Westphal, Glendale Sanitarium and Hospital; Dr. G. W. Olson, California Lutheran Hospital; Dr. W. H. Busher, Olive View Sanitarium; Dr. C. D. Ball, Santa Ana Hospital; Dr. E. H. Thompson, Burbank Hospital; Dr. H. P. Wilson, Whittier Hospital; Dr. Edwin O. Palmer, Hollywood Hospital; Dr. Walter V. Brem, Los Angeles; Dr. Percy T. Magan, White Memorial Hospital, Los Angeles.

Local Committee on Arrangements—Dr. W. Harriman Jones, Chairman; Dr. Walter C. Smallwood: Mr. J. Oliver Brison, Convention Secretary of the Chamber of Commerce; Miss Alice Henniger, Superintendent of Seaside Hospital; Sister Elizabeth, Superintendent St. Mary's Hospital; Miss Blanche Stair, Superintendent Community Hospital; Dr. F. L. Rogers, ex-officio member of the General Committee on Arrangements.

TRUTH ABOUT MEDICINE

New and Non-official Remedies

(Reported by the Council on Pharmacy and Chemistry of the A. M. A.

Meroxyl (Hynson, Westcott & Dunning)—Meroxyl Tablets—H. W. and D.

Oridine (Eli Lilly & Company)—Oridine Tablets.

Diphtheria Toxin Antitoxin Mixture, 0.1, L+—P. D. & Co. (Parke, Davis & Co.)—A diphtheria toxin-antitoxin mixture (see New and Non-official Remedies, 1924, p. 299), each cc. representing 0.1, L+ dose, of diphtheria toxin, neutralized with the required amount of antitoxin. It is marketed in packages of three bulbs, each containing 1 cc.; also, in vials containing 20 cc. Parke, Davis & Co., Detroit.—Journal A. M. A.

Ampules Pituitary Solution—Wilson, 0.5 cc. (Wilson Laboratories).

Pacific Association of Railway Surgeons held its Twenty-second Annual Meeting August 29 and 30, 1924, at San Francisco. The program was as follows:

Food Poisoning—Ernest C. Dickson, San Francisco. (General discussion on Botulism, Ptomain Poisoning, etc.) Sources of Error in the Diagnosis of Renal and Ureteral Calculi (illustrated).—Henry A. R. Kreutzmann, San Francisco. Discussion: G. J. Bergener, San Francisco. Duodenal Diverticula (illustrated).—M. P. Burnham, San Francisco; John O'Neil, San Francisco. Discussion: James A. Guilfoil, San Francisco. Infections of the Hand—C. A. Walker, San Francisco. Discussion: J. H. O'Connor, San Francisco. Drug Dispensing in a Hospital Department—H. B. Dixon, San Francisco. Discussion: W. A. Morrison, Los Angeles. An Analytic Study of 13,000 Wassermann Examinations Among Railway Employes—W. T. Cummins, San Francisco. Discussion: Philip King Brown, San Francisco. The Neurosyphilis Problem—Walter F. Schaller, San Francisco. Discussion: Thomas G. Inman, San Francisco. Some Disabilities Following Injuries About the Shoulder, With Suggestions as to Treatment—James T. Watkins, San Francisco. Discussion: Ethan H. Smith, San Francisco; Walter I. Baldwin.

The new officers for 1924-25 are: W. C. Shipley, president, Cloverdale; O. E. Eklund, first vice-president, San Francisco; W. A. Morrison, second vice-president, Los Angeles; F. W. Lux, treasurer, San Francisco; W. T. Cummins, secretary, San Francisco.

FUTURE ISSUES OF CALIFORNIA AND WESTERN MEDICINE

Contributors and their subjects which will be published in the next several issues of California and Western Medicine include:

Alderson, Harry E. Rice Worker's Dermatitis.
Allen, Charles Lewis. Affectivity; Its Importance in Practical Medicine.
Ayers, Samuel, Jr. Glucose Intolerance Associated with Eczema.
Barkan, Hans. Some Historical Incidents in the Development of the Operation for Cataract.
Barrett, Gilbert M. Post-Traumatic Neuroses—over 1000 head and back injuries.
Bartlett, Edwin I. Industrial Aspects of Abdominal Conditions.
Boardman, W. W., and Schoonmacher, G. D. Treatment of Cholecystitis.
Breyer, J. H. Surgical Treatment of Chronic Peptic Ulcer.
Bruck, Edwin I. Clinical Data Obtained from Series of Cases of Pernicious Anemia.
Bryan, Lloyd. A Case of Secondary Hypertrophic Osteoarthropathy Following Metastatic Sarcoma of Lung.
Bullitt, James B. Stereoscopic Examination of the Two Mastoids on Two Plates.
Burks, Paul (Judge). Some Practical Suggestions Regarding Testimony of Medical Experts.
Carlton, Albert C. Removal of Tonsils by Electrocoagulation.
Catton, Joseph. Adult Delinquency; Its Prevention by Mental Hygiene in Childhood.
Chamberlain, W. E., and Newell. Robert R. X-ray Deep Therapy Installations in California.
Chapman, James W. Use of Lactic Acid Milk in Private Practice.
Chappel, Halbert W. Early Rachitic Changes in the Femur and Tibia.
Christiansen, Elizabeth B. De-etherization by Carbon Dioxid Inhalation (Report of Case).
Churchill, James F. Coronary Obstruction.
Clark, William Arthur. Torticollis.
Cooke, Harry Theodore. Antagonistic Functions of the Uterus in Retation.
Day, Robert V., and Martin, Harry W. Injuries to the Urinary Organs in Relation to Industrial Accidents.
deRiver, Paul J. Present Day Advance in Plastic Surgery with Reference to Correction of Deformities of Nose.
Dillon, James R. Tuberculosis of the Seminal Tract.
Doyle, John B. Clinical Manifestations and Treatment of Epidemic Encephalitis.
Dunlop, John. Chronic Back Pain from a Mechanical Point of View.
Eaton, H. Douglas. Radiographs of the Head from the Clinical Standpoint.
Ely, Leonard. Treatment of Chronic Arthritis.
Evans, Newton, and Tunnel, Phillip J. The Differential Leucocyte Count in Acute Inflammatory Conditions of Surgical Importance.
Evans, Newton, and Risley, E. H. High Protein Ration as a Cause of Nephritis.
Faber, Harold K. Importance of Early Diagnosis in Oxycephaly and Allied Cranial Deformities.
Ferrier, Paul A. Some Problems in the Management of Tumors of the Urinary Bladder.
Fist, Harry S. Rational Conduct of Labor.
Fleming, Howard W. Osteomyelitis of the Skull.
Frick, Donald J. Area Changes in Hearts, Showing Decompensation and Lowered Cardiac Reserve.
Gallant, Alfred E., and Koebig, W. C. Operative Treatment of Abnormalities of Fifth Lumbar Vertebra.
Gilman, P. K. Surgical Amebiasis.
Glaser, Edward F. The Doctor in Industrial Medicine.
Gottlieb, A. Osteochronditis of the Second Matatarsopholangeal Joint (Kochler's Disease).
Gundrum, F. F. Vincent's Disease and Parasyphilis, with Report of Fatal Case.
Gundrum, Lawrence K. Nasal Ganglion Neuroses.
Happ, William M. The Artificial Feeding of Newly Born Infants.
Hare, Herold P. The Relation of Chronic Focal Infection to Backache.
Hinman, Frank, and Kutzmann. Malignant Tumors of the Kidney.
Hunkin, S. J. Conditions, Especially Previous Pathological Conditions, Which Interfere with Results in Industrial Injuries.
Hurwitz, Samuel H. Treatment of Post-Influenzal Asthmatic Bronchitis.
Ingham, Samuel. Treatment of Morbid Fear.
Jesberg, Simon. Foreign Bodies in the Respiratory and Upper Digestive Tract.
Jones, Isaac H. Functional Tests of Hearing.
Kelly, Thomas H. Heart Pain.
Kerr, William J. Coronary Occlusion and Myocardial Degenerations.
Kilduffe, Robert A. The Status of the Clinical Pathologist.
Kilgore, Alson R. Doubtful Tumors, Shall We Excise a Piece for Examination?
Kinney, Lyell. Metastatic Bone Carcinoma.
Lawson, John D. Roentgen Therapy of Uterine Myoma During Pregnancy.
Lisser, H. Frequency of Endogenous Obesity and Its Treatment by Glandular Therapy.
Lobingier, Andrew Steward. Obstruction of the Cystic Duct and Its Surgical Consequences.
Lynch, Frank W. Backache in Gynecology—A Study of Its Frequency and Meaning.
Magan, Percy T. The Story of Medical Social Service Work and Its Present Status.
Maghy, Charles. Blood Staining of the Cornea.
Mathe, Charles P. Carbuncle of the Kidney.
McChesney, George J. Lengthening the Quadriceps Tendon for Stiff Knee.
Metzner, Abraham. Diphtheria Immunization.
Miller, Hiram E. Ringworm of the Scalp.
Montgomery, Douglas, and Culver, George D. Epithelioma of the Lip Treated with Radium.
Moore, E. C. Esophageal Diverticula.
Morrow, Howard, and Taussig, Laurence. Some Pathological Conditions of the Tongue.
Negley, J. C. Spinal Anesthesia in Urology.
O'Connor, Roderic. Head Pains of Ocular Origin.
Orbison, Thomas J. The Psycho-neuroses; Psychasthenia, Neurasthenia and Hysteria.
Phillips, C. E. Surgical Treatment of Diseases of the Colon.
Phillips, C. E., and Johnson, Roy H. Regional Anesthesia.
Piness, George, and Miller, Hyman. Allergy and Its Relation to the Otolaryngologist.
Player, Lionel P. Prostate and Its Influence on Low Back Pain.
Powers, Robert A. The X-ray Diagnosis of Disease of the Nasal Accessory Sinuses, etc.
Pyles, R. H. Correction of Flexion, etc., of Lower Extremities Resulting from Cerebral Palsy of Childhood.
Reynolds, Cecil E. Further Points in the Physiology of Brain Surgery.
Richards, Robert Lewis. Reasons for a Child Guidance Clinic.
Rixford, Emmet. Temperature of Operating Rooms.
Roberts, George F., and Hosmer, Andrew J. Use of Sodium Thiosulphate in Metallic Poisonings.
Rogers, Francis L. Congenital Nasal Atresia.
Rosanoff, Aaron J. Los Angeles Experience in Child Guidance Work.
Rosenkranz, Herbert A. Some Important Points in the Rapid Healing, etc., in Suprapubic Prostatectomy Cases.
Ruediger, E. H. A Plea in Favor of a Standardized Wassermann Test.
Scholtz, Moses. Skin Syphilis as Clinical Entity.
Schroeter, O. V. Relationship of Metabolic Toxins to Dermatoses.
Schulz, Raymond L. Stricture of the Ureter and Dysmenorhoea.
Schussler, Herman, Jr. Intensive Treatment of Congenital Syphilis.
Scott, Alfred J., Jr. Statistical Study of Empyema in Past Ten Years in Children.
Sheldon, Francis B. X-ray of the Urinary Tract, with Report of a Case of Congenital Unilateral Kidney.
Shephard, John Hunt. Factors Influencing Morbidity or Mortality of Exophthalmic Goiter.
Shuman, John W. Questionable Diagnostic Methods.
Smith, Bertnard. A Symptom Complex in Diabetes That May be Confused with Reaction from Overdose of Insulin.
Smith, Curtis E. The Pathology of Colitis.
Smith, Sydney Kinnear. The Habit Clinic for the Pre-School Child.
Snure, Henry. Survey of Non-Tubercular Chest Lesions.
Spiers, H. W. Twenty-one Consecutive Amhulatory Back Injuries with Special Reference to Fracture of Spine.
Stevens, William E. Kidney Anomalies; Report of Case of Bilateral Fusion of a Supernumerary Kidney.
Stewart, S. F. Treatment of Flexion Deformity of the Hip Joint.
Tarr, Earl M. Development and Re-establishment of Breast Milk by Use of Abt's Electric Breast Pump.
Timme, A. R. The Reflex Nervous Disorders as Described hy Babinski.
Toland, C. G. Acute Pancreatitis.
Twitchell, Edward W. Intracranial Hypertension and Serons Meningitis.
Ullmann, H. J. Metastatic Testicular Carcinoma Involving Abdominal, Mediastinal—Glands Treated by X-ray.
Welty, Cullen F. Surgery of the Antrum of Highmore.
Williams, Edward Huntington. Some Fears of Endocrine Origin.
Woolf, M. S. Chronic Ulcerative Colitis.
Woolley, Paul G. The Relation of the Clinical Laboratories to the Practice of Medicine.
Wright, Clifford. Consideration of Progressive Muscular Dystrophy with Pseudo-hypertrophy from Endocrine Standpoint.
Wright, Harold W. The Inferiority Complex and Its Psychiatric Significance.

A NEW MULTIFOCAL LENS

A lens known as the Cross Trifocal Lens will soon be offered to the medical profession. It claims two new principles of construction. The lens will give three fields of vision, and its arrangement is such that a monocentric principle is applied to all three focal powers.

The discovery of a monocentric principle as applied to ophthalmic lenses of more than two focal powers was made in 1907. The intervening years have been devoted to perfecting methods for the practical application of this discovery.

The arrangement of the Cross Trifocal Lens is unique, in that four intermediate areas occupy portions of the lens surface which in bifocals, through non-use, are practically wasted. The intermediate fields of the new lens are brought into use by a side glance or slight turn of the head. When not required, the intermediate areas are said to be out of the way; yet are always ready for instant use.

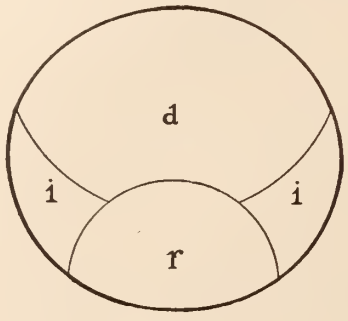


Figure 1.

In Figure 1, d represents the distance field of the new lens, which is made with the focal power required for the wearer's distance correction; r represents the reading field of the lens, which is made with the focal power required for the desired reading vision; ii represents the intermediate fields, which characterize the Cross Trifocal Lens. The focal power of the intermediate fields is midway between the powers of the distance and of the reading portions.

The inventor has suggested the following tests, in proving the monocentric principle of having one optical center that is good for far, near, and intermediate areas.

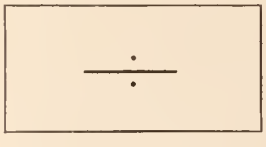


Figure 2.

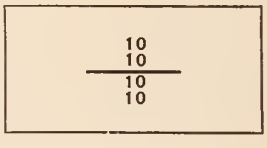


Figure 3.

Hold any bifocal lens about eight inches from the dots in Figure 2 or the 10s in Figure 3, and about eight inches from the eye (the other eye being closed). Have the top edge of the reading part of the bifocal so that it just reaches the line between the two dots or the line between the 10s. If the lens is bicentric for reading and distance, the prismatic displacement will cause the lower one of the two dots to disappear and the column of the 10s will not total correctly, for one or more of the 10s will disappear. Repeating this test with the Cross Trifocal Lens, both dots and all the 10s will be seen, for there is no displacement.

Place a bright coin on the floor and look at it from a distance of three or four feet through a pair of bifocal glasses as ordinarily worn. If the lenses are bicentric, the coin will appear double when the vision is just on the dividing line between distance and reading. Repeat this test with the new lens. Only one coin will be seen, and in its true position.

Cross Trifocal Lenses are co-centric for distance and reading. In looking at a letter through the dividing line between the two fields, the lower part of it may be magnified a trifle, but there is no gap, and no part is missing. In looking through Cross Trifocal Lenses at a step while descending or ascending a flight of stairs, the edge of each step is where it appears to be, for no displacement occurs.

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Yadil (Propaganda for Reform, reported by Council on Pharmacy and Chemistry of the A. M. A.)—This is an international fake of British origin. The advertising campaign for Yadil reminds one of Sanatogen in those palmy days when the public could be persuaded to pay a dollar for a few cents' worth of cottage cheese. As Sanatogen was the apothesis of cottage cheese, so Yadil is supposed to be a glorified and esoteric form of garlic. A part of the Yadil advertising campaign is an alleged history of garlic as a curative agent. Just what the theory of its use may be is not clear. Possibly the basic idea is that no self-respecting germ will want to tarry in an organism saturated with garlic. Yadil is put on the market by Clement & Johnson Bros. of London. The concern has a subsidiary company for its publicity, known as the Yadil Press, Limited (formerly called "Quality Press, Limited"). The American agents are E. Fougera & Co., New York. In the British Isles, newspapers and magazines are carrying full-page and middle-page spreads for Yadil for tuberculosis, for cancer, for scarlet fever, for gonorrhea, and for what-have-you. The British newspaper, The Daily Mail, which has refused Yadil advertising, published in its issue of July 22, an exposure of Yadil written by Sir William J. Pope, senior professor of chemistry in the University of Cambridge. Whereas, the manufacturers claim that Yadil is "Trimethanal Allylic Carbide," and declare that it is of entirely harmless vegetable origin, its active principle being natural essential oil of garlic, Professor Pope, after an analysis of Yadil, stated that (1) it is not "Trimethanal Allylic Carbide," (2) that it consists of about 1 per cent formaldehyd, 4 per cent of glycerin, 95 per cent of water, and a smell. According to Professor Pope, the smell can be closely imitated by adding to 100 tons of water one ounce of oil of garlic. He also discusses the testimonials both from physicians and from laymen, and shows the utter worthlessness of the testimony. In another article in The Daily Mail, Professor W. E. Dixon of the University of Cambridge emphasizes that the basic drug in Yadil is an irritant poison with cumulative effects, and characterizes some of the medical evidence for Yadil as nonsense.—Journal A. M. A.

More Misbranded Nostrums—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: De Witt's Kidney and Bladder Pills (E. C. De Witt & Co), consisting essentially of methylene blue, potassium nitrate and plant material, including a volatile oil, such as juniper oil. Foster's Backache Kidney Pills (Porto Rico Drug Co.), consisting of potassium nitrate, rosin, fenugreek, uva ursi, and an essential oil such as juniper. Glycofostina (Henry S. Wampole Co., Baltimore), consisting essentially of strychnin sulphate, sodium calcium and potassium glycerophosphate, alcohol and water.—Journal A. M. A.

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Action More Than Education Needed—"Preventive medicine is an aspect of social evolution, which involves wide and deep apprehension and practice in society as a whole. It concerns individual habit and communal custom. It must not only follow in the wake of growing knowledge and await that knowledge, but **it is dependent on the readiness of the great mass of the people to accept, understand and apply that knowledge, at least in substance and principle.** All wise government no doubt depends on the assent of the governed, but in public and private medicine an even fuller assent is needful, if the individual is to reap his full advantage and at the same time act loyally as a member of the community. In fact, he is under obligation to cultivate his own health and capacity, and so to conduct himself as not to conduce to the hurt or risk of his neighbors. Hence, the progress of preventive medicine depends in extraordinary degree upon the enlightenment and education of the people."

Some Dangers of Publicity—Itinerant "doctors," specialists, health surveyors, and various other mercenaries are having troubles in sunny California. Publicity and other forms of free advertising if they can get it, and paid advertising if they must, is the chief stock in trade of most of these gentry. After they get their publicity going and open their unique offices, it happens sometimes that one of their first "clients" is an operative for the Board of Medical Examiners. After this visit there is another newspaper story of quite a different character. This is good work. More and more of it should be done. No greater service can be rendered to the citizens of California than that of keeping these people moving. The Board of Medical Examiners have ample power under the law, provided our courts will uphold them, to clean the state of a lot of scalawags now preying upon the health of credulous citizens.

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CALIFORNIA
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SPECIAL ARTICLE

THE RELATION OF THE CLINICAL LABORATORIES TO THE PRACTICE OF MEDICINE *

By PAUL G. WOOLLEY, M. D., Los Angeles

WHEN properly used, the laboratory is an auxiliary rather than a handicap to the development of the "clinical senses," as has been frequently charged.

The line connecting clinical medicine and the laboratory is a dotted one. A clinical laboratory is not a diagnostic institute.

The most important service of a laboratory is to give the physician something to think about and to consult or read about. The laboratory is the assistant to the physician—not his master. It can never replace trained hands, eyes, and ears.

I WISH to present the point of view that the laboratory is subsidiary in the practice of medicine. To at least a small extent, therefore, I differ from some clinical pathologists and pathologists who seem to confuse the tremendous theoretic and often distant practical value of the general laboratory as an institution, and the immediate value of the clinical laboratory in relation to medical practice.

In the reports of the St. Andrews' Institute, in the section devoted to case-taking methods, these sentences occur: "The necessary chemical, bacteriological, hematological and radiological investigations are carried out by the special departments devoted to these subjects, and with every specimen or case full clinical notes are supplied to the special departments. When the notes of each case are completed, they are read at a full meeting of staff and discussed in detail." I call these sentences to your attention in order to emphasize the fact that the laboratory work is called for as a last resort, otherwise full clinical notes could not accompany the requests made upon the laboratory, and that the case reports are discussed by a full staff which includes the laboratory men.

The St. Andrews Institute is the most modern model of a thorough clinic. The relation of the laboratory to the clinic as a whole is interesting. It is also interesting in respect of recent opinions regarding the relation of the laboratory to general medicine.

Recently, Dr. Wilbur has inferred that bringing in the laboratory has crowded out the clinical senses. He says: "We must understand how to get our hands on the patient. The personal touch is essential. We must get back into medicine the personal element. The distant approach through the laboratory is ruinous to the confidential relationship of patient and physician. The dramatic discoveries of the laboratory have numbed the talents of the five senses." (Personally, I think Dr. Wilbur should have said the six senses.)

Sir James Mackenzie believes that a "laboratory-trained observer cannot recognize any sign except those of a grosser kind, while the subtler and more elusive signs pass unrecognized." In clinical medicine the grosser kinds have to be detected, and the laboratory-trained observer can detect them, but his training has not enabled him to detect the subtler reactions, and hence he fails to obtain that skill in observation which is essential to the physician.

These quotations from the writings of prominent clinicians indicate that there is a tendency, to say the least, to conceive of the laboratory as something of a handicap to the continued development of the "clinical sense." The main objection seems to be that laboratory methods tend to the use of short cuts in diagnosis, and that they tend, therefore, to replace concentrated and trained personal observation, and often to erroneous conclusions. In other words, there seems to be a growing belief that careless use of laboratory methods results in clinical inefficiency. I personally believe that there is considerable truth in this attitude, but it seems to me that the fault is rather on the side of the clinic than on that of the laboratory, though both have a share.

It is not so much that laboratory reports are misleading, or even incorrect, but that they tend to make the physician rely too little upon himself. This may not be essentially or intrinsically bad for the patient, but for the physician it is a pity.

I should like to remark just at this point that the generalized practice of vaccine therapy exemplifies nicely this point. A great deal of vaccine therapy has led many practitioners to a belief in *propter hoc*,

* Presented by invitation at the General Sessions of the California Medical Association's Fifty-... ...ual Session, Los Angeles, May, 1924.

when the results were actually only *post hoc*. In many laboratories the preparation of vaccines, though not the giving of them—thank God—constitutes a large part of the work.

Perhaps the whole situation rests upon a foundation of faulty teaching, which, because of the wonderful achievements of experimental work with instruments and methods of precision, emphasizes the laboratory methods and neglects, to a corresponding degree, the very careful training of the unaided senses of the student of medicine. Students become laboratory-trained observers, in the sense of Mackenzie. It is not that they cannot recognize the "subtler and more elusive signs," but that they have not been trained to do so. They have less to do with patients than with materials from them. When it comes to a final analysis, Mackenzie himself used, for a time at least, laboratory methods and equipment which pointed out to him "the subtler and elusive signs" which he so much emphasizes, so that eventually it became possible for him to discard, more or less, the methods and instruments which taught him.

This accentuation of the laboratory methods and the relative disregard of dependence upon the unaided senses have, it is true, led to a state of affairs which is to be deplored. It is probably easier to teach the use of the methods of the laboratory alone than to teach the use of the five senses, and cultivate the sixth. There is the feeling in certain quarters that at least part of the trouble lies in the curriculum of the medical school, and with this feeling comes the suggestion to smash the curriculum and then remold it nearer to the heart's desire. But there is not so much need "to smash the present curriculum and revamp it to bring it up to the medical requirements of modern knowledge" as to correlate its parts so that pre-medical and medical courses are co-ordinated and so related to one another and so made use of one in another, that the scientific requirements of modern medicine are met. Present courses are often, as Dr. Wilbur says, ridiculous, but often this is true because they are taught as so-called medical courses. There is no such thing as medical chemistry until after a firm foundation has been laid in pure physics and chemistry. It is because of such so-called "medical courses" that the scientific world is making progress more rapidly than the ordinary medical school has been able to assimilate the results. It may not be necessary for the practicing physician to know the details of modern physics and chemistry, or to know the exact technic of a test for blood sugar, but he ought to know the general principles. If premedical physics and chemistry were used in the courses following through in the curriculum; if physics and chemistry were actively correlated with anatomy, physiology, biochemistry, pathology and physical diagnosis, a great gain could be made. In other words, make the laboratory courses kinetic instead of static. Such a correlation or system of correlations would result in some sort of "case-methods" of teaching medicine, for which much could be said. If Cushing's suggestion to invert the curriculum were tried, the danger of divorcing pre-medical science and medical courses would be enhanced.

The present system of medical teaching has resulted in the isolation of the clinical laboratory, so that at the present time it occupies a place in medicine somewhat analogous to the place occupied by the anatomy of the nervous system or psychology in the curriculum. The line connecting clinical medicine and the laboratory is a dotted one.

In the scheme of medical practice, neither the pathologist nor the methods he uses occupy the place of greatest value. The pathologist is looked upon as a mere technician. In some instances, he is, fortunately, considered as a more or less magnified one. And yet he is expected, not uncommonly, to make diagnoses.

A clinical laboratory is not a diagnostic institution. By that is meant that it is not an institution in which the main object is to make diagnoses by means of specimens. It is an institution, a workshop, in which data of clinical value are sought and given to physicians to whom, when they are added to his clinical history, they have a definite meaning, with respect to his interpretation of a patient's ills. By means of such data, the physician is more easily able (or more quickly able) to arrive at a diagnosis, more accurately to estimate a prognosis, and more confidently to institute logical therapeusis.

In but few instances have clinical laboratories risen to the place they ought to occupy, for the reason that the need of them has grown at such surpassing speed that the demand for heads has exceeded the supply. Thus, it has come to pass that they have been organized chiefly to turn out reports, so to speak. Groups of physicians, hospitals, here and there, clinics everywhere have demanded technicians, not clinical pathologists, and have been willing to pay but technicians' wages up until the most recent times. And they have got just what they deserved—technicians' services. They have *not* got what they out to have—very special skill and knowledge based upon training and experience. And, therefore, the laboratory has become too frequently only an adjunct of the group, of the hospital, of the clinic, instead of being an essentially integral part of each, upon a consultation basis. In the proper clinical laboratory the chief should be chosen partly for his skill, partly for his experience and judgment. To him the physician should come with problems to discuss, to get perspective, to get advice and information gleaned from fields which the practitioner cannot even be expected to know; for how can the busy doctor find time to read the various more specialized journals of medical chemistry, bacteriology, immunology and the like, when he has scarcely time—if he have even so much—to read his own local state journal and his national medical journal?

One of the best subjects to illustrate the interrelationships of clinical and laboratory studies is urinalysis, because in the clinic of renal disease the conclusions as to the functional activity and pathology of the kidney have been based very generally upon urine analytic reports.

There is not a single item looked for in a routine urinalysis which of itself means disease of the kidney. The presence of casts and albumin do not necessarily mean renal disease, nor does the presence of pus cells or of blood. Nor in case there is

actual disease of the kidneys does the amount of abnormal materials indicate necessarily the amount of disease. In Stark's series of 600 cases which came to autopsy, the clinical and anatomical diagnoses agreed with respect to the kidney) in but 36 per cent.

Certain conditions have been shown to be requisite for the secretion of a normal urine. In the first place, there must be at least 18 to 20 per cent of normal kidney weight. In other words, an animal may have lost from 75 to 80 per cent of his kidney substance and still preserve an adequate function, provided the surviving tissue is normal. In the second place, the vascular system must be sufficient, for, naturally enough, unless an adequate amount of blood can reach the kidneys, and unless the renal vessels have a normal permeability, the system will be lacking. In the third place, there must be a sufficient supply of free water, for otherwise the excess of salts cannot be carried out of the body in normal amounts, and will accumulate; and in the fourth place, there must be a free outlet from the body, for otherwise the fluid will be dammed back in the urinary system and will impair the renal secretory activities.

The facts are that the glomerulus secretes water and salts, and that the tubular system resorbs salts and excretes nitrogenous bodies. That being the case, one should be able to say in case of disease that, if there is salt and water retention, the glomerulus is the essentially damaged part of the organ, and that if nitrogen accumulates in the body the disease is essentially tubular. This sharp demarcation of disease can be produced experimentally no doubt, but it rarely occurs in nature, and so the features of renal disease are always mixed. Moreover, even fairly sharply delimited disease of the tubules may cause water retention, because swelling of the cells prevents the passage of water from the glomerulus through the tubules, and since that is true there can be no resorption of salts. It is impossible to demarcate the lesions because demarcation does not occur. Inflammatory nephropathies always (speaking generally) affect both glomerulus and tubules.

Another set of factors influence our clinical studies of nephritis, and these have to do with the distribution of renal lesions. In some cases the changes affect the whole organ; they are diffuse. In others they affect only parts of the organ; they are focal, "spotty." What does this mean? This, that if one part of the kidney is normal that part produces a normal urine. If one part is abnormal it produces an abnormal urine. The two urines mix in the pelvis and in the bladder, and the result is, of course, composite. That is one reason why urinalysis alone tells so little in many cases. It may even be that if there is sufficient normal tissue left it is able to do the complete secretion and absorption work for the body, and so nitrogenous bodies do not accumulate in the blood. It is such cases that show a normal or slightly abnormal blood nitrogen, a normal phthalein output, an almost normal urine, yet which are on the ragged edge between health and disability. And what of a state of affairs in which one kidney is badly damaged and the other healthy! Here, of course, lack of elimination in one side will be taken care of in the other.

When one takes all these things into consideration he realizes at once that conclusions as to the state of the kidney drawn from studies of the urine alone may be "as brittle as the urinal." A kidney which is 50 to 75 per cent diseased may produce a normal urine, when the diseased portions are so damaged that they do not secrete. The normal urine comes from the normal parts of a diseased kidney. Isn't this exactly what happens in a so-called chronic interstitial nephritis?

Coffen has reported an intensive study of albuminuria, with special reference to its clinical significance, and says: "Albuminuria is not a sure indication of damaged kidneys; for it may appear when these organs are normal, as in orthostatic albuminuria, or it may be absent in a widespread degeneration of the kidneys as in interstitial nephritis. Furthermore, albuminuria may be excessive from passive congestion of the kidneys, the primary difficulty being in the heart. When albuminuria is excessive and associated with oliguria and apparent uremia, as a late event in arterial hypertension or in circulatory failure, it may cause much apprehension; on the other hand, the absence of albumin in the urine may give a false sense of security." From these and collateral remarks it is readily seen that dependence upon urinary findings alone leads to error.

In other words, a laboratory report which says, in effect, that the urine is normal does not mean necessarily that the kidneys are normal. Even Shakespeare knew that the urine itself might be a very healthy urine, but for the person who had the passing thereof, he might have more diseases than was suspected. And an abnormal urine may not refer to actual renal disease, but rather to a pathologic heart or to a damaged vascular system.

In other sectors of pathology, one finds similar states of affairs which emphasize the need of close co-operation between physician and pathologist. For instance, the absence of tubercle bacilli in a sputum does not mean absence of active pulmonary tuberculosis. A negative Wassermann is not proof of freedom from luetic infection.

Sometimes the laboratory is able to make a clean-cut diagnosis, but if one considers the volume of laboratory work, this is rare. What it does do is to give the physician something to think about and to consult or to read about. The laboratory is the assistant of the physician—not his master. It should not make him less careful, but more careful, and should help to keep him up to date in fields in which he does not work. It can never replace trained hands, and eyes, and ears, even though it oftentimes supplies some facts that are *essential* in aiding accurate diagnosis, in influencing prognosis, and in deciding problems of treatment.

The clinical laboratory should be the agency through which the physician is kept abreast of the advances of medical science which are founded upon physics, chemistry, bacteriology, and pathology.

OBSTRUCTION OF THE CYSTIC DUCT AND ITS SURGICAL CONSEQUENCES

By ANDREW STEWART LOBINGIER, M. D., Los Angeles

Too little attention has been given to the importance of the cystic duct in acute conditions of the gall-bladder.

The complicated anatomy of the cystic duct; its many variations; its relation to other ducts, and the grave complications consequent upon its obstruction merit critical consideration.

Discussion *by Dow H. Ransom, Madera; H. A. L. Ryfkogel, San Francisco; C. P. Thomas, Los Angeles; Willard J. Stone, Pasadena; and Emmet Rixford, San Francisco.*

Some of the most complicated pathology is associated with obstruction of the cystic duct, yet one rarely sees the subject discussed in the current surgical literature. The list in this complex comprises many of the most hazardous to the life of the patient of all the pathologic conditions found in the gall-bladder. Cysticus, empyema, necrotic oedema, and gangrene are in themselves sufficient to distinguish the subject as one worthy of the most serious consideration.

In this limited discussion, we can only briefly consider some of the more important factors contributing to obstruction.

The spiral form of the cystic duct, with its numerous valves of Heister which operate in the physiologic retention and discharge of the bile, are most important factors in the lodgment and ultimate impaction of an obstructing stone. When this obstruction is more or less complete, the wall of the gall-bladder develops a low resistance and septic bacteria, which may be borne to its walls through the lymph channels leading from the liver, find a culture medium favorable to their growth. Moreover, the experimental studies of Chiarolanza and of Peterman, proved conclusively that when the cystic duct was totally obstructed (ligated in their experiment) bacteria were found in abundance in the contents of the gall-bladder. The bile is absent in total obstruction, and what germicidal action it may have is not operative.

The pressure from an impacted stone may cause an oedema in the gall-bladder wall which may become necrotic in degree, a condition which is antecedent to gangrene itself. True gangrene is rarely seen, due probably to an early recognition by the surgeon of acute infection before true gangrene ensues.

In cysticus, the process of oedema never goes on to necrotic destruction. The bile is gradually excluded, for, at the beginning, the stone is acting only as a ball valve, allowing some bile to come into the bladder and escape from it. The walls are gradually thickening through this chronic process, which may cover a period of many years. Finally, the occlusion of the cystic duct becomes complete, either from impaction by the stone or, as one rarely sees, the stone has disappeared, but had produced an ulceration in the mucosa of the duct and a hyperplasia of the wall, so that a definite occluding stricture has resulted. A cystic gall-bladder may be hyperplastic or have a thin wall, depending entirely upon the amount of mucus poured out from its wall. It is always painful, and the degree of pain suffered will be dependent on the tension arising from the imprisoned mucus.

There are some cystic gall-bladders which may have been acutely infected in the beginning, but were not recognized as surgical crises, and passed back into a latent condition, in which cysticus was the terminal result.

It is conceivable that a cystic gall-bladder in the early stages of its development may, before its lymphatic system has become destroyed, develop an empyema from a flood of septic bacteria pouring into it through the lymph channels from a distant septic focus. As we have seen, this infection must come by way of the liver, and the portal circulation is the stream which bears the colonies that filter through into the hepatic lymph spaces and through them into the lymphatics of the gall-bladder. These are possibilities, but they do not represent the usual course in the development of necrotic oedema or of empyema of the gall-bladder. When we revert to the lymphatic and blood supply of the gall-bladder, we observe the anatomical arrangement by which pressure from within, from a stone which suddenly had become definitely impacted, can quickly derange or cut off the blood supply and lymph drainage, so as to favor the infection of the contents of the gall-bladder or the necrotic destruction of its wall. All the conditions favorable to infection are found present; it is only a question of the degree of virulence of the bacteria or of the obstruction to the vessels which nourish the gall-bladder. Writers are fond of finding an analogy between this pathology and that present in a necrotic vermiform appendix. But the pathologic physiology, while superficially similar, is considerably more complex in the gall-bladder.

The symptoms of calculus obstruction of the cystic duct are colicky pain, tenderness, and increasing tumor.

Riedel found jaundice in 12 to 15 per cent from pressure on the common hepatic duct. If septic infection ensues, there will be rigidity of the rectus, increasing tenderness, chills, and temperature ranging from 100 F. to 104 F., with a corresponding increase in the pulse rate.

There is a high leucocytosis, ranging from 20,000 to 30,000, with 80 to 90 per cent polymorphonuclear count. A certain percentage will have jaundice, although we have seen this complication in only three cases. Jaundice may arise from the odema extending downward toward the common hepatic duct, which, taken with the pressure of the occluding stone, may cause a long persisting jaundice and leave doubt in the mind of the operator whether a stone may not have been left in the common duct. A meddlesome exploration of the chaledochus or common hepatic duct is a doubtful procedure in acutely septic gall-bladders. And not uncommonly one finds the foramen of Winslow sealed by adhesions, with a general oedematous condition of the tissues surrounding the common ducts. An effort should always be made, however, when a jaundice is present, to discover by external finger palpation, whether a calculus is present in either of the common ducts. Diagnosis should not be difficult, but it may be found necessary to differentiate from acute perforation of the duodenum with peritonitis, or from acute right kidney infection with stone.

A few cases are recorded of an elongated vermiform appendix being attached to the gall-bladder

and becoming acutely septic, with symptoms closely simulating necrotic oedema of the gall-bladder.

Two grave complications may increase the gravity of the prognosis, which at best is usually serious in these cases: perforation of the necrotic gall-bladder and true gangrene. They are not commonly met with, but are quite possible in cases where operation is delayed. Local peritonitis with pus formation around the gall-bladder was found in two of our cases without perforation. Subphrenic abscess is imminent in perforation.

We have met with but one case of true gangrene, and in this case gangrene of the entire gall-bladder occurred. It was one of those unfortunate cases not recognized in time, although we operated immediately on being called. True gangrene of the gall-bladder is so rare, practically no cases are recorded in the literature. And it is a great credit to surgical diagnosis that this is true, for complete gangrene of the gall-bladder is a lethal condition.

The prognosis in cysticus is always favorable. Many cases of cystic gall-bladder result from removal of a single stone which has caused ulceration of the cystic duct, and after the stone is removed the gall-bladder is drained and the ulcer in healing leaves the duct tightly strictured. A cystic gall-bladder should always be removed.

The prognosis in empyema and necrotic oedema must always be conservative. These conditions constitute the most serious pathology we encounter in this region, and their complications are frequently lethal. The gall-bladder should always be removed if the condition of the patient will permit; for if not removed, and the patient survives, subsequent removal will be imperative. However, there are conditions in which drainage, under local anesthesia, is the only course which good judgment can dictate, and these bad risks cannot bear more than this.

The gravity of the emergency will justify this compromise, which can always be explained to the friends of the patient.

In conclusion, this brief discussion has been inspired by the belief that too little attention has been given to the importance of the cystic duct in the acute pathology of the gall-bladder. Its interesting and complicated anatomy, its many variations in form, course and position with relation to the choledochus and common hepatic duct, the grave surgical complications which may arise from its obstruction, all merit a critical consideration.

714 Merritt Building.

DISCUSSION

Dow H. Ransom (Madera, Calif.) — There is one point which I would like to mention in addition to what Dr. Lobingier has said in his excellent symposium on biliary duct obstruction, and that is an improved incision which gives us an easy access to the gall-bladder region. This phase of the subject might be considered a little irrelevant and possibly somewhat immaterial, still, I believe a suggestion which will improve our technique and improve our results in surgery is worthy of our consideration.

The incision to which I refer was first brought to my attention in an article in the Journal of Surgery, Gynecology and Obstetrics some time in the latter part of 1917 by Dr. Seigel of St. Louis. It consists of a straight incision beginning one or two cm. below the tip of the ensiform cartilage, extending obliquely downward, terminating about four cm. to the right of the umbilicus and extending down through the external layer of the fascia of the right rectus abdominalis muscle. The fascia is then separated with the handle of a scalpel, and the muscle is retracted to the right, leaving the internal fascia exposed. This, together with the peritoneum, is next incised in a line directly underneath and corresponding to the skin incision. In my experience, this incision gives the best view of the gall-bladder, cystic and common ducts. It has the added advantages of being easily and rapidly made, allowing access to the right upper abdomen without dividing a muscle or interfering with its nerve or blood supply.

H. A. L. Ryfkogel, M. D. (516 Sutter Street, San Francisco)—In the severe acute infections of the gall-bladder, gangrene is often partial and sometimes apparently limited to the mucous membrane. In these cases I have found a procedure, suggested by C. H. Mayo, of great value. This consists in rapidly peeling out the necrotic mucous membrane, using the handle of the scalpel. It is surprising how rapidly and easily this can be done. Part of the gall-bladder may or may not be scissored away, and into the shell a drainage tube is inserted. The walls will later adhere and the remains of the gall-bladder be converted into a fibrous cord, the later removal of which is unnecessary. Where there is peritoneal infection and the patient profoundly septic, I use a coffer drain, packing any surrounding intestines and stomach with broad sheets of rubber dam, and then inserting numerous strips of iodoform gauze between the rubber dam and the infected gall-bladder and liver. The retention of the gauze will produce what Horsely terms a reversal of the lymph circulation, and the toxic lymph will flow outward instead of being absorbed.

C. P. Thomas (Consolidated Building, Los Angeles)—This most practical paper by Dr. Lobingier deals with one of the most serious conditions to which the human body is heir. While the gall-bladder is in position, whether functioning normally or otherwise, it must have an outlet, and the normal one is the best one.

When the cystic duct becomes obstructed without much sepsis, the gall-bladder becomes a large painful sac; when infected or abscessed, then perforation or gangrene supervenes, followed in a short time by peritonitis and death.

The doctor wisely says that surgery here, to be successful, must be done early, preferably before even local necrosis exists, and if done after extensive necrosis, which is really gangrene, the death rate will always be great.

There is no room for improvement in his description of the symptomatology, pathology and general course of obstructive duct troubles or their sequences, but I wish to simply make one or two suggestions about the treatment of the severely infected gall-bladder.

Where it is possible to remove the entire sac and all the badly infected portions of the cystic duct, almost any simple form of drainage will suffice, but often a complete cholecystectomy cannot be done, and it is in this class of case that a reliable and complete cofferdam effect must be provided: Simple drainage here without thorough walling off is inevitably followed by general infection, absorption, and often death.

A method I have used for keeping the necrotic or septic tissues away from the normal tissue is to surround the diseased area with a large, rather soft rubber tube an inch in diameter, notched at one end to fit over the common duct, and another larger notch or slit extending from the lower end of the tube in such a way as to allow it to surround all of the sac except the portion attached to the edge of the liver.

If the tube is cut and fitted properly it completely separates the normal from the diseased tissues.

This tube should project about one-half inch above the skin, to which it should be sutured, to prevent its slipping out.

If a small tube has been placed in the gall-bladder or duct it should come up through the big one, and can be attached to a bottle to save so much soiling of dressings.

The large tube can be removed after five or six days, and the wound allowed to close by granulation.

Hernia after this large drain is rare if the rest of the incision has been properly closed.

It is my opinion that, with this simple procedure, the death rate from the operative treatment of gangrenous gall-bladder can be very materially reduced.

Willard J. Stone, M. D. (Chamber of Commerce Building, Pasadena, Calif.)—From the medical standpoint,

it may be recalled that in probably 80 per cent of the patients who consult physicians because of indigestion, the primary cause of the disturbance does not originate in the stomach. Infection or stone of the gall-bladder, consequent or subsequent to obstruction of the cystic duct, should be borne in mind in the diagnosis of every patient with dyspeptic symptoms. Modern methods of diagnosis offer much to such patients, for if the diagnosis can be established early, the more serious remote effects mentioned by Dr. Lobingier may be prevented by the proper application of surgical skill and judgment. Indirect evidence of disturbed function or disease in this region of the abdomen, from an x-ray standpoint, may be as important to the patient as the more direct evidence of a stone seen on the films. The duodenal tube, by means of which drainage from the biliary ducts may be facilitated, is of distinct help in the diagnosis. The evidence obtained is, however, indirect. Gall-bladder drainage by the duodenal tube, as such, is a misnomer. The association of gall-bladder disease with disturbed heart function or disease occurs frequently enough in elderly patients to make the physician reasonably conservative in his advice. Many times the association may be no more than an age coincidence. On the other hand, I have not infrequently advised operation for the relief of the conditions, mentioned by Dr. Lobingier, to patients believed to be bad heart risks with gratifying results. In the hands of a competent anesthetist and skillful surgeon the risk of operation for the relief of an empyema of the gall-bladder or obstruction of the cystic duct may not be as great as procrastination, based upon the hope that the process will right itself without surgical interference.

Emmet Rixford, M. D. (1795 California Street, San Francisco)—When the gall-bladder region is explored in mild cases of gall-bladder disease, perhaps when the diagnosis is in doubt, it is common practice to consider enlargement of the lymph nodes, which lie along the common and cystic ducts as evidence of infection of the gall-bladder wall—at times justifying cholecystectomy. One should remember that there are other causes of enlargement of these lymph glands, notably, ulcer of the duodenum.

In the technique of cholecystectomy little attention is paid to the cystic artery other than to ligate it. Some one in Chicago called attention to the very considerable frequency of anomalies of this vessel which may be of serious importance. The usual course of the cystic artery is along the left or mesial side of the cystic duct. A large branch not infrequently comes off near the point of bifurcation of the bile ducts and runs up the sulcus on the right or lateral side of the gall-bladder. Occasionally, this branch is larger than the left branch, indeed, it may entirely supplant it. As this artery crosses the cystic duct, it is jeopardized if the surgeon is required to split the duct near its mouth. In one case in which I operated, this artery was larger than the ordinary radial artery.

More important is the not rare condition in which the hepatic artery is small or is absent, and the cystic artery—one or both branches—carries on its function of nourishing the liver. In such case ligation of the cystic artery, as ordinarily performed, will bring about acute atrophy of the liver with generally fatal result.

For several years I have taken the precaution to feel for the pulsation of the hepatic artery along the hepaticus, and if it is absent, take pains to preserve the cystic artery.

Statutory Exemption of Religious Healers—"Most of the acts regulating the occupation of healing the sick contain provisions for exempting from their scope the practice of religious tenets or the beliefs of ministrations of any church. Many of these exemptions are illogical, ill-founded in necessity, and offensive to one's sense of substantial justice," says H. E. Kelly of the Chicago bar, in an excellent dissertation on the regulation by law of the occupation of healing diseases of human beings (Federation Bulletin). "If they go merely to the exemption of the free exercise and enjoyment of religious profession or worship under the constitution they are unnecessary, because such constitutional rights prevail regardless of statutory enactments. Most of these provisions undoubtedly are inserted because those who promote them know that their alleged religious exercises are not protected by the constitution as the enjoyment of religious profession or worship."

THE IMPORTANCE OF EARLY DIAGNOSIS IN OXYCEPHALY AND ALLIED CRANIAL DEFORMITIES, WITH REFERENCE TO THE PREVENTION OF BLINDNESS AND OTHER SEQUELAE *

By HAROLD K. FABER, M. D.,
(From the Department of Pediatrics, Stanford University Medical School, San Francisco)

True synostosis of the coronal sutures does not normally occur until advanced adult life.

Cranial deformity appears to be the mechanical resultant of the growth and expansion of the brain acting upon a skull which can expand only in certain directions.

The origin of the condition is probably a profound defect of the germ plasm.

It is difficult to tell in what proportion of cases blindness occurs.

Treatment, when attempted, has been entirely surgical.

It is expected that, in the near future, preventive operations will be performed on two of our patients, and the results reported.

There is a very curious group of deformities of the skull, due to partial or complete absence of one or more cranial sutures. Of these cases, the best known are those with the so-called tower skull, but this is merely the most marked and characteristic, probably not the most common malformation. These cases are not very rare. During the last two years five or six cases of cranial deformity, due to suture defects, have been recognized in the children's services of Stanford Hospital and Clinic. Consideration of the problems which they have presented has led me to believe that they are of importance, not merely as curiosities of development, but because they present definite potentialities, at present undeveloped; of prevention of blindness, mental backwardness, convulsive attacks, severe and persistent headache, other sequelae of increased intracranial pressure, and severe cosmetic handicap.

True synostosis of the coronal sutures does not normally occur until advanced adult life. The sagittal may close early without causing deformity, but not commonly. In the condition here discussed, the normal suture line is wholly or partly obliterated, the development of the bones follows an abnormal course, and the growth of the skull is deflected by compensatory overgrowth of those portions where the sutures remain open. Thus, if one coronal suture or one-half of the lambdoidal suture is closed, the skull becomes lopsided, with its longest diameter oblique instead of antero-posterior. If both coronals are closed the head becomes brachycephalic, with its antero-posterior diameter shortened. With the sagittal closed, the head becomes long, narrow, boat-shaped, with a peculiar occipital overhang which is quite characteristic. With both halves of the lambdoid closed, the head becomes broad in front and narrow behind. When both the coronal and the sagittal sutures are closed, the head becomes high and tower-shaped by growth upward. In such cases the cranial deformity appears to be the mechanical resultant of the growth and expansion of the brain acting upon a skull which can expand only in cer-

* Read before the Section of Pediatrics at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May 13, 1924.

tain directions. When brain growth is more rapid than the capacity of the skull to expand, effects of pressure begin to show: on the inner table of the skull, which becomes thinned in places, causing remarkable abnormalities in the roentgenogram (digital impressions—thumb-marks); later, or simultaneously, by changes in the optic nerve leading to atrophy; in some cases (probably often) by atrophic changes in the brain; sometimes by severe headaches; occasionally by convulsions.

ETIOLOGY

The origin of the condition is probably a profound defect of the germ plasm. The older explanations of meningitis, rickets, and syphilis are no longer tenable. The exhaustive study of Park and Powers has shown with great probability that the defects must reside in the blastemal skeleton, in which anlage for the separation of bone from bone are absent, not only in the skull, but sometimes in the phalanges of hand and foot and in the elbows. More recently, Gänsslen and others have shown that tower skull is found in a large percentage of patients with hereditary hemolytic jaundice, indicating another mesenchymal abnormality. Rieping and others have noted a displacement of the centers of ossification of the skull, so that the frontal or parietal bosses may be situated at or near the normal suture line. Rieping's study of a decalcified skull shows quite clearly this displacement.

SYMPTOMATOLOGY

Fletcher divides the cases clinically into three groups: those with evident defects at birth; those whose deformity becomes noticeable in the first few months of life; and those who appear to be normal for a few years and then show symptoms, usually visual.

To the first group belong those with severe deformities frequently involving, not only the head, but also the extremities. The head is misshapen, the eyes bulge from the orbits, symmetrical syndactylism of fingers and toes, and sometimes synsotosis of the humerus and ulna are present. In our case (Baby D.), the optic nerves were already atrophic. At first glance the condition may be confused with hydrocephalus.

To the second group belong cases Dg. and Chr. Both of these were in other respects healthy babies. In the first case (Dg.) the mother had noticed soon after birth that the head apparently turned to the right, and she feared that wry-neck was present. Careful inspection and examination showed that the sterno-mastoids were normal, that the facial plane was skewed to the right by an unequal growth of the two sides of the skull, and the x-ray showed that the left coronal suture was closed. In the second case (Chr.) the mother had not observed the deformity, and indeed it might have been overlooked altogether at first, had we not been examining all our babies with this point in mind. The head, as viewed from above, was broad in front, tapering behind to a rough triangle, with marked flattening of the parietal regions. In this case the x-ray showed partial closure of the sagittal and lambdoid sutures, and perhaps of the left coronal as well. The nerve heads in both fundi in both these cases were normal, and there were no signs of increased intracranial pressure. In both the deformity is generally increasing, though the only thing to make the mothers anxious at present is the peculiar appearance. The last two cases belong to the third group. In the first, F. S., a patient of Dr. Hans Barkan, a slight external strabismus had been noted in infancy, but no further relevant symptoms until the age of 7 years, when his eyesight began to fail. It is noteworthy that the deformity of head had not been observed until the patient was admitted to Lane Hospital some six months later. At this time the increased height of the head was noted, and at the bregma a depression, behind which a short but marked transverse ridge could be felt. Optic atrophy was marked and there were some changes in the choroid as well. A subtemporal decompression was done by Dr. E. B. Towne, and four months later the color of the discs was found by Dr. Barkan to be slightly but definitely pinker than before, and the vision was possibly slightly improved.

W. M., a boy of twelve years, the last of the present series, and in some respects the most striking, had escaped diagnosis for several years, though he had been seen by several physicians. Proptosis of the eyeballs had been noted three years ago. He was sent to the Children's Clinic for a mental rating—he had been backward in his studies—and was recognized at once as having advanced oxycephaly. The fundi were quite normal. During his stay in the hospital he had a well-marked epileptiform convulsion, which was observed and described by a member of the house staff, and further questioning showed that he had had several preceding attacks. The x-ray here showed extreme convolutional atrophy of the inner table (digital markings), closure of the frontal and lambdoid sutures, but the sagittal suture was still partly open, though its edges were markedly thickened. The boy was four years mentally retarded, and was classed as a moron. It seems likely that the open sagittal suture in this case has been a sufficient safety valve to protect his eyesight, but since he is still growing, and since the suture is evidently beginning to close, his chances of blindness within a comparatively short period appear to be high.

It is difficult to tell in what proportion of cases blindness occurs, since few of these patients come to a doctor excepting for impaired vision. It is probably conservative to state that 50 per cent of cases of synostotic cranial deformity become blind sooner or later.

There are, undoubtedly, certain cases of abnormal synostosis of cranial sutures in which blindness does not occur, and in which the only untoward effects are cosmetic. Is there a particular type which is more apt than others to undergo optic nerve destruction?

Weiss and Brugger, from a study of a few museum skulls of the oxycephalic type, state that closure of the coronal sutures is constant and characteristic. Enslin, in his series of living subjects (all blind), tried to determine by palpation which

sutures were closed. In a well-marked case, a ridge can be felt along the closed suture line. The following table is from his data:

Coronals alone	2 cases
Coronals and sagittal	7 cases
Coronals probably, sagittal certainly	6 cases
Coronals, sagittal and lambdoid	1 case
Sagittal only	4 cases
	20 cases
Coronals certainly or probably	16 cases
Sagittals certainly or probably	18 cases

Without x-ray studies, which unfortunately have not been reported in detail until recently, it is impossible to tell the entire extent of closure of the sutures in a given case. It is probable that coronal closure is of more serious consequence and a more reliable guide in diagnosis than closure of the sagittal suture, since Bolk has shown that the latter occurs unassociated with deformity in a small percentage of normal individuals during early childhood, while coronal closure is so rare as to be classed as a definite abnormality. One may perhaps fairly say that in any case where premature closure of sutures has caused notable deformity of the skull, there is a high degree of ultimate danger to the optic nerve and probably to the brain as well. It is noteworthy in the reports of Enslin, Meltzer, and others that blindness has not been confined to a single type of deformity, but has occurred in scaphocephaly, brachycephaly, oxycephaly, and other rarer types.

TREATMENT

Treatment, when attempted, has been entirely surgical and, so far as I have been able to find in the literature, always palliative, never preventive. The utmost that has been accomplished by the former has been relief of pressure symptoms, such as headache, and very slight improvement in vision. In most cases operated upon, vision has not improved, since destruction of the nerve has already occurred. In Dr. Barkan's case, above mentioned, in which Dr. Towne did a subtemporal decompression, the discs some three months later were pinker than before, but vision had not measurably improved. This is as much as can perhaps be expected in cases where atrophy is already present.

In considering the pathology of the condition and the bad prognosis for sight, I have been strongly impressed with the possibilities of prevention, up to the present hardly mentioned in the literature. Here we have a condition with physical signs so striking that early diagnosis is extremely easy, and we have a mechanical abnormality which would appear to lend itself readily to surgical correction before secondary damage to the nervous structures has occurred. A tabulation from Meltzer's twenty cases will serve for illustration.

	Deformity first noted	Blindness first noted
At birth	13 cases	1 case
During first year	7 cases	1 case
During second year		1 case
During third year		10 cases
During fourth year		3 cases
During fifth year		1 case
During sixth year		3 cases

From these figures it is clear that the deformity was noted in most cases long before blindness occurred, and that if effective preventive measures were available there was plenty of time for their employment, provided correct diagnosis of the deformity had been made.

If preventive surgery is to be employed, clear indications should be formulated. We are not yet in a position to do this in all cases. There are certain borderline deformities, especially those resulting from the closure of single sutures, which probably do not lead to nervous sequelae. Definite premature closure of the coronal sutures and definite premature closure of the sagittal suture with marked deformity may be regarded as of serious import. Proptosis of the eyeballs, bulging of the temples, thinning of the cranial bones (digital impressions) in the x-ray, beginning optic papillitis, restriction of the visual fields, convulsions, severe headaches, or other symptoms of increased intracranial pressure should be regarded as warnings in varying degrees of imminent or ultimate blindness and, provided suitable surgical measures are available, as indications for preventive operation.

Not being a surgeon, I do not wish to advocate any particular type of operation. Callosal puncture, subtemporal decompression, and widening of the optic foramen are the chief operations which have been used. The first is not, I think, at present in use for this condition. The second has been advocated by Sharpe and others, and appears to afford relief from intracranial pressure. The last, used by Schloffer, Hildebrand, and others is based on a conception of the pathology—constriction of the nerve in the optic foramen—which many writers do not regard as correct. Here are many indubitable evidences in so many cases of increased intracranial pressure that it seems reasonable to infer that this is the cause of the injury to the optic nerve. If such is the case, decompression would appear to be correct in principle both for palliation and for prevention.

I venture to suggest to the consideration of surgeons a revival of the operation of linear craniectomy, devised by Lannelongue, in 1890, for the relief of microcephalus, and abandoned when the pathology of that condition was clearly recognized as being primarily a defect of the brain rather than of the brain case. In deformities from synostosis, however, the reverse holds true; the brain is in nearly all cases primarily normal, and the observed untoward effects come from the pressure of its growth on a comparatively rigid skull. These effects consist not only of serious damage to the contained enclosed nervous structures, but also of a severe cosmetic handicap. The appearance of many of these patients is very freaky indeed. It would seem that a linear craniectomy along the normal site of the synostosed suture or sutures, done early in life, might not only prevent damage to the brain and the cranial nerves, but also might permit the growth of the skull to proceed in an approximately normal fashion.

It is expected that, in the near future, preventive operations will be performed at Lane Hospital on two of our patients, and the results reported.

Lane Hospital.

DISCUSSION

Clifford D. Sweet, M. D. (440 Seventeenth Street, Oakland)—I feel that Doctor Faber has called our

attention to a very important condition in children. Its early recognition may well save some child from becoming a hopeless invalid. I had not recognized the condition previously and can recall only one case that probably presented this condition.

E. B. Towne, M. D. (Stanford University Medical School, San Francisco)—I have seen most of Dr. Faber's patients and am convinced that his plan of preventive surgery offers an excellent prospect of success. The blindness which invariably occurs in these cases is due to atrophy of the optic nerve head following an optic neuritis, and nothing can be done to improve the vision when it reaches this stage. Therefore surgical procedure should be undertaken as soon as the deformity and the X-ray studies make the diagnosis. The Lannelongue operation of linear craniectomy, which Dr. Faber proposes, would seem to be ideal. It should be a simple and fairly safe procedure to make artificial suture lines to any extent desirable in a given case. If this conception of the pathology is correct, one would expect that the growing brain would spread these new sutures, and that closure would not occur until the brain had reached its maximum growth. We hope to carry out this procedure on two of Dr. Faber's patients. One of them (W. M.) is 12 years old, and I have some doubt whether the bones of his skull are soft enough to give to the pressure of the growing brain after linear craniectomy; but the other (Chr.) is an infant and is a perfect case to prove the value of the operation. If this baby escapes blindness, the importance of this work of Dr. Faber's will be strikingly established.

William Palmer Lucas, M. D. (University of California Medical School, San Francisco)—Doctor Faber's paper is an excellent presentation emphasizing the importance of making an early diagnosis of oxycephaly. Every institution for the defective where these cases are sooner or later sent shows the frequency with which blindness, either completely or partially, occurs, so that any form of treatment that may have an effect on limiting the extent of blindness or preventing it should be very carefully considered.

In our experience, blindness may occur even when the sutures are not closed. Undoubtedly the injury to the optic nerve may occur even when the sutures are open, so that the pressure on the optic nerve is not entirely relieved by open sutures. Unquestionably the operation for relieving pressure, which Doctor Faber suggested, should be tried, but if it is to be performed it should be done in early infancy. If blindness begins before the sagittal sutures close, little can be expected from operations which allow for increased cranial pressure.

Early diagnosis and early operation may prevent blindness, and anything that holds this hope should be given a good trial.

Doctor Faber (closing)—It is possible that other factors, such as deformation of the optic foramen or of the orbit, may occasionally play a part in producing blindness; in such cases the Schloffer operation may be preferable. My impression is that they are exceptional. The evidences of increased intracranial pressure, past or present, are clear in most cases, and are perhaps most strikingly shown by the skull plates, which display a depth of convolutional markings seen in no other condition. In several instances, including Von Graefe's first case, seen early, choked disk has been demonstrated.

Lead Poisoning—A large number of cases of lead poisoning have been referred to the Industrial Accident Commission during the past two years. During the first five months of this year, approximately one hundred cases were reviewed and compensation was awarded in varying amounts. Practically all cases reported were due to exposure to lead fumes resulting from the use of oxyacetylene flame in the cutting of plates taken from warships during demolition. The Commission has undertaken the elimination of lead poisoning cases, and good results have already been reported from those industries affected.—California Safety News.

VINCENT'S DISEASE AND PARASYPHILIS, WITH REPORT OF A FATAL CASE

By F. F. GUNDRUM, M. D., Sacramento

ORGANISM

Brief history of the disease and its cause. Symptoms, pathology, and treatment.

For references to authors or subjects, see Index Medicus or Quarterly Cumulative Index of the A. M. A.

Discussion *by George Piness, Los Angeles; Joseph M. King, Los Angeles; and William J. Kerr, San Francisco.*

The organism of Vincent's disease was first described by Miller, an American dentist, in 1883; later Rauchfuss corroborated him in 1893, but received little attention. A more notable contribution, by Plaut, appeared in 1894. In 1896 Vincent wrote several extensive articles describing this bacterium which has since been known by his name. The organism occurs in two forms, spindle-shaped rods and spirilla, originally supposed to be an example of symbosis, but now recognized as two forms of the same microbe. The geographical distribution is very wide, cases having been described in Europe, Asia, Africa, and America.

NATURAL HABITAT

The natural habitat outside the body is not certain. It is frequently found without any evidence of pathogenicity to the carrier, in tonsillar crypts, about the tartar of teeth and in the preputial sac.

SPECIAL SUSCEPTIBILITY AND PREDISPOSING FACTORS

The factors which convert this apparently harmless mucous membrane dweller into a pathogenic agent capable of marked damage may be either microbic, affecting the parasite (and of these we know very little) or constitutional, affecting the host. Of the latter, diet deficiencies have been mentioned more than once, the use of tobacco, traumas and the incidence of other contagious diseases such as measles, also appear in the literature. That there may be developed an organism with exalted virulence seems likely from the report by Frazier of an epidemic at Baylor College, Texas, where sixty-seven cases occurred in ten days, one associated with a scarlatinaform rash.

SITES OF INFECTION

The sites of infection are extremely varied. The most common is in the mouth about the gingival margins and festoons. Next most frequent, the tonsils, pharynx, and nasopharynx. In the nasal cavities the disease has become malignant and produced fatal noma. Palatal infections may result in perforation, leaving a scar much resembling a healed gumma, described by Barker and Miller. The middle ear and external auditory canal are not uncommonly invaded. Adam, in 1916, reported sixteen such instances, fifteen being children. Cheattle also reports ear infections. The tonsillar form was formerly known, by the members of the "old school" at least, as "homeopathic diphtheria" because of its relatively benign course and resistance to antitoxin. Vincent's disease may become established upon the mucous membrane of the respiratory tract, producing the physical signs of bronchopneumonia, extremely

resistant to ordinary treatment and unrecognizable except through microscopical sputum examination. The organism frequently invades industrial wounds and more frequently still, military wounds. Indeed, Vincent's original studies were done in the French army hospitals, where he was able to show the same microbe in the discharge of gangrenous wounds and in the throat of certain of the anginas. The genitalia are somewhat less commonly, but still not infrequently, the site of invasion. Barker, Bond, and others mention the primary ulcer upon the penis. Barker also quotes Noguchi as having found it in ulcers of the labia and gangrene of the vulva and perineum.

CLINICAL SYMPTOMATOLOGY AND PATHOLOGY

The primary locus of infection by Vincent's organism consists of an ulcer (small or large) whose surface is covered with a whitish, yellowish, brownish, or blackish membrane, the removal of which leaves a raw, bleeding surface, quickly re-covered by membrane if undisturbed. There may be considerable surrounding edema. In the mild cases the organism remains at the local ulcer, but under conditions favorable to its invasion the regional lymph nodes become enlarged and tender, though never suppurate. The greater number of patients suffer no further inconvenience than this, although in certain unusual instances the spirillum escapes from the lymph nodes and invades the blood stream, producing, though rarely, as shown by Larsen and Barton in 1913, a true spirillaemia, they having been able to demonstrate it in the blood stream shortly before the death of one of their patients. In the non-fatal instances of generalized spirillosis, quite severe general symptoms manifest themselves; tachycardia, thirst, prostration, and particularly a series of rashes; first described by Simonin, in 1901, and of which more later. The blood picture in general spirillosis has been described by Tarnow at some length in 1921. He found no marked change, though Peter noted eosinophilia. Tixier and Tobe also record nephritis, enteritis, pericarditis, and pneumonia as complications.

FATAL CASES

Infections with Vincent's organism, while usually painful and unpleasant, are not ordinarily very dangerous. This is not the universal rule. Mention of fatal cases has occasionally appeared in the literature. Somewhat detailed accounts having been offered by Greely, who described his own case, and Husik, who gives his own and quotes Bruce, Meyers, Halstead, and Theisen, who have had other fatalities. Our own experience is as follows:

Male, age 50. Complaint—Sore mouth of two years' duration. "Had one hundred doctors and one hundred dentists," all sorts of treatment, including some sort of intravenous injection; gets better and worse, few days at a time. A year ago a dental surgeon removed the left submaxillary salivary gland with some benefit. Pain in the mouth is very severe. There is no bleeding; there is considerable pain in the stomach about one and one-half hours after eating. The course has been gradually downward. Present weight, 123 pounds. Height, 5 feet 10 inches.

Past History—Questionable venereal sore at the age of 17; no secondary. Three months in a TB sanitarium ten years ago.

Family History—Three children living and well. Wife, living and well.

Examination shows: Emaciated man, tongue and mucous membrane is vivid red color with many whitish elevated mossy plaques, varying in size from a pea to a nickel. Similar filter-paperlike collars encircle the few remaining teeth. Smear showed many bacterial types with fusiform bacilli and spirilli. Treatment with iodine locally and internally was useless, as was also arsenic treatment, instituted later. General physical examination showed only an old TBC scar in the apex. Patient drifted from bad to worse and died apparently from exhaustion.

RASHES

The association of skin rashes with spirillosis was first described by Simonin, in 1901. He noted five of his own and three others from the literature. Of these eight cases, one presented a scarlatinaform, two purpura, and three erythema multiforme-like lesions. The great war was accompanied by a very large increase in instances of spirillosis, and in 1918 Tixier and Tobe published a more extensive description of this malady, including the skin complications which were described as morbilliform, scarlatinaform, varicelliform, polymorphous, bullous, and erythematous. The last of much less gravity than the others, which, especially the bullous form, were evidence of a most grave outlook. Nolf, Colard, and Spehl note two cases of Vincent's angina with eruption, and Frasier, in describing the epidemic at Baylor College, states that one student had a scarlatinaform rash. Our experience with rashes in spirillosis is limited to the following case:

Male, 45, married; two healthy children. Patient has been working with a hay-baling crew traveling about the country. No known exposure to venereal disease, and practically no opportunity on account of the nature of the work and the environment. Three weeks before he had noticed a small sore spot on the right side of the penis about one-half inch from the base. This spot became rapidly more painful and soon developed a dirty whitish scab, which left a bleeding surface upon being removed. There was some swelling and tenderness of the regional lymph nodes. Patient returned home and went to bed, where he was seen by his family physician, who made a smear of the exudate and recognized the characteristic bacilli and spirilli of Vincent. The patient had a temperature running from 101 to 103.5, great prostration, and four days later began to exhibit a widely disseminated maculopapular rash very similar to measles. Blood Wassermann was negative. The patient was given three intravenous injections of neosalvarsan at two-day intervals without any improvement. The local application of arsenical solution and silver nitrate proved useless. At this time the condition was as follows:

At the base of the penis, on the right side, there was a shallow ulcer, roughly 3 x 4 cm., covered with a grayish exudate whose removal produced bleeding; inguinal lymph glands were enlarged. The entire body was covered with a pink maculo-papular rash, not sharply outlined, in places tending to confluence. Otherwise, physical examination not remarkable. Smear from ulcer on penis showed Vincent's organism in large numbers. On account of the failure of arsenic, this patient was given a local compress of weak watery solution of tincture of iodine and 20 grains of potassium iodide internally every four hours. Symptoms disappeared in about six days. Four months later this man had had no recurrence, and his blood Wassermann was negative.

PARASYPHILIS

Patients, such as this one last described, frequently show a positive Wassermann reaction. Given a patient with a crusted ulcer (even though it be tonsillar, as is most commonly the case) a macular rash, regional adenopathy, and a positive Wassermann, very little doubt would enter the mind of the average clinician as to the syphilitic nature of the infection. During the great war, with

the increase of spirillosis then observed, these cases, associated with rash, became not unusual, and Carl Stern published a description of such a group where accurate diagnosis became extremely important because of social, marital, and familial relations. The symptom complex described by him consisted of a tonsillar primary lesion covered with an exudate, a skin rash, usually macular or morbilliform, with a positive Wassermann, rapidly and completely cured with a single injection of salvarsan without subsequent syphilitic residual symptoms or positive blood reaction. Stern failed to connect Vincent's organism with this syndrome, and called it "parasyphilis."

In 1921 Von Lunenborg expressed the opinion that Stern's parasyphilis was the result of infection with some of the numerous mouth spirochaete and attributed the great frequency during and since the war to trench life and poor nourishment. Wolfheim and Spiegelborg, separately, in September, 1921, described additional examples of parasyphilis in which Vincent's organism was found and which was considered causative by both.

TREATMENT

Treatment may be both local and general. Local is, of course, all that is required in the majority of cases where no general invasion takes place. Medicaments have been quite various, though arsenic, in the form of Fowler's solution, salvarsan, neosalvarsan, silver arsphenamine in powder, in watery solution or glycerine, have been most commonly advised. King reports excellent results from the use of 10 per cent copper sulphate solution; Buschman used trypaflavin; Waite, sodium perborate; Castorina, postassium tartrobismuthate; and Jelinek, local freezing.

When marked lymphadenopathy is present, general treatment becomes imperative. Here two drugs stand out most useful. They are iodides and arsenic in the form of neosalvarsan. In our experience, perhaps 70 per cent will clear up quite promptly under the oral administration of sodium iodide 15 grains three times a day. Those unimproved by iodide solution show speedy improvement under arsenic therapy, and the reverse is also true. There appears to be a curious chemiotropic difference so clear-cut as almost to justify clinical division into two strains. Those which are susceptible to iodides seem to predominate, though possibly this opinion may have arisen from the habit of giving iodides first. We have seen repeatedly infections resistant to iodide yield to arsenic and infections unimproved by arsenic get well under iodine.

Capital National Bank Building.

George Piness, M. D. (1136 West Sixth Street, Los Angeles)—The paper presented by Doctor Gundrum was particularly interesting to me from the standpoint of bronchial infection due to Vincent's disease. In a study of a great many cases of bronchial asthma and asthmatic bronchitis of the non-sensitive type, when not sensitive to proteins, we have been able to find in the sputums of about seven individuals a typical Vincent's infection. The specimens show the typical infection of Vincent's disease, namely, fusiform bacilli, cocci, and spirillum. My treatment in this type of individual is to give small doses of neosalvarsan, ranging from 0.1 cc. to 0.2 cc. at three-day intervals over a period of several weeks, and the oral administration of sodium iodide in small doses. In conjunction with this, frequent examination of deep bronchial secretions are made to determine whether or not the infection has cleared up. The results in the majority of cases are very good.

Joseph M. King (Brockman Building, Los Angeles)—In many cases of mouth and throat infection in which we suspect diphtheria but get a negative laboratory report, a smear will show Vincent's organism, but the majority of these cases go unrecognized because the physician is not looking for them, as it is through the stained smear rather than by means of the culture that the diagnosis is made.

The majority of cases of Vincent's angina run a mild course and tend to recover under the application of almost any local antiseptic, but it is important for us to use some one of these antiseptics, for I believe that, without their use, cases which would otherwise tend to become severe are aborted. Personally, I have found a fresh solution of neosalvarsan, in the strength of 0.15 grammes to 10 cc. of distilled water the best local application, and I usually give moderate doses of the iodides internally. Under this treatment the great majority of cases yield promptly. A few cases, however, such as the one Dr. Gundrum reports, particularly where not recognized and treated early, run a very severe course and are intractible to any form of treatment. Salvarsan or neosalvarsan intravenously, while seeming to be the drug of greatest benefit, is by no means always curative, as evidenced by the case which Dr. Gundrum has just reported. In a somewhat similar case which I presented before this Section in 1918, a report of which appears in the July number of the state journal of that year, several doses were given without any seeming benefit, the case going to a fatal termination.

Dr. William J. Kerr, M. D. (University of California Hospital, San Francisco)—This paper by Dr. Gundrum on the subject of Vincent's infection is very timely, in view of the experiences during the war and the widespread infection which has resulted from exposure at that time. There has apparently been an increase in the number of cases that are recognized as Vincent's infection. These include cases of infection around the teeth, infections of the throat, probable infections of the respiratory tract, and other infections of a more general nature. Dr. Gundrum has emphasized the seriousness of some of these cases and the possibility of death from Vincent's infection.

I was much interested to hear about the skin rashes which may occur in Vincent's infection, as I have personally seen three such cases during the past ten years. There was some doubt at the time whether they could be associated with Vincent's infection, but I now feel convinced that they must be a part of the clinical picture in a limited number of cases. The rashes that I have seen varied from a scarlatinaform rash to a macular rash resembling measles, and in one case there was a rash of a maculopapular character. They all cleared up rapidly on recovery from the infection. I have been particularly interested in a number of cases of acute leukemia where the early manifestations of disease were in the pharynx and gums. In some of these cases Vincent's organisms were found and at first were thought to be Vincent's angina. However, the blood picture and the acute leukemia with death made it impossible to say whether the leukemia was a result of Vincent's infection or whether the Vincent's organisms were merely a secondary infection in a badly diseased mouth. In one or two cases of acute leukemia Vincent's organisms were not found.

In regard to the treatment of Vincent's infection, I have found, in my own experience, that neoarsenphenolamin given in doses of .4 to .6 of a gram intravenously is very efficacious in those cases involving the throat. In cases where the infection is limited to the gums and around the teeth the results are not so satisfactory. Sometimes the application of powdered neoarsenphenolamin or the use of concentrated solutions locally are of value. Iodines also seem to have some value, but not to the same degree as neoarsenphenolamin. It should be borne in mind that in conditions of the throat that are suspected of diphtheria and no diphtheroid organisms are found, we should always make smears for the presence of Vincent's infection.

The public does not take the science of medicine seriously, and probably never will do so; but please get this idea clear, they take **you** seriously, and very seriously at that. And why shouldn't they? Even a dog knows his friend.—Texas State Journal Medicine.

A PLEA IN FAVOR OF A STANDARDIZED WASSERMANN TEST *

By E. H. RUEDIGER, M. D., Angelus Hospital, Los Angeles

A standard method should be very sensitive, simple, quantitative, free from irregularities and unknowns.

In order to get more uniform results, and in order to keep worthless literature on this subject out of our medical journals, we must adopt a good method as a standard.

Discussion *by Walter V. Brem, Los Angeles; M. C. Terry, Los Angeles; R. A. Kilduffe, Los Angeles; G. F. Ruediger, Pasadena; Paul A. Mader, Los Angeles; Wilfred H. Kellogg, Berkeley.*

Standardization of the Wassermann test has been urged for several years, but very little has been done toward adopting any one method as a standard. Because of the lack of a standard method, many different methods are still in use, and the results from different laboratories do not agree as often as they should. New and frequently inferior methods are proposed from time to time which are not worth publication and perhaps would not be published if there were a standard of comparison.

A standard method should be very sensitive, simple, quantitative, free from irregularities and unknowns. It should be sensitive, but must not give false positive results. After comparing nearly every proposed method with my method, I feel satisfied that my method is the most sensitive, simplest quantitative method free from irregularities and unknown quantities that has so far been proposed, and the following report shows the results obtained by comparing other methods with my method.

Technic of my Method—When scientifically accurate results are required, titration should be done with the precision method which has been fully described in a previous report. This report deals with routine method, and the routine method will be described.

Human Serum—All human serums and cerebro-spinal fluids are heated to from 55 degrees C. to 56 degrees C. for thirty minutes and are mixed with pure, sterilized glycerol so as to have a mixture which contains 50 per cent glycerol. The first dilution I usually make 1:4 by adding three parts of a mixture composed of one part of physiological (0.9 per cent) salt solution and two parts of glycerol to one part of human serum. (I mix 25 cc. of physiological salt solution with 50 cc. of glycerol, sterilize, and add 0.3 cc. of this diluted glycerol to every 0.1 cc. heated human serum or cerebro-spinal fluid. Glycerol so diluted is easily handled with a pipette, and the resulting solution of the human fluid is 1:4.) I prefer to heat the human fluid before it is mixed with the glycerol, but it makes no difference in the final results. Any further diluting is done with 50 per cent of glycerol in physiological salt solution.

Antigen — As so-called antigen I employ plain alcoholic extract of human heart muscle or of beef heart muscle, and use it in the optimum dilution and dose. This must be determined for each lot of antigen.

Complement Serum—All complement serums are selected. Each complement serum is quantitatively titrated against a known negative control serum and against a known positive control serum, and all complement serums that are not satisfactory are rejected.

Hemolytic System—The hemolytic system may be human or sheep. I use the human system simply because it is easier to get human corpuscles. In the precision method I use 1 hemolytic unit, and in the routine method I use 1.5 (1 5/10) hemolytic unit.

The Test—For the routine method, put six suitable test tubes into a suitable test-tube rack and designate them as tubes Nos. 1, 2, 3, 4, 5, and 6. Let tube No. 1 be the control tube, and tubes Nos. 2, 3, 4, 5, and 6 the antigen tubes. Into each of the tubes Nos. 3, 4, 5, and 6 put 0.2 cc. of 50 per cent solution of glycerol. Into each of the first two tubes put 0.2 cc. of human serum or cerebro-spinal fluid diluted 1:4; and into the third tube put 0.1 cc. of the human material diluted 1:4. Mix the contents of tube No. 3 and transfer 0.1 cc. to tube No. 4; mix and transfer 0.1 cc. to No. 5; mix and transfer 0.1 cc. to No. 6; mix and discard 0.1 cc. The dilutions will be as follows: Control tube 1:4, antigen tubes 1:4, 1:12, 1:36, 1:108, 1:324. These are the dilutions I usually employ, but other dilutions will answer the same purpose.

Add 0.2 cc. of physiological salt solution to the control tube and 0.2 cc. of diluted antigen to each antigen tube and shake. Add 0.2 cc. of complement serum diluted 1:7.5 to each tube, shake. Place all tubes in ice-cold water for five hours, shaking them well about two hours after they have been put into the cold water. Wash human blood corpuscles and make a 2.5 per cent (1:40) suspension of well-packed corpuscles in physiological salt solution. Use 0.2 cc. of the suspension as the test dose. Dilute the hemolytic amboceptor with physiological salt solution. Titrate the hemolytic system in the presence of 0.2 cc. of 50 per cent solution of glycerol per tube, and adjust it to one unit with 0.2 cc. of complement serum diluted 1:10.

At about thirty minutes before the hemolytic amboceptor and corpuscles are to be added to the test mix equal parts of diluted amboceptor and corpuscle suspension, shake well, put the mixture into the incubator at about 37 degrees C. for thirty minutes, shaking at intervals of about ten minutes.

Transfer the tubes from the cold water bath to a warm water bath at about 37 degrees C., and from five to ten minutes later add 0.4 cc. of amboceptor-corpuscle mixture to each tube. Return the tubes to the warm water for one hour, during which time they should be shaken at intervals of fifteen minutes. Remove the tubes from the warm water bath, let them stand at room temperature for about one hour, and read the results.

Reading Results—In reading results, complete inhibition of hemolysis in a tube is called 1+ or one unit fixation, and this is multiplied by the dilution of the human serum or cerebro-spinal fluid as is shown in Table No. A.

TABLE NO. A

No. of Serum	No. of Tube Dilution	1 1:4	2 1:4	3 1:12	4 1:36	5 1:108	6 1:324	Results
1	Readings	0	+	+	+	0	0	= 36+
2	Readings	0	+	+	+	+	0	= 108+
3	Readings	0	+	+	+	+	+	= 324+

If the last antigen tube does not show the limit

* Presented to the Section on Pathology and Bacteriology at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May, 1924.

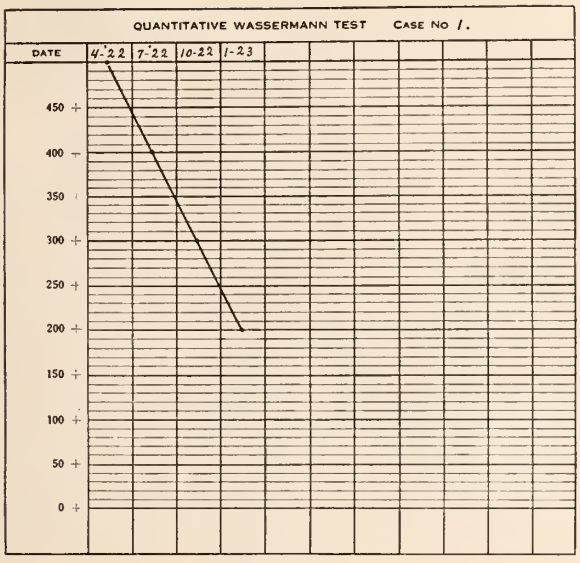

CHART 1

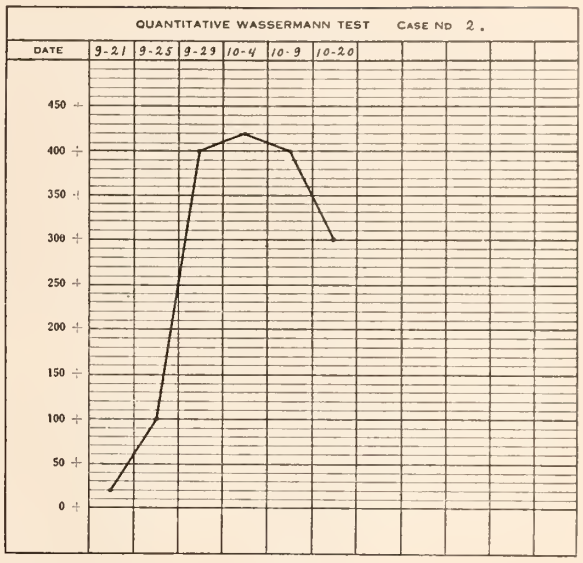

CHART 2

of fixation the material is titrated further, beginning with a higher dilution as shown in Table No. B.

TABLE NO. B

No. of Serum	No. of Tube Dilution	1 1:200	2 1:200	3 1:400	4 1:800	5 1:1600	6 1:3200	Results
1	Readings	0	+	+	0	0	0	= 400+
2	Readings	0	+	+	±	0	0	= 600+
3	Readings	0	+	+	+	+	0	=1600+

During the course of treatment quantitative Wassermann tests may be done at intervals of a few months, and the records may be kept in the form of curves as is shown in Charts Nos. 1 and 2.

I tested many serums by the Wassermann method and by my method, and found my method much more sensitive than the Wassermann method. My method was found to be approximately fifty times as sensitive. Some of the results are shown in Table No. 1.

TABLE NO. 1

No. of Serum	Results with Wassermann Method	Results with Ruediger Method
1	Negative	20+
2	4+	300+
3	2+	100+
4	Negative	40+
5	1+	50+

TEST NO. 2

Many serums were tested by the Herrold contact precipitation test and by my method, and I did not find the Herrold test any more sensitive than the Wassermann method, and found great difficulty in reading weakly positive results by the Herrold test. Table No. 2 shows some of the results obtained.

TABLE NO. 2

No. of Serum	Results with Herrold Test	Results with Ruediger Method
1	Negative	20+
2	++	100+
3	+++	200+
4	+++	300+
5	Negative	Negative
6	Negative	10+
7	Negative	20+
8	Negative	40+
9	+	40+
10	Negative	4+
11	Negative	20+
12	Negative	20+

TEST NO. 3

On many serums I compared my method with the method proposed by Kolmer. With the Kolmer method I used the same quantities of serum used in my method, and read results as I read them by my method. Having the cholesterinized antigen of Kolmer in the antigen tubes and nothing in the control tubes to balance the anti-complementary property of the cholesterin, a greater excess of complement had to be allowed to avoid false positive results. False positive results are apt to be obtained with cholesterinized antigen because the anti-complementary property of the antigen is not balanced in the control tubes.

According to my limited experience with the Kolmer method, my method usually gives much stronger positive results, but occasionally a serum may read as strongly by the Kolmer method as by my method. In a personal letter to me, Dr. Kolmer states that he finds my method five or six times as sensitive as his own method. Table No. 3 shows some of the results I obtained by comparing my method with the Kolmer method.

TABLE NO. 3

No. of Serum	Results with Kolmer Method	Results with Ruediger Method
1	Negative	4+
2	30+	80+
3	100+	200+
4	Negative	Negative
5	160+	400+
6	100+	100+
7	10+	20+
8	Negative	10+
9	20+	50+
10	Negative	6+

After having compared my method with other methods, I had the opportunity of comparing results with four different laboratories, all using other methods.

TEST NO. 4

Several serums were sent to Laboratory No. 1 and to me. Many disagreements were encountered in this series, as Table No. 4 shows.

TABLE NO 4

No. of Serum	Results from Lab. No. 1	Ruediger Results
1	Negative	Negative
2	Negative	Positive, 10+
3	Negative	Positive, 100+
4	Negative	Positive, 50+
5	Negative	Positive, 20+
6	Positive, 2+	Positive, 100+
7	Negative	Positive, 80+
8	Negative	Negative
9	Negative	Negative
10	Negative	Positive, 40+

Table No. 4 shows the results obtained on ten serums tested in Laboratory No. 1 and by myself. My method was approximately 100 times as sensitive as theirs. All of these serums, which gave positive results by my method, came from known syphilitic patients under treatment, and serums Nos. 3 and 6 came from the same patient three days apart.

TEST NO. 5

On 100 serums, I compared results with Laboratory No. 2. In this laboratory the Kolmer method was used, and the results obtained by Laboratory No. 2 and by myself are recorded in Table No. 5.

TABLE NO. 5

No. of Serum	Results by Laboratory No. 2	Results by Ruediger
1	4 4 4 0 0	Positive, 20+
2	Negative	Negative
3	4 4 4 0 0	Positive, 15+
4	4 4 4 4 4	Positive, 40+
5	Negative	Negative
6	Negative	Positive, 6+
7	Negative	Negative
8	Negative	Positive, 4+
9	4 4 4 4 0	Positive, 40+
10	4 4 4 0 0	Positive, 15+
11	4 4 4 0 0	Positive, 6+
12	Negative	Negative
13	Negative	Negative
14	4 4 4 4 4	Positive, 20+
15	4 4 4 4 4	Positive, 20+
16	Negative	Positive, 4+
17	Negative	Negative
18	Negative	Negative
19	4 4 4 4 4	Positive, 24+
20	4 4 4 4 4	Positive, 30+
21	Negative	Negative
22	2 2 0 0 0	Positive, 6+
23	2 0 0 0 0	Negative
24	Negative	Negative
25	Negative	Negative
26	4 4 4 4 4	Positive, 10+
27	Negative	Negative
28	1 4 4 0 0	Positive, 6+
29	Negative	Negative
30	Negative	Negative
31	Negative	Negative
32	Negative	Positive, 1+
33	Negative	Positive, 1+
34	2 2 1 0 0	Positive, 12+
35	Negative	Negative
36	Negative	Negative
37	Negative	Positive, 6+
38	Negative	Negative
39	4 4 1 0 0	Positive, 12+
40	Negative	Positive, 4+
41	Negative	Negative
42	0 1 1 0 0	Positive, 50+
43	Negative	Negative
44	Negative	Negative
45	Negative	Negative
46	Negative	Negative
47	4 4 4 200	Positive, 20+
48	Negative	Positive, 1+
49	Negative	Negative
50	Negative	Positive, 4+
51	Negative	Positive, 4+
52	Negative	Negative
53	Negative	Negative
54	Negative	Negative
55	Negative	Positive, 4+
56	Negative	Positive, 4+
57	4 4 4 4 0	Positive, 6+
58	Negative	Negative
59	Negative	Negative
60	4 4 4 4 4	Positive, 20+
61	Negative	Negative
62	Negative	Negative
63	4 4 4 3 0	Negative
64	Negative	Positive, 8+
65	Negative	Negative
66	Negative	Positive, 4+
67	Negative	Negative
68	Negative	Negative
69	3 3 2 0 0	Positive, 10+
70	4 4 4 1 0	Positive, 40+
71	Negative	Negative
72	Negative	Negative
73	4 4 4 4 4	Positive, 400+
74	4 4 4 4 4	Positive, 150+
75	4 4 4 4 4	Positive, 100+
76	Negative	Negative
77	Negative	Positive, 8+
78	Negative	Negative
79	4 4 4 0 0	Positive, 24+
80	Negative	Negative
81	Negative	Positive, 4+
82	Negative	Positive, 12+
83	Negative	Negative
84	Negative	Negative
85	0 1 3 1 0	Positive, 50+
86	Negative	Positive, 30+
87	Negative	Negative
88	Negative	Negative
89	Negative	Negative
90	Negative	Negative
91	Negative	Negative
92	4 4 4 4 4	Positive, 100+
93	Negative	Positive, 4+
94	Negative	Negative
95	Negative	Negative
96	4 4 4 1 0	Positive, 70+
97	Negative	Negative
98	Negative	Negative
99	4 4 4 0 0	Positive, 60+
100	Negative	Negative

Table No. 5 shows the results obtained by comparing my work with that of Laboratory No. 2. There was disagreement on 20 out of the 100 serums compared. Of these 20 serums, I reported positive results on 18, and Laboratory No. 2 reported negative results. On two serums, Serums Nos. 23 and 63, I reported negative results, and Laboratory No. 1 reported positive results. I can hardly believe that my Serum No. 63 was the same as their Serum No. 63. So far we have been unable to get a retest on this patient, and are left in doubt.

TEST NO. 6

With Laboratory No. 3, I compared fifty serums, the results of which are recorded in Table No. 6.

TABLE NO. 6

No. of Serum	Results by Laboratory No. 3	Results by Ruediger
1	Positive, ±	Negative
2	Negative	Negative
3	Negative	Negative
4	Negative	Negative
5	Negative	Negative
6	Negative	Negative
7	Positive, ±	Positive, 4+
8	Positive, 1+	Positive, 12+
9	Negative	Negative
10	Negative	Negative
11	Negative	Negative
12	Negative	Negative
13	Negative	Negative
14	Negative	Negative
15	Negative	Negative
16	Negative	Negative
17	Negative	Positive, 4+
18	Positive, 1+	Positive, 24+
19	Negative	Negative
20	Negative	Negative
21	Negative	Negative
22	Negative	Negative
23	Positive, 4+ at 1:5	Positive, 200+
24	Positive, 1+	Positive, 60+
25	Positive, 4+	Positive, 240+
26	Positive, 4+ at 1:7	Positive, 40+
27	Positive, 4+ at 1:10	Positive, 12+
28	Positive, 4+ at 1:10	Anticomplement'y
29	Positive, 4+ at 1:20	Positive, 60+
30	Positive, 4+ at 1:20	Positive, 100+
31	Positive, 4+ at 1:5	Positive, 40+
32	Positive, 4+ at 1:7	Positive, 40+
33	Positive, 4+ at 1:5	Positive, 24+
34	Negative	Negative
35	Negative	Negative
36	Negative	Negative
37	Negative	Negative
38	Positive, 1+	Positive, 16+
39	Negative	Negative
40	Negative	Negative
41	Negative	Negative
42	Positive, 1+	Positive, 12+
43	Positive, 1+	Positive, 8+
44	Positive, 4+	Positive, 16+
45	Negative	Negative
46	Negative	Negative
47	Negative	Negative
48	Negative	Negative
49	Negative	Negative
50	Negative	Negative

Table No. 6 shows the results on fifty serums compared with Laboratory No. 3. There were two disagreements in results, and one serum I found anti-complementary. Serum No. 1, Laboratory No. 3 reported weakly positive, ±, and I reported it negative; it came from a patient who was known to be syphilitic. Serum No. 17, Laboratory No. 3, reported negative, and I reported it positive, 4+. This serum came from a patient who was known

to be syphilitic. Ignoring the anti-complementary serum, we may claim 96 per cent agreement with two different methods done in two different laboratories.

TEST NO. 7

On fifty-six serums, I compared results with Laboratory No. 4. These results are recorded in Table 7.

TABLE NO. 7

No. of Serum	Results by Laboratory No. 4	Results by Ruediger
1	Negative	Negative
2	Positive, 4+	Positive, 100+
3	Negative	Negative
4	Negative	Negative
5	Negative	Negative
6	Negative	Negative
7	Positive, 4+	Positive, 500+
8	Negative	Negative
9	Positive, 3+	Positive, 40+
10	Negative	Negative
11	Negative	Negative
12	Negative	Negative
13	Negative	Negative
14	Negative	Negative
15	Negative	Negative
16	Negative	Negative
17	Negative	Negative
18	Negative	Negative
19	Negative	Negative
20	Negative	Negative
21	Negative	Negative
22	Positive, 4+	Positive, 100+
23	Negative	Negative
24	Negative	Negative
25	Negative	Negative
26	Positive, 4+	Positive, 36+
27	Negative	Negative
28	Negative	Negative
29	Negative	Negative
30	Negative	Negative
31	Negative	Negative
32	Negative	Negative
33	Positive, 1+	Negative
34	Negative	Negative
35	Negative	Negative
36	Negative	Negative
37	Positive, 1+	Positive, 12+
38	Positive, 1+	Positive, 12+
39	Positive, 4+	Positive, 45+
40	Negative	Negative
41	Positive, 3+	Positive, 12+
42	Positive, 4+	Positive, 40+
43	Positive, 4+	Positive, 50+
44	Negative	Negative
45	Negative	Negative
46	Negative	Negative
47	Negative	Positive, 4+
48	Negative	Negative
49	Negative	Negative
50	Positive, 3+	Positive 12+
51	Negative	Negative
52	Positive, 3+	Positive, 8+
53	Negative	Negative
54	Positive, 1+	Positive, 10+
55	Positive, 3+	Positive, 12+
56	Positive, 3+	Positive, 12+

In Table No. 7 are shown the results obtained by Laboratory No. 4 and by myself on fifty-six different human serums. There were only two disagreements. On Serum No. 33, Laboratory No. 4 reported "Positive, 1+," and I reported "Negative." On Serum No. 47, Laboratory No. 4 reported "Negative," and I reported "Positive, 4+." This serum came from a patient who is known to have syphilis. In this series we have 96.4 per cent agreement in reports from two different laboratories using different methods.

SUMMARY

The old-fashioned Wassermann test, the Herrold Ring or Contact Precipitation Test for Syphilis and the Kolmer modification of the Wassermann test were compared with my method by myself, and I found great disagreement in the results obtained. I found my method from fifty to one hundred times as sensitive as the old Wassermann test, from fifty to one hundred times as sensitive as the test proposed by Herrold, and from two to four times as sensitive as the Kolmer modification of the Wassermann test.

I compared results with four different laboratories, some in Los Angeles, California, and some elsewhere. Laboratory No. 1 used the old-fashioned Wassermann method but slightly modified, and reported negative results nearly every time when I reported less than 100+. Laboratory No. 2 reported positive results on 31 out of 100 serums in this series, and I reported positive results on 48 of the same 100 serums. On three of these I reported only 1+, which is really not worth mentioning.

Out of fifty serums, Laboratory No. 3 reported 19 positive, and I reported 18 positive. One of their positive serums I found strongly anti-complementary, one serum they reported weakly positive which I reported negative, and one serum they reported negative and I reported positive. With Laboratory No. 4, I had but slight disagreement. We compared results on 56 serums. Laboratory No. 4 reported positive results on 17, and I reported positive results on 17. On one serum they reported a positive result and I reported a negative result, and on another serum they reported a negative result and I reported a positive result.

In order to get more uniform results, and in order to keep worthless literature on this subject out of our medical journals, we must adopt a good method as a standard.

1925 Trinity Street.

DISCUSSION

Walter V. Brem, M. D. (Pacific Mutual Building, Los Angeles)—We took part in these comparative tests. If I am not mistaken, we are called Laboratory No. 3. Although we did not use the same method, our results agreed almost perfectly. We have been using our sensitive method for several years, have found it very satisfactory, and think that any less sensitive method may well be considered obsolete.

M. C. Terry, M. D. (Consolidated Building, Los Angeles) — Dr. Ruediger's plea for a standardized Wassermann test has interested all of us, I am sure, particularly those of us who are concerned with the performance of this test.

Dr. Ruediger may not have convinced us that the test he presents is destined to be the accepted standard, but at least he has shown us how to go about it to find such a standard; namely, original experimental departure from classic methods and then, when something hopeful appears, painstaking comparison of results in collaboration with other workers and with clinicians.

Dr. Ruediger's departures from older methods are three in number, I should say: (1) The introduction of quantitative measurement of reagin; (2) his method of reading the results of the test; and (3) his use of glycerol, particularly his inclusion of this reagent in his serum control tube.

Quantitative Wassermann determinations, by one means or another, we are all coming to or have already adopted. Ruediger's method in this respect seems to me very good, as it is not cumbersome and gives a quantitative reading right off without the necessity of a second set-up later in the day or next day. It is much like Kolmer's method in this respect, but seems rather simpler than Kolmer's.

Ruediger's way of reading his results is logical enough, but in such a comparative study as he has just reported is likely to be a little misleading. "Positive, 100 plus," after all, indicates no more than "four plus at 1:25," referring to serum No. 30, in Ruediger's series with Laboratory No. 3. The clinician, too, understands the four plus report readily

enough, and so in many cases does the patient, while a report of "100 plus" might be quite unnecessarily upsetting to both.

Ruediger's use of glycerol is extremely interesting. As I understand it, Dr. Ruediger uses glycerol because he finds he gets stronger reactions that way. In effect (as I see it, though Dr. Ruediger may have some other explanation), he uses glycerol instead of cholesterol to reinforce his plain antigen. For all I know, glycerol may be better for that purpose than cholesterol. I should like to know if Dr. Ruediger has made a separate study of that point. All I know about it myself is that glycerol is somewhat anti-complementary just as cholesterol is, and that, like cholesterol, it is also, in itself, a weak Wassermann antigen. I find that it is entirely possible to perform the Wassermann test after a fashion—not practical at all—with no other antigen than glycerol. Ruediger's control tube, therefore, instead of being a tube containing no antigen, is a tube containing a little antigen.

It would be interesting to know what per cent of sera Ruediger finds anti-complementary in the routine use of his method. I think it may not differ much from what the rest of us find, though I see the possibility, and serum No. 28, which Laboratory No. 3 found satisfactory and Ruediger found anti-complementary, may be a case in point.

Coming to that part of the author's paper in which he compares results with three other laboratories, it seems to me there is honor enough to go round for all four laboratories; 80 to 96 per cent of agreement is pretty good.

Of course, a real test of the superiority of Ruediger's method over those employed by other laboratories will require a larger series than the author has reported to us today and, particularly, a careful study of those cases in which Ruediger's results differ from those of the collaborating laboratories. In Ruediger's work with Laboratories No. 3 and No. 4, an effort was made to find out who was clinically right and who wrong in those cases in which results differed; but in the whole 106 cases there were only four such disagreements and, as it happens, the result of the investigation is almost exactly a stand-off: Ruediger missed one known and one probable syphilitic which Laboratory No. 3 and Laboratory No. 4, respectively, picked up, while Laboratories 3 and 4 each missed one known syphilitic which Ruediger picked up. This number of cases is too small to permit any conclusion as to superiority of method from the standpoint of reliability, which is the important thing.

Robert A. Kilduffe, M. D. (Hollingsworth Building, Los Angeles)—This paper is worthy of a far more extended discussion than is possible without undue encroachment upon the space available.

It is regrettable that the paper does not indicate in any way the preliminary investigations upon which the construction of the technic was based. It would be interesting, for example, to know why it is more advantageous to use complement in a dilution of 1:7.5 rather than 1:10 or 1:13.25, and it would be particularly interesting to know the data available to prove beyond doubt the absolute specificity under any and all circumstances of positive reactions obtained with a simple alcoholic extract as antigen, whether it be of normal or syphilitic heart. This has certainly not been accepted heretofore, and it seems reasonable that any method proffered as a standard should be accompanied by some details as to the reasons for its technical variations from others.

Tables of comparative results are robbed of much of their significance when there is no accompanying information whereby the correctness of the results may be judged. It is not possible to correctly estimate the true value of any method of complement fixation in syphilis unless the study is not only an extensive one but also conducted with the closest possible degree of clinical co-operation.

There is no question that an acceptable method should be a quantitative method, and it is quite possible that any method may be improved in delicacy by the absorption of natural hemolysins and the use of complement tested for fixability.

The question of specificity, however, is of paramount importance, particularly as so many clinicians rely entirely on the complement-fixation test as the sole means of diagnosing syphilis. Personally, I would be reluctant to take a plus one reaction with a simple alcoholic extract in the presence of one unit of complement and amboceptor as an invariable index of the presence of syphilitic reagin.

I am interested in the comparison with the method of Kolmer, as I had the pleasure of furnishing these sera to Dr. Ruediger.

Dr. Ruediger uses an anti-human system; Kolmer's method an anti-sheep. All of the sera, giving varying results with Dr. Ruediger's method, contained large amounts of natural anti-sheep amboceptor and, after absorption, all but three of these sera gave positive reactions of varying degree with Kolmer's test. Clinical data was not available in any of the three sera again negative to Kolmer's method.

In a communication to be published, it will be quantitative technic.

There now exists a record of over 70,000 strictly shown that the absorption of natural hemolysins is advantageous and increases the delicacy of Kolmer's comparative tests of Kolmer's method, in comparison with a large variety of technics by a large number of workers—some tending to be even hypercritical in their comparison—without clearly demonstrable false positive reactions. At least a comparable investigation by as many observers using as many varieties of technic in comparison with Dr. Ruediger's method is indicated before accepting, without question, the assumption that it is impossible for his method to give a false positive, and that it never misses a true positive.

Dr. Ruediger notes his trial of Kolmer's method, but as he used his own serum dilutions and his own method of reading results, what he really tried was Kolmer's antigen with portions of Ruediger's technic. You cannot try any man's method unless you adhere strictly to the technic as described; otherwise, you are trying a hybrid, something which is a combination of his method and your own arbitrary variations from it.

I believe the specificity of the reaction to be of at least equal value with delicacy. It would be relatively easy to devise a technic which would give none but true positives—but it would not be delicate; or one which would be extremely delicate—but it would give false positives. The middle ground is the safest as long as the main burden of diagnosis is to be thrown on the complement-fixation test in a large proportion of cases.

Gustav F. Ruediger, M. D. (Citizens' Bank Building, Pasadena)—I have used Dr. E. H. Ruediger's method on more than fifty bloods, running the tests parallel with those by another method, and find it very sensitive but not liable to give false positives. On several cases my old method gave a negative result, whereas this method gave a clean-cut positive. One of these cases was an old syphilitic who had been under treatment several years ago and who now had attacks of dizziness caused by high blood pressure. The other was a man who had a suspicious sore nearly a year ago, at which time he received some anti-syphilitic treatment. He had recently had two other negative Wassermann reactions, but this method gave a weakly positive. I find the method easy of manipulation in the laboratory and far more sensitive than most of the other methods, including the method of Kolmer.

Mr. Paul A. Mader, B. S. (Angelus Hospital, Los Angeles)—I have been doing Wassermann tests for several years, and have used several different methods. Some of these methods were simple and quite easily learned, while others were complicated. None gave uniform and accurately measured results. Dur-

ing the last few months, I have been using the method just described by Dr. Ruediger and find it superior to all other methods I am familiar with. Selection of complement serum is absolutely necessary if uniform results are desired. The so-called catalytic agents are moderately anti-complementary and may lead to false positive results when used in the antigen tubes only. Glycerol being used in the control as well as in the antigen tubes removes this danger. Besides being a catalytic agent, glycerol is a good preservative for serums, especially the negative and positive control serums, and also when serum is to be sent a long distance. By means of an accurate unit of measure, quantitative results are obtained and are checked daily by the accurate quantitative positive control. I consider this method a great improvement over others I have so far tried.

Dr. Wilfred H. Kellogg (State Hygienic Laboratory, Berkeley, Calif.)—Dr. Ruediger is to be commended for having perfected a modification of the Wassermann test that is undoubtedly to be classed with the few really good tests. Whether or not it is really more sensitive than others and at the same time absolutely immune to false results and, therefore, entitled to selection as the "standard test," is a question that cannot be decided without much further comparative work. In comparing tabulation of results, it is essential that the same language be used in both or, at least, that the observers have very clearly in mind the meaning of the method of expressing strength of reaction in the two systems. For example, a glance at the table does not convey immediately to mind the fact that a Kolmer report of 44440 and a Ruediger report of 40 plus mean the same thing. With this in mind, I have analyzed the first twenty-three items in Table No. 5. If the actual quantities of reagin present in the tubes is taken into account, and both methods reported by the same system, it will be found that there were nine serums—one positive and eight negative that were the same in both tests.

Three serums were negative by Kolmer, and positive by Ruediger; one negative by Ruediger, and positive by Kolmer; four that were more strongly positive by Ruediger than by Kolmer, and six that were stronger by the Kolmer method.

Of course, this does not really mean anything; it merely accentuates the fact that there is no one method that can be depended on to get absolutely all cases, and no two methods that will give identical results throughout. It may be said also that there has not yet been devised a test that will not occasionally be exceeded in strength of reaction, in some particular case by some other method.

The desirability of a uniform test is universally admitted, but the need for some good test in every laboratory, performed by competent serologists is even more urgent at the present time. It is doubtful if the universal adoption of any one test will ever be brought about or that it would even be desirable; but it would be of great advantage if one test could be used very generally as a standard of comparison. I believe Doctor Ruediger's method merits consideration as such a test. Because it is so widely known and apparently has the best chance of any of being selected by a large number of serologists, I have been advocating the adoption of the Kolmer method for this purpose, and have encouraged its adoption by diagnostic laboratories in lieu of their own which sometimes, but not always, is as good as Kolmer's.

In keeping with this idea, I have discarded a method that I believe was its equal, and the hygienic laboratory now uses the Kolmer quantitative test. In the interest of uniformity, we also distribute, free of charge, standard Kolmer antigen to any laboratory using the Kolmer technic.

Doctor Ruediger (closing)—In closing, I wish to agree with Dr. Brem, in considering less sensitive methods obsolete.

In reply to some of Dr. Terry's remarks, I wish to state that reporting results in terms of fixing units per cubic centimeter of human serum tested seems to me the simplest and most logical method, and physicians and patients soon understand it. Glycerol I use for two reasons; it is a fairly good preservative, and it acts as a catalytic agent. Many times I have tested cholesterol and glycerol for antigenic properties on serums giving frankly positive results with the regular antigen, but I have not found any. Perhaps a very strongly positive serum would show some antigenic properties in glycerol. I have very little trouble with anti-complementary serums. The serum I reported anti-complementary would not have been reported so had there been serum enough for a retest.

Dr. Kilduffe thinks it regrettable that the paper does not indicate the preliminary investigations upon which the construction of my technic is based. A review of the literature on the subject would be entirely too much for us to cover at this time. The first report was published in 1916, and many reports have been published since. My method is so old that every laboratory worker should be familiar with it, but perhaps more are familiar with some of the new methods, especially that advocated by Dr. Kolmer. Furthermore, in this report we are chiefly comparing results not technical details.

This method is based on fully eight years of study. I have compared it with every method that has been published so far, and, had other workers who proposed new methods during the last few years compared their methods with existing methods, I believe many of them would not have been published, because they were obsolete before they went to the printers.

I use fairly large quantities of complement serum to economize on hemolytic amboceptor. I do not claim to be working with plain alcoholic antigen as commonly spoken of. I use plain alcoholic antigen plus glycerol, and find it more satisfactory than antigen reinforced with cholesterol.

During the last seven years, I tested serums from most of the common ailments and found syphilis and yaws the only two diseases in which positive results are obtained.

I find my method more sensitive than the Kolmer method, and, in a personal communication to me, Dr. Kolmer states that he finds my method more sensitive than his.

Those who have tried my method seem to like it. Dr. G. F. Ruediger and Mr. Mader, who have personal experience with it, find it more satisfactory than any other methods they have tried.

Personally, I have never condemned a method without a fair trial, and most of those who oppose my method do so because they never tried it. Dr. Kolmer fights against my method, but so far he has been unwilling to compare results with me.

Asthma-Tabs (Propaganda for Reform)—The Asthma-Tabs Laboratories of Kansas City, Missouri, conducts a piece of mail-order quackery in the sale of an alleged cure for asthma known as "Asthma-Tabs." The point of contact between quack and victim is, as usual, the venal or careless newspaper or magazine which sells its advertising space to herald the false statement of the Asthma-Tabs promoter. As usual, trial treatments are offered at a sliding scale of prices. The A. M. A. chemical laboratory analyzed this alleged "asthma cure" and concluded that each "Asthma-Tab" contains the equivalent of: potassium iodid, 0.35 gm.; potassium sulphate, 0.15 gm.; arsenic trioxid, 0.0005 gm. Thus this asserted new discovery contains as its essential constituents two drugs—potassium iodid and arsenic trioxid—that have been used for a generation in the treatment of asthma and may easily both be harmful and dangerous when used without care or in ignorance of their action.—Journal A. M. A.

REMOVAL OF TONSILS BY ELECTRO-COAGULATION

By ALBERT C. CARLTON, M. D., San Francisco

While electro-coagulation may have some salient features to commend it, experience has taught me that it is not a procedure to be employed in every case.

The operation can be performed in the course of a few minutes under local anesthesia.

The destruction of tonsils by the electric current is not new, but recent improvements in apparatus and methods have brought it into prominence.

The character of the current is of the utmost importance.

Electro-coagulation of tonsils will find its place, when methods of operation and apparatus will have become standardized, for selected cases as herein mentioned.

DISCUSSION *by C. F. Welty, San Francisco; F. L. Rogers, Long Beach; C. C. Stephenson, Los Angeles.*

When advocates for the removal of tonsils by electro-coagulation reported the possibilities of this method, the thought arose, was it not enthusiastically over-rated and were not some of its undesirable features suppressed. As any new method courts criticism from adherents of methods in vogue, it gave me the desire to investigate, and the result of my observations are herewith presented.

The literature on the subject, which attracted my attention, gave one the impression of ease of performance as simple as an ordinary office treatment. It seemed as though the physician need only to acquire the special apparatus devised for the purpose and proceed to remove any and all tonsils that came his way without further ado.

While electro-coagulation may have some salient features to commend it, experience has taught me that it is not a procedure to be employed in every case by anyone, but might become an adjunct to those accustomed to performing tonsillectomies in certain selected cases, when the proper technic and understanding has been acquired.

The operation itself can be performed in the course of a few minutes under local anesthesia, but the after effects are of consequence, and to destroy tonsils completely at one operation requires skill and experience. Post-operative conditions are comparatively the same as those following tonsillectomies, varying with the individuality, and the attendant discomfort must be cared for accordingly. There is also the additional necessity for disposing of the tonsil slough and caring for the inflammation produced by the electric burn which in some instances, if one is not careful, affects the surrounding pillars.

The acquisition of a working knowledge for the control of the current is incumbent upon the operator, that he may keep it confined within the tonsil tissue to be destroyed. The current is invisible and unlike the galvano-cautery, which is red hot, shows only the result, the coagulated area affected by it.

Electro-coagulation may be defined briefly as the application of the D'Arsonval high frequency current, measured by milliamperemeter, controlled by suitable apparatus, producing sufficient heat by resistance in its passage to coagulate and destroy living tissue.

Under the influence of a local anesthetic, coagulation is painless, hemostatic, sterilizing, without shock or physical taxation and commends itself to timid patients and those who for constitutional reasons should avoid general anesthesia, loss of blood or mental stress. Likewise to those who cannot afford hospitalization, loss of time from work or loss of income, electro-coagulation has its useful purposes.

The destruction of tonsils by the electric current is not new, but recent improvements in apparatus and methods have brought it into prominence and for the past eight months it has been employed by me in at least fifty instances for the destruction of tonsils, turbinates and pharyngeal hypertrophies.

The apparatus used consisted of a Fischer Diathermy apparatus, with food control, insulated cords, needle holder and flexible metallic needle as devised by Plank. An assistant to read the milliamperemeter and note the duration of each application, by clock, is essential to the proper control of the current.

The local anesthetic employed in each case was a solution of Butyn ½ per cent with epinephrin, injected into the tissues to be destroyed, no topical application of any kind being used, and the anesthesia was instantaneous and sustained for several hours. Approximately two milligrams per tonsil was injected without systemic reaction of any kind being noted. The amount of tissues to be destroyed at one sitting is important. Small cryptic, imbedded, fragile tonsils or tonsillar remnants of previous operations, so difficult to dissect, are ideal for electro-coagulation. Hypertrophied tonsils are not as suitable for destruction at one sitting, but can be done in two or more stages at intervals of three to four weeks, because the smaller the area to be destroyed the less current is required and the less reaction results and the minimum discomfort exists. The milliamperemeter is absolutely necessary for measuring the quantity of current used.

My experience shows that from 300 to 400 milliamperemeters destroy tonsillar tissue, when applied from ten to thirty seconds each application, according to the density of the tissue. Duration of the application depending upon whether the tonsil was soft, fragile or fibrous and bound with adhesions such as remnants left from previous operations. This practice, and the first insertion alone will tell.

The character of the current is of utmost importance. The apparatus can be adjusted to deliver the same millampereage with different types of current. A coarse vibrating current may produce a greater invisible radiation affecting surrounding pillars, than a soft, smoothly adjusted current. While it would not destroy adjacent muscular structures, inflammation is produced, which adds to the discomfort. Muscular tissue would be destroyed if the current exceeded 500 to 600 milliamperes, especially if its use was unduly prolonged. The softest current that will deliver 300 to 400 milliamperes by careful adjustment of the apparatus is most desired.

The duration of the current can be best guaged by the appearance of the areola of coagulation about the inserted needle. A soft current needs a longer application of the same milliamperage than a coarse current, which coagulates quickly, sometimes too quickly for best control. It must be borne in mind that the current passes into the tissue from the needle in all directions, including the point, and one must exercise care and judgment in the insertion of the needle as to depth and direction.

The depth of the tonsil must be estimated and at least one-eighth inch radiation allowed for in all

directions, including the tip, so that no damage be done to pillars or floor. The Plank needle is flexible and can be bent in the direction best suited to parallel the pillars, not point at or into them. On the average the needle need be inserted about one-quarter inch, and not in excess of one-half inch, to destroy small cryptic tonsils to the capsule, other sizes in proportion.

Thus, with the proper equipment, the patient with tonsils anesthetized, seated in a non-metallic chair or auto-condensation seat, with a good light to reflect into the throat; a wood or fiber tongue depressor and the assistant ready to read the milliamperemeter and note the time; consideration having been given to size, depth and density of the tissue; the apparatus adjusted to deliver the milliamperage and character of current before mentioned, the operation is quickly performed.

When the effects of the anesthesia have worn off, such pain and discomfort as may exist for the subsequent twenty-four hours or so, can be cared for as with tonsillectomies.

About the fourth or fifth day the sequestrum formed from the coagulated tissue partially liquefies and a fetid odor is noted from the necrosed tissue. This can be modified with antiseptic and deodorizing gargles. For this purpose a gargle called "Formula B" has been used by me, as an antiseptic, analgesic and deodorant, with complete satisfaction.

Under no circumstance should the slough be forcibly removed or quantities of coarse food be taken during this period, as it will cause bleeding. When the slough separates it can be gently wiped out. The fossae should be cleared by the tenth or twelfth day and healing is complete within a few days thereafter, leaving the contour of the throat and pillars in normal condition, without deformity or adhesions. During the sloughing period the patient may resume his occupation with little discomfort.

Quite different from tonsillectomy, should for any reason, small particles of tonsil tissue remain, it is a very small matter to dispose of them by electro-coagulation, without trouble to the operator or loss of time or expense to the patient. The removal of small particles of tissue cause little or no reaction and need no subsequent attention.

For the patient with systemic disease due to focal infection with suspicion directed to tonsils having no visible evidences of infection where one is hesitant to incur unnecessary expense, electro-coagulation can be recommended as an easy, economic method of disposing of a possible cause with the least amount of stress upon the already diseased burdened system.

I venture to conclude that electro-coagulation of tonsils will find its place, when methods of operation and apparatus will have become standardized, for selected cases as herein mentioned.

177 Post Street.

DISCUSSION

Dr. Cullen F. Welty, M. D. (210 Post Street, San Francisco)—I am very much interested in what Dr. Carlton has to say regarding removal of the tonsil by high frequency current.

In the first place I have never used this procedure for the simple reason that it is so much easier for the patient as well as for the surgeon to remove them in a different way. To my notion there might be some excuse for removing a piece of tonsil left at a previous operation, in this way.

However, the high frequency current operates best in new growths; that is the new growth is not so resistant to the current as the normal tissue. In other words, the new growth will be destroyed and the normal tissue will remain. I have demonstrated this repeatedly in the removal of carcinoma of the lip as well as carcinomata about the face.

Francis L. Rogers, M. D. (Markwell Building, Long Beach)—This paper of Dr. Carlton is interesting in its detail and it seems to me timely; also as it has quite ably brought to our attention a method of treatment of tonsils which I believe should receive the unqualified disapproval of this section.

Electro-coagulation is none other than a chemical burn. It produces molecular stasis and death in the tissue to which it is applied. The dead part is not removed but is left to become absorbed or slough out. To use this method skillfully, i. e., destroying only the tonsil tissue without injuring other parts, I believe requires as great or greater skill than other well recognized and more surgical methods to tonsil removal.

It is spectacular in that it carries the "no knife" idea to the patient, which is ample reason for its being adopted by quacks and cultists as something "so different," when as a matter of fact it is, in unskilled hands, simply another form of bungling surgery. The electro-coagulation wound becomes foul because of the slow decay and sloughing of the tissues and takes longer to heal than a like sized wound made by knife or snare. The adjacent tissue is often devitalized in some degree and occasionally deep burns are produced. The method is dangerous also because the current produces in some measure its own anesthesia, and thereby the operator may be misled in the extent of tissue destruction he is producing.

Personally I have no experience with this particular method, but the cases I have seen have rarely shown an entire removal of the tonsils. I can scarcely conceive of a type of case where its use would be preferable to other quite as simple, more safe, and more surgical methods. I believe that practically all electrical treatment, including the x-ray, for tonsils have been quite generally disappointing in their results to the throat specialist, and this one I believe should receive our hearty condemnation.

C. C. Stephenson, M. D. (812 Bank of Italy Building, Los Angeles)—I am sorry Dr. Carlton did not mention in his paper the use of the electro-coagulation method in the management of that class of tonsil infections where the crypts are filled with foul debris, complicated with enlarged glands (adenitis) in the lymphatic glands and sub-maxillary glands, as well as the mastoid glands.

I had occasion this morning to remove the tonsils from a young Spanish woman that I believe to be about as nearly rotton as could be without an actual necrotic process already in evidence. The crypts in this case were filled with the foulest smelling debris that it has been my lot to ever see.

To be sure, I feel that the electro-coagulation in a case like this, might not do the same work that the entire enucleation does.

I was in hopes that the doctor would mention this class of cases, and I have presented this one with the idea of bringing out the point as to which is the best method to pursue in dealing with cases such as I have outlined.

Dr. Carlton (closing)—In presenting my experiences with electro-coagulation I was prompted to do so on account of the extravagant claims and apparent lack of understanding of the consequences of attempting the use of the high frequency current as a destructive agent, without due deliberation and understanding.

I want to again emphasize that it is the anaesthetic that makes it painless, not the coagulation; the performance of the operation may be harmless and bloodless, but the after results may not be. Caution and understanding are urged before attempting its use; to

trifle with it, without the necessary knowledge, is dangerous.

I had hoped that someone who had made use of this method could contribute his experiences, for little seems to be known about it from actual experience. I have set down such procedure as I know to be safe from actual experience so that others might have something to guide them, should they see fit to try for themselves.

With regard to the simplicity of the procedure as mentioned by Dr. Welty, nothing is simpler than the insertion of the needle and pressing the switch, provided, however, that all that is mentioned in my paper has been given consideration to produce the desired result. What is more seductive than the removal of tonsils with no knife, no hospital, no pain, no anxiety or distress from anaesthesia, no additional expense, no loss of time from work?

Dr. Rogers' remarks are an exemplification of the general opinion of those who have condemned electro-coagulation from hearsay. In answer to them, I would say, why condemn when we do not know? The section is essentially to learn of new methods as well as of old ones; old ones so frequently poorly used and always amenable to improvement. I do not advocate electro-coagulation as the successor of all known methods, merely a presentation of a few experiences to guide others and to urge the use of the high frequency by those who have qualified in electrotherapy and above all competent to care for any post-operative contingency such as a throat specialist should be able to do.

GLIMPSES OF PAST MEDICAL SOCIAL SERVICE WORK AND ITS PRESENT STATUS *

By PERCY T. MAGAN, M. D., Los Angeles
Dean College of Medical Evangelists

The twelfth and fourteenth chapters of the Book of Leviticus quaintly record the offering or "fee scales" applicable to rich and poor.

Elisha went so far as to even refuse to receive from Naaman, the Syrian, the Captain of the Host, who was a leper, any compensation whatsoever for cleansing him of his leprosy.

A great London divine once stated that the better part of a good sermon always came from the audience.

The word "profession," in its ancient and intrinsic meaning, carries the idea of the performance of a sacred and religious duty for the welfare of others, without money and without price.

Every agency which will assist in helping the different stratas of society to understand each other, is a positive force for untold good.

The beginnings of that unique relationship which exists between men and women of the medical and nursing professions and those ranks of society who, for various and sundry reasons, are blessed with but little of this world's goods, lie buried far back in the crypts of the Temple of Time. I use the word "unique" because the shuttle of vital interchange between these two groups is rare indeed, to any great extent, at least, as between most other professions and those in the humble and lowly walks of life. It is seldom that a great lawyer volunteers his services without money and without price to plead the cause of men who are altogether unable to recompense him for his time and effort. Not often is an architect called upon to give of his skill in assisting impecunious families to plan their homes in the most economical and artistic manner. It has even come to be that religious workers, in many instances, may be divided into two classes—those who preach to the rich, and those who labor for the poor. The engineering profession makes its creations available to all, but to all at a price. On the other hand, in the healing vocations it is the greatest and most skilful practitioners, as well as those not so widely known, who donate a very large amount of time and strength to those from whom they never expect to receive a reward beyond heart gratitude for health restored.

This spirit to spend and be spent, as already stated, had its birth in the dim dawn of history. The writings of the Hebrew Moses enjoined upon the priests, not only religious teaching, but the inculcation of sanitary measures, personal hygiene, dietetics, preventive medicine, quarantine regulations, and therapeutics. The twelfth and fourteenth chapters of the Book of Leviticus quaintly record the offering or "fee scales" applicable to rich and poor. Thus, after confinement, a woman who could afford the same was to bring a lamb and a young pigeon or a turtle dove. If, on the other hand, poverty was her lot, the principles of the code of medical social service governing us today were in force, and such an one was only required to bring two turtle doves or two young pigeons. In other words, the poor woman's bill was discounted by one lamb. Again, when the well-to-do leper was cleansed of his leprosy, the offering or fee imposed upon him consisted of two he-lambs, one ewe lamb, three-tenths deals of fine flour mingled with oil, and one log of oil. But if the leper "be poor and cannot get so much," then he was only to take one lamb and one-tenth deal of fine flour mingled with oil, and the log of oil, and two turtle doves, "such as he is able to get." This reduction amounted to about 60 per cent discount from the regular scale.

In later Bible days, the prophet Elisha went so far as to even refuse to receive from Naaman, the Syrian, the Captain of the Host, who was a leper, any compensation whatsoever for cleansing him from his leprosy. Evidently, the seer was endeavoring to win the idolatrous warrior from the silly therapeutics of the heathen cultists and quacks of his nation and time. Unfortunately, the beauty of the incident was marred by a lack of the social service spirit upon the part of the man, Gehazi, who seems to have been a rapacious and greedy medical student of cultist proclivities, who failed to catch his master's spirit. This young man, like many of his twentieth century progeny, evidently got a greater reaction out of *preying* upon his patients than by *praying* for his patients. When the aged prophet's back was turned he ran after the heathen prince and mulcted him of two talents of silver and two suits of clothes. For his rapacity the solemn decree was pronounced: "The leprosy, therefore, of Naanan shall cleave unto thee and unto thy seed forever."

In the days of the Roman Empire, both Tacitus, the great historian of his time, and Pliny the Elder paid tribute to the spirit of the early Christian Church in tenderly caring for the sick and afflicted among them without money and without price. In an age pregnant with luxury and vice, and of blase indifference to the needs of the unfortunate, these

* Presented before the Division of Medical Social Service Workers at the Annual Meeting of the California State Medical Association, 1924.

traits of character were regarded as breathing the spirit of a new and better day.

Turning now to the rebirth of social service work in later times, the old Scotch adage applies: "Tis an ill wind that blows nobody good." In the year 1665, the city of London was devastated by a terrific scourge of fire. A monument marks the spot where the fatal spark gave the great conflagration its birth. If my memory serves me right, that spot in the quaint nomenclature of the streets of the ancient town was described as being "Pie corner, off Pudding lane, near Fish street." The fiery visitation rid the city of the great plague which had been such a fearful scourge. Thousands of homes had been made desolate; mothers had been snatched from their infants and infants from their mothers, and untold numbers of fathers and breadwinners had been carried away by the doleful death carts, leaving their loved ones to fight life's battles as best they might.

The fire was a blessing in disguise, as its ravages destroyed thousands of plague-infected buildings, together with the causative bacteria. But the fire left thousands homeless and in dire poverty. The gluttonous maw of the flame had destroyed their little all. Homes, furnishings, clothing, and means of making a livelihood were gone. Soon misery, starvation, sickness and want were abroad in the land. The heart-rending picture of squalid misery was not lost on the members of the medical profession. Then it was that a resolution was passed by the College of Physicians that all members should donate their services to the poor altogether without compensation.

This sacrifice, great as it was, proved, however, insufficient. Medicines and supplies were needed. An appeal was made to the pharmacists of London, who at that time were organized into a guild known as Apothecaries Hall. The apothecaries, however, refused pointblank to donate either medicines or supplies, or to even lower the prices upon the same. The doctors met again and took up a fund from among themselves. Fifty-three of their number agreed to pay the sum of ten pounds apiece per annum with which to purchase medicines for the poor. The records extant of this effort in medical social service are very meager. The most we know is that, during the first five years of the existence of the dispensary, twenty thousand prescriptions were given out.

As far as the United States is concerned, to Philadelphia, in the year 1786, belongs the honor of having started the first dispensary in our land. To this very day the work is still carried on in Independent Square, in a building which was erected in 1801. In New York City, the New York dispensary was established in 1790, while the third dispensary in the country was the Boston dispensary founded in 1896 on Washington street, near the corner of Court street, on which the restaurant known as Thompson's Spa now stands. The statement of the founders as setting forth the real spirit of their purpose is replete with interest:

"It having been found by experience both in Europe and in several of the capital towns in America that dispensaries for the medical relief of the poor are the most useful among benevolent institutions, a number of gentlemen propose to establish a public dispensary in the town of Boston for the relief of the sick poor, which they presume will embrace the following advantages:

"1. The sick, without being pained by a separation from their families, may be attended and relieved in their own houses.

"2. The sick can, in this way, be assisted at a less expense to the public than in a hospital.

"3. Those who have seen better days may be comforted without being humiliated; and all the poor receive the benefits of a charity, the more refined as it is the more secret."

What the doctor's office is to the wealthy and middle-class patient, the dispensary is to the poor man. This was noted by Oliver Wendell Holmes, in a report to the Boston dispensary in 1837, after he had been one of its district physicians, and urged the establishment of a clinic, saying:

"A consulting room well attended is one of the most valuable schools for students, as well as practitioners of medicine, since many cases of disease may be seen within a limited time; and, being thus collected, may be compared with and illustrate each other. This is one of the legitimate ends of all medical charities."

In 1908, Sir William Osler, in his address at the opening of the new out-patient building of the Cardiff Hospital, said:

"That an out-patient department is simply for the relief of the poor—the common idea—is to take an altogether too narrow view of its functions. . . . Of course, the first and most important function is the relief of the poor. . . . In acting as the training school for the younger members of the profession, the out-patient fulfils its second great function. . . . With sufficient staff, there is no reason why just as careful notes should not be taken in these rooms as in the wards, and let me remind the younger physicians in the audience that some of the most brilliant reputations in the profession of this country have been built up upon the solid foundation of notes taken in out-patient departments. Let me urge you to make ample provision for our medical students in the out-patient department, where they see the patients in their native state, so to speak, before they have been scoured and cleansed by the nurses in the ward." (Note: For the historical matter relative to the fire of London and the quotations from Osler et al., see Davis and Warner "Dispensaries," p. 3, et seq.)

A great London divine once stated that the better part of a good sermon always came from the audience. In other words, the sympathy of the congregation was necessary if the preacher were to accomplish the most good. There can be no question but that medical social service workers are possessed of the finest kind of audiences—audiences the very needs of which are bound to inspire magnificent desires to do the very best work possible under the circumstances. A rather thread-bare charge is abroad in the land at the present time that doctors and nurses have become altogether too professional. Exactly the opposite, however, is the truth. It may

be true that in the dealings of doctors and nurses with the poor and the ignorant that there has been too much of the highbrow and too much talk so scientific in its nature that these people cannot understand it. Perhaps a recent definition of a scientific man applies; namely, "A person educated beyond the limits of his intelligence." But there never was a time in the history of the world when so much real professional work upon the part of the medical and nursing professions was being done as at the present. For the word "profession," in its ancient and intrinsic meaning, carries the idea of the performance of a sacred and religious duty for the welfare of others, without money and without price. No longer do the words of the lawyer engaged in a heated argument with the Judge relative to the cause of the death of his client apply, "Your Honor, this man died without medical assistance or benefit of clergy."

Many years ago the commonwealths of the world decided that an ignorant population was a financial detriment. From a very early day it was decreed in this fair land that illiteracy must be abolished. It is equally true that we cannot afford waste and misery, especially disease which is the greatest cause of economic waste and suffering. The medical social service worker solves the problems of the poor and unfortunate at and in the fountain head which is the home. She saves the community millions of dollars by teaching her clientele how to care for themselves in their homes instead of demanding hospitalization for every ailment, real or imaginary. This is a most important fact and one which is very often overlooked. Any work which is to stand and be of permanent value must be built up from the bottom. To solve the problems of sickness and want, and to solve them in the actual homes where they are found, is a fundamental and vital stone in the improvement and uplifting of the masses. The medical social service worker is the one who does this.

Again, in these days of ferment and unrest, in these days when the old habits and customs of society are changing and liquefying in the great crucible of time, every agency which will assist in helping the different stratas of society to understand each other, is a positive force for untold good. The world is filled with demagogues whose text in life is anything that will destroy the existing order which, poor though it may be, has been painfully constructed through many years of toil and work. In a most sympathetic and intimate manner the medical social service workers bring the educated and scientific stratas of society into the most kindly touch with their more unfortunate neighbors.

1808 New Jersey Street.

"Few professions require more careful preparation by one who seeks to enter it than that of medicine. It has to deal with all thost subtle and mysterious influences upon which health and life depend, and requires not only a knowledge of the properties of vegetable and mineral substances, but of the human body in all its complicated parts, and their relation to each other, as well as their influence upon the mind. The physician must be able to detect readily the presence of disease, and prescribe appropriate remedies for its removal."—Harry E. Kelly of the Chicago bar (Federation Bulletin).

CLINICAL MANIFESTATIONS AND TREATMENT OF EPIDEMIC ENCEPHALITIS *

By JOHN B. DOYLE, M. D.
(From the Section on Neurology, Mayo Clinic, Rochester, Minnesota)

Epidemic encephalitis is more protean in its manifestations and consequences than was formerly appreciated.

Bizarre neurologic pictures have been common since the advent of encephalitis.

The treatment of acute and chronic types has been notoriously unsuccessful.

No dependable data of the efficiency of vaccine treatment in the more chronic types.

Rosenow's serum establishes a line of hopefulness for those acutely ill.

It may be favorable and advisable to diminish by surgical means the crippling hypertonicity in cases no longer progressive.

This paper presented before the Utah Medical Association at the Annual Session, Logan, Utah, June 19, 1924.

For authors and subjects quoted, see Cumulative Index A. M. A.

Discussion *by Foster J. Curtis, Salt Lake City, and the author.*

It is a truism that each patient who visits a physician presents an individual problem, and that the accurate diagnosis of each patient's trouble is feasible only when the classification is sufficiently broad. The protean manifestations of epidemic encephalitis have rendered such grouping so difficult that it has become necessary to attempt to discover the greatest common factor in these cases.

REPORTS OF CASES

Case 1 (A391059)—A boy, age 10 years, was brought to the clinic May 9, 1922. His father said that he had been well and apparently normal until March, 1920, when he had an illness characterized by marked lethargy, double vision, and agitation. He improved slowly, and in April returned to school. He had to be taken out, however, on account of talkativeness and mischievousness. He took a diamond ring from the house and gave it away. Since then he had taken money, books, jewelry, and other things of no particular value to him. He had run away frequently, stayed out all night, and carried on in an irresponsible manner. His parents often found him asleep in church, or on the porch.

The patient said he had heard voices in his left ear telling him to do these things. His intelligence quotient was about 100. Neurologic examination was negative objectively. It soon became necessary to place the boy in an institution for the feeble-minded. He has improved considerably, but as yet has not been dismissed from observation.

Comment — This case illustrates a type of encephalitis seen during the epidemic of the early months of 1920. The boy had the usual lethargy, diplopia, and motor restlessness. Changes in character such as this boy displayed occur chiefly in children and adolescents. Peculiar mannerisms, impulsive and compulsive acts, mendacity, irresponsibility, and kleptomania are a few of the acquired characteristics. Docile, obedient, studious individuals have become reprehensible scaliwags. Very recently a boy (A466548) was seen who had developed a mild Parkinson's syndrome and diabetes insipidus, following a lethargic illness in 1920. Prior to that time he had been bright and studious. Since then he has been stupid and unable to make progress in work at school. This child exhibited mental deterioration; the first one, moral perversion.

The earlier epidemics were characterized by leth-

* Read before the Utah State Medical Society, Logan, Utah, June 19 to 21, 1924.

argy, and the disease became known as encephalitis lethargica. In more recent years, the frequent absence of this feature led to the acceptance of the term "encephalitis epidemica." Lethargy has been described in various diseases of the brain, such as neoplasm, abscess, hemorrhage, and hydrocephalus internus. However, until Economo described encephalitis lethargica in 1917, nothing quite like this entity had been observed. The persistence of the lethargy for months without the accepted evidences of increased intracranial pressure rule out this factor as the causative agent. The absence of toxic appearances and phenomena would seem to exclude the idea of a toxic agent. Probably the most acceptable and popular conception is that the lethargy is due to involvement of the central grey matter of the brain stem and of the substantia nigra. The lethargy, when present, is rather typical. Although the patients seem in a deep sleep, they may be roused, and after a considerable latent period slowly respond in a normal manner and then return to their apparent stupor.

Economo described three stages of the disease. In the first there were fever, delirium, and hypomania for one or more days. Then followed a variable period of a few days to many weeks, during which there was marked hyperactivity, often associated with insomnia, choreic or athetotic manifestations and myoclonus. Finally the patients lapsed into a lethargic state, during which there were palsies of the cranial nerves, associated with bulbar and cerebellar symptoms. The exceedingly great variations, however, in the individual cases render this outline of little or no value. Many patients exhibited but one or two of the three stages; others presented a remarkable paucity of diagnostic data.

Case 2 (A302316)—A man, age 29 years, came to the clinic January 10, 1920. One night in the latter part of December, 1919, he had been awakened by a severe frontal headache which persisted until the next morning. From that time until he came to the clinic, he slept only while under the influence of drugs. On the second day of the illness, diplopia appeared; on the fifth day, the right half of the face became paralyzed, and on the seventh day the left half was similarly affected. It had become necessary for him to push his food into the pharynx in order to swallow, and he had noticed difficulty in talking, due to weakness of the tongue.

The patient was somewhat lethargic. There was a partial paralysis of both facial nerves and weakness of the lingual and faucial musculature. Responses of the facial muscles to electrical stimulation were diminished. The Wassermann reaction on the blood was negative. Spinal fluid examination revealed a negative Wassermann reaction, a negative Nonne, and one small lymphocyte. In other respects the general and neurologic examinations were negative. The diagnosis was polio-encephalitis inferior of indeterminate type.

April 4, 1924, the patient returned to the clinic. He had had transitory diplopia for two or three weeks after his departure from the clinic in 1920. The dysarthria and dysphagia had cleared up in three months, while the facial paralysis had diminished for six months. He complained, however, that he had become progressively slower mentally and physically, and finally had had to sell out his business. During the summer of 1920 the insomnia had reappeared, and he had noted a progressively increasing rigidity of the hands and also a tremor. There was a suggestion of a mask-like facies and evidence of partial, faulty regeneration of both seventh nerves. The gait and attitude were typically parkinsonian. The usual hypertonicity, diminution in speed of the skeletal muscles, and tremor in the hands, at rest, were exhibited. The diagnosis was epidemic encephalitis.

Comment—This man came to Rochester early in the first real epidemic, and while it was felt that he was suffering from an infectious process, the exact nature of his complaint was undetermined. The history of insomnia and diplopia, and the suggestion of lethargy on the occasion of his first examination, in the light of present knowledge, would have been sufficient to establish the diagnosis. Even in the very early cases, insomnia frequently appeared as one of the striking symptoms in place of its direct antithesis, lethargy. In some cases there were combinations of the two symptoms, the patient being unable to sleep at night, and somnolent during the day. This is a typical inversion of sleep rhythm.

Fever, when present, does not conform to any particular type. It tends to be low and rarely exceeds 101 degrees. Some of the patients have had hyperpyrexia as high as 104 or 105 degrees F., while many of the patients have been afebrile throughout their entire illness. Of all signs, those afforded by disturbance of functions of the eye muscles have probably been of the greatest value. Not infrequently this dysfunction is evidenced by transient blurring of vision, due to paresis of accommodation of almost imperceptible diplopia. More marked disturbances, such as ptosis, difficulty in looking up and down, loss of the power of convergence, and paresis of the external rectus, leading to an homonymous diplopia, are not at all rare. The pupillary reflex is often disturbed in its reaction to light and on convergence. Some of the patients have complete internal ophthalmoplegia; others, a moderate diminution in reaction to light and on convergence, while a small number present typical pictures of the classical Argyll-Robertson pupil. Paralytic lesions of the remaining cranial nerves are at times observed, but do not constitute a fair proportion of all cases. These are represented by facial palsies, paresis of the faucial musculature resulting in dysphagia, lesions of the vagus with disturbances of cardiac and respiratory rhythm, and finally paresis of one-half or all of the tongue. A few cases were seen in which there was edema and swelling of the optic discs.

In most instances the cranial nerve palsy was incomplete and transient. Among the patients who developed a parkinsonian syndrome later, the paresis of accommodation and the difficulty in converging the eyes and looking upward often persisted.

Case 3 (A456087)—An unmarried woman, age 26 years, a nurse, came to the clinic February 20, 1924, complaining of nervousness, and spells in which her eyes became fixed. She had always been nervous and had had migraine for many years. While on night duty in the early part of 1920, she had nursed a case of lethargic encephalitis. Soon after this she began to see double, to have a slight fever, to be wakeful, and to feel exhausted. These symptoms persisted for one week; she then became drowsy and slept most of the time for the next two weeks. On return to work she complained of too ready fatigue and of drowsiness. She managed to continue at her work until January, 1922, when she became unstrung. A rest of four months permitted her to return to graduate in May, 1922. For two years prior to examination she had slept fourteen hours daily. Her movements during that interval had been growing slower and her hands had become tremulous. Several times daily for one and one-half years her eyes had suddenly turned upward and become fixed in that position for periods varying from a few minutes to several hours. Although she was able to move her eyes during these seizures, the movements could not be sustained.

The patient was well developed and nourished. She presented a rather marked mask-like facies, held her arms

and hands in a fixed position while sitting and walking, spoke in a monotone and drooled. There was moderate hypertonia, more marked in the upper extremities, particularly on the left side, with corresponding diminution in speed. There were static and movement tremors of the hands. Passive movement of the arms elicited the cog-wheel phenomenon. Vision of the right eye was 6/10 and of the left 6/12; the visual fields and fundi were negative. No nystagmoid movements or ocular palsies could be elicited. Physical examination showed enlarged tonsils containing fluid pus. The Wassermann reaction on the blood was negative.

Comment—Similar cases have been somewhat unusual. They may have their counterparts in disturbances of the facial, sternocleidomastoid and allied muscles which have resulted in spasms and tic-like lesions which do not conform to the ordinary conceptions of facial tic or spasmodic torticollis. The development and persistence of the striatal syndrome has been coincident in most cases with the appearance of other troublesome sequelae. Trismus, deafness, and vertigo have been seen in individual cases, but are too uncommon to have any value from a diagnostic standpoint. In the more recent epidemics there has occasionally been relatively early development of rigidity of all extremities, the first step in the development of the parkinsonian syndrome. When well developed, this syndrome becames a duplicate of paralysis agitans. There is the characteristic mask-like, greasy facies, the drooling, the tremor on light closure of the eyelids, the stiff back, the stoop and the festinating gait in which the patient holds his arms rigidly by his side and tends to walk on his toes. Some of the patients for days at a time, constantly repeat a certain movement (forced movements); others talk unceasingly for hours and days; while still others exhibit a flight of ideas, and even mania. The delirium is generally of the occupational type, but differs from that of delirium tremens in that tremor is absent. Echolalia has been the predominating type of reaction in some patients. Pyramidal tract signs are uncommon, and generally of short duration. Insomnia and disturbance of the rhythm of sleep for variable periods are often the only facts that can be obtained to explain the origin, and to allocate the onset of a chronic progressive type of encephalitis.

Case 4 (A409950)—A man, age 56 years, came to the clinic November 9, 1922, complaining of constant movements of his tongue, lips, and jaw. In 1918 he had had influenza and was confined to bed for four weeks. He was delirious for one day early in the illness. One week later he had become drowsy and had remained so. He could sleep anywhere at any time, and had averaged fourteen hours of sleep each night. Six months before coming to the clinic, he had awakened one morning and discovered that his tongue was moving up and down, and that his lips and lower jaw were moving in an interrupted but rhythmic manner. Although there had been no associated pain, he had had much trouble in eating, drinking, swallowing, and speaking. He had drooled saliva from the onset.

On examination, the patient had a typical parkinsonian gait and appearance, and was drooling saliva. His jaws, lips, and tongue were in almost constant rhythmic movement up and down. There was the usual difficulty in elevating the eyebrows, and a generalized loss of speed and increase in muscular tone. His condition has continued with little change to the present time.

Comment—Bizarre neurologic pictures have been common since the advent of encephalitis. Persistent myoclonus, such as this patient presented, has been exceptional, but has occurred sufficiently often to warrant attention. The excessive secretion of saliva in this case, and of tears and sebum cutaneum in parkinsonian cases, probably is the result of central irritation of the secretory fibers. Myoclonic movements of the extremities, the abdominal wall, the diaphragm, the face, and the tongue are not unusual. In some patients a definite rhythm has been maintained for considerable periods; in others, the movements have been very irregular in occurrence and severity and have been associated with pain.

Case 5 (A431100)—A woman, age 60 years, came to the clinic June 27, 1923, complaining of pains in the back. She had been well until five months before, when she developed a pain under the right breast which passed around dorsally, and which was associated with a mild fever for three weeks. During this period she felt ill and ate very little. Her side was strapped for the relief of the pain. Toward the end of the febrile period, she developed severe pain over the anterior aspect of the right leg. Both of these pains continued with diminishing intensity for two months, when they were replaced by a pain in the lower lumbar and sacral region which came in attacks lasting from twenty to thirty minutes. Later the pain became associated with uncontrollable jerking of both lower extremities, the amplitude and forcefulness of which varied in direct proportion to the intensity of the pain. At times, the patient had to be held in bed.

On examination the patient was emaciated, and had a bed-sore over the sacrum. A roentgenogram of the lumbar spine showed hypertrophic arthritis. There was moderate weakness of the glutei and psoas muscles, and some reduction of sensibility tactile, painful and thermal stimulation around the anus. One of the most striking features was the occurrence of fusilades of irregular, arhythmical, forceful, spasmodic jerkings of the muscles of both lower extremities and those around the hip-joint, consisting chiefly of flexion of the knees and contraction of the glutei, with alternate opening and closing of the anal fissure. Even more striking than this was a regular, rhythmical (80 each second), pulsating, to-and-fro movement of the abdominal muscles which was more marked on the right side and posteriorly, and which depressed the rib margin and elevated the umbilicus. Synchronously there was a pulsation of the ham-strings. There was, however, no synchronism between these movements and the pulse, the respiration, or the paroxysmal contractions of the lower extremities. The diganosis was encephalo-myelitis of the spinal myoclonic type. At the present time the pain and movement continue unabated.

Comment—This patient incorporated rhythmic and arhythmic types of myoclonus, and pain. The case belongs in the epidemic group, in which the involvement was more than usually widespread, and the clinical condition was actually encephalo-myelitis. In a few of these cases there was loss of deep reflexes and difficulty with the urinary and anal sphincters. The sensory findings, although slight, are of tremendous interest. Objective evidence of this sort has been very rare, and in itself would justify consideration of this case.

Case 6 (A383125)—A man, age 35 years, came to the clinic February 2, 1922, complaining of persistent hiccup which had appeared suddenly nine or ten weeks previously. At first it had occurred four or five times daily in series of three or four. Later it occurred every ten minutes day and night, keeping the patient awake and incapacitating him generally. He said the condition was different from ordinary hiccup, in that it was more forcible, active, and persistent, and was preceded by a peculiar sensation behind the sternum.

The general and neurologic examinations were essentially negative. April 6, 1923, the patient wrote that he still hiccuped frequently, but that it was less troublesome than previously.

Comment—The epidemic of the hiccup variant of encephalitis is over, but sporadic cases continue to appear. Several weeks ago, a typical case of acute

encephalitis of the epidemic form with hiccup was observed at the clinic. Rabbits injected intra-cerebrally with washings from the nasopharynx developed spasms of the diaphragm.

Respiratory disturbances have been reported (Parker) in considerable number. The main features of this syndrome are paroxysmal, forced, noisy respirations, breath-holding, and dyspnea in certain positions.

Case 7 (A385852)—A boy, age 17 years, came to the clinic March 8, 1922, complaining of cough. He had been well until February, 1920, when he had influenza. During the remainder of 1920 he fatigued easily, was nervous, and slept as much as possible. In February, 1921, he developed a cough which steadily grew more distressing. He always stood during attacks because he felt better.

General physical and neurologic examinations were negative except for frequent paroxysms of respiratory disorder. There were three phases to a paroxysm. He stood up and made twenty or thirty short coughing expirations with longer inspirations, which were interrupted by several long drawn out snuffles. Then followed a period of voluntary apnea during which the breath was held midway between inspiration and expiration, and the head was drawn over to the left and slightly backwards. The head then returned to the normal position, the patient's face became flushed, he swayed and looked dazed, and then dropped to the couch exhausted. The patient finally became helpless. He was placed in an institution, where he died in March, 1924.

Case 8 (A451962)—A girl, age 19 years, came to the clinic January 4, 1924, complaining of attacks of unconsciousness. She had been well until January, 1923, when she suddenly developed fever, insomnia, irritability, and emotional instability. After a week the fever disappeared, but the other symptoms persisted and were definitely worse at night. During the spring she had much difficulty in falling asleep, and began to have what her relatives called hysterical attacks, during which she would stiffen out, hold her breath for a few seconds, and then breathe rapidly. Late in the summer the attacks subsided, but she remained very irritable. In September, 1923, tonsillectomy was performed. All symptoms immediately grew worse and she began to have attacks, during which she would become rigid, hold her breath a few moments, and then make several rapid inspiratory efforts. At first these occurred from one to three times daily, but on admission they had been almost constantly repeated for two weeks. Three weeks before, she had begun to have spells of unconsciousness of a few seconds' duration at the end of the opneic period, and to fall to the floor if not supported.

Physical and neurologic examinations were objectively negative, except that the patient was almost constantly repeating a peculiar respiratory cycle. She would begin to take increasingly frequent and deep inspirations, and after from seven to ten would hold her breath for thirty or forty seconds, allowing a small amount of air to escape so that a wheezing noise was produced. During this time she had an anxious expression, became cyanosed, and lost consciousness for three or four seconds.

Comment—The prognosis for patients with this syndrome is very grave.

The findings obtained on examination of the cerebrospinal fluid of patients suffering with epidemic encephalitis are relatively few. Occasionally, the pressure is somewhat increased. As a rule, the cell count is less than 100 and the predominant type of cell is the lymphocyte. The total albumin and the sugar content are elevated in a few instances.

TREATMENT

The treatment of acute and chronic types of epidemic encephalitis has been notoriously unsuccessful, as is attested by the vast number of remedies that have been suggested, used, and then discarded. Hoff has summarized the various methods of treatment employed in the Clinic for Psychiatry and Neurology of the University of Vienna. One of the first methods used was that of intravenous injection of 10 cc. of a 10 per cent solution of urotropin. This was found to be worthless from a therapeutic standpoint. The use of a 50 per cent solution of sodium iodid intravenously seemed to be of some value in the myoclonic forms of the disorder, but did not prevent the development of chronic progressive states. In a fair proportion of the acute cases the patients seemed to be benefited by intravenous injections of sodium iodid and typhoid vaccine; in fact, typhoid vaccine alone apparently produced considerable improvment in the lethargic forms of the disease. Vaccineurin, a combination of the autolysins of *Bacillus prodigiosus* and *staphylococcus* gave very satisfactory results in acute cases, but was of no value in chronic ones. The amount of improvement obtained in late cases following the injection of sodium cacodylate in doses of 0.5 to 2 cc. of a 50 per cent solution was scarcely perceptible.

Intraspinal injection of the serum of convalescent patients has been advised. Later the use of fluid extract of gelesemium and hyoscine for the parkinsonian types of disturbance was strongly recommended. Hot packs have seemed to be of value in some of the afebrile or nearly afebrile cases.

In 1919, Rosenow began his study of the etiology of epidemic encephalitis. With a somewhat peculiar streptococcus isolated from infected tonsils, teeth, and naso-pharynx he succeeded in producing typical symptoms and lesions of encephalitis in animals. Although the various strains isolated were of low virulence, they had considerable antigenic power. Rabbits were successfully immunized following the injection of homologous and certain heterogenous strains. On the basis of these determinations, treatment by active immunization (vaccine) has been tried in the more chronic types of the disease, with a view to preventing recurrences and sequelae. No dependable data are available concerning the efficacy of treatment by vaccine. On the basis of letters received from patients and their family physicians, apparently little can be expected. Serum obtained from horses, immunized by repeated injections of increasing doses of four strains of this streptococcus, has been used in the treatment of a considerable number of patients acutely ill. The patient is first desensitized and then given an injection intramuscularly, preferably soon after withdrawal of cerebrospinal fluid. Subsequently, injections of from 10 to 40 cc. are given intravenously, intraspinally or intramuscularly, provided no reaction develops after the first injection. The injections may be continued for from five to eight days. If no good effects have been noted after third or fourth injection, however, the treatment should be discontinued.

Of 130 patients treated by Rosenow, eighty-five improved and forty-three showed no change. The symptoms were aggravated following the injection of horse serum in two acute cases. Unfortunately, serum has not always been effective in preventing the development of the deplorable late manifestations.

Recently, Royle working in Sydney, Australia, performed a series of experiments on goats to determine the function of the sympathetic fibers supplying the voluntary muscles, and whether that func-

tion had any relationship to the abnormal muscular condition met with in spastic paralysis. He suggests that the removal of the influence of the sympathetic innervation may be of value in certain cases in which disability has resulted from lesions of the corpus striatum, and from disturbance of the upper motor neurone. Hunter is convinced that the relationship of sympathetic innervation of voluntary muscle to muscular tone has been conclusively proved.

Sufficient corroborative work has been done to prove that these ideas are tenable—at least in part. If, as seems probable, the rigidity in the parkinsonian types of encephalitis is due to impulses traveling over the sympathetic system, it may be feasible and advisable to diminish, by surgical means, the crippling hypertonicity in cases no longer progressive.

DISCUSSION

Foster J. Curtis, M. D. (Boston Building, Salt Lake City, Utah)—Dr. Doyle should be congratulated for covering so wide a field in so concise a manner. The cases he has chosen to discuss emphasize the points he wished to bring out. How well he has shown the necessity of accurate history, as well as a painstaking physical and neurological examination, for, although a typical case is recognizable at a glance, the diagnosis of an atypical case is so difficult it is often missed.

In most of the cases I have observed in this section the following emotional reactions have been noted particularly: child-like irritability, sensitiveness, crying easily produced, mild depressions, although hopeful for a favorable outcome. They are rather easily influenced by their environment. Symptoms ascribed to an anxiety neurosis are not uncommon.

A great majority of these patients do not seem to lose any of their knowledge acquired previous to onset, but often it seems difficult and occasionally impossible to further increase their knowledge after the disease has been contracted.

The apparent difficulty with which certain voluntary movements or motions are initiated is of great interest, inasmuch as these same motions may be performed with comparative ease when once inaugurated.

While it is a common belief that the disease is incurable, it is the duty of the physician to do all in his power to make the patient as comfortable as possible. A subtle reassuring word combined with pleasant environment will produce a gratifying improvement in many of the emotional symptoms.

Supervision is desirable, especially in the younger patients, to guard against sexual abuses. Suicidal tendencies are not as common as would be expected, but are sometimes noted.

Although there is no efficient specific treatment at this time, let us hope that one will be found when the etiology and pathology of the disease is more clearly understood. I have noted temporary beneficial results from the hypodermic injection of hyoscine continued over a period of months, although I do not expect permanent relief from this medication. In some patients this drug produces no apparent effects, while in others the hypnotic effect seemed too pronounced.

For some time to come epidemic encephalitis will continue to be a fertile field for investigation.

Doctor Doyle (closing)—The research prompted by the ravages of encephalitis epidemica will result in contributions not only to our knowledge of this disease, but to a better understanding of the anatomy and physiology of the brain. The poor reparative power of the central nervous system precludes the possibility of therapeutic results in encephalitis once the disease has established itself. The only hope of these patients lies in the early recognition of the condition, and institution at once of specific therapy. At present, however, specific therapy is not to be compared in efficacy with Flexner's serum for the epidemic form of meningitis. In fairness, it must be said that the fault may lie rather in the site of pathology than in the lack of specificity.

CYSTS OF THE PROSTATE AND URETHRA*

By MILEY B. WESSON, San Francisco

Cysts of the prostate and urethra are not as rare as text books would have us believe. The first case of a cyst of the prostate was reported by Morgagni, who found it at autopsy in 1742. Modern pathologists never find these lesions, since they cursorily pass over the prostate and neck of the bladder in their routine examinations and go into great detail in describing the spleen, etc. Clinicians have reported isolated cases. These attracted little attention till Young in 1921 collected from the literature five cases of cysts of the prostate, added five from the Brady Urological Clinic and called the attention of the medical profession to this pathological entity and its treatment.

In this paper a thorough review of the literature has been made in an attempt to ascertain why lesions which have been seen by most urologists have not been correctly diagnosed and accorded proper textbook recognition; fifty-four case reports (including twenty-nine cases of cysts of the prostate) have been digested and assembled in tables, and four new and dissimilar cases of cysts of the prostate are briefly reported.

Following the invention of the simple endoscopes a confused nomenclature appeared, which Burckhardt in 1906 attempted to simplify by discarding the bizarre descriptions and classifying benign tumors of the urethra into: (1) fibromas, (2) myomas, (3) cysts and (4) polyps. The word polyp he used purely as a generic term, because of its freedom from histological significance, to cover the entire group of benign pedunculated or sessile intraurethral proliferations not included in the other groups. Hence, it became a "catch-all" term covering practically all excrescences about the vesical orifice. Randall in 1913, by his careful histological studies, described a definite entity as a polyp. These are not common, as his nine cases represented the total of one year's observation in one of our largest and most active endoscopic clinics. Without histological sections it is often impossible to differentiate them from the inflammatory tags seen about the vesical orifice in most cases of posterior urethritis. Two years later Pelouze removed from the group the lympho-cystic lesions which he thinks are neither polyps nor cysts, but are evidences of constitutional tuberculosis and should not be subject to local treatment. However, a perusal of the current literature shows that these two lesions are commonly confused with cysts.

Cysts of the urethra and prostate are generally grouped as follows: (1) echinococcus cyst, (2) cysts in connection with cancer of the prostate, (3) Cowper's gland cysts, (4) Littres' gland cysts, (5) cystic adenoma, 6) cystic dilatation of the utricle and ejaculatory ducts, and (7) retention cysts.

Cysts may be congenital or acquired. The acquired cysts are due either to a compression of the gland ducts, with consequent dilatations and filling

* Abstract of paper read before the Urological Section at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May 13, 1924.

with liquid or semi-solid substance, or to a vicarious development of mucous glands. The majority of the pedunculated cysts of the vesical orifice undoubtedly originate in the subtrigonal glands.

In children who do not void until the second or third day, a few drops of a yellowish mucoid substance preceding the appearance of the urine is pathognomic of a cyst of the utricle, which has ruptured spontaneously or by instrumentation.

There are no characteristic signs in the adult, the symptoms ranging from those of posterior urethritis to the urinary obstruction secondary to prostatic hypertrophy. Retention in a man less than 50 years of age, that is of sudden onset and is relieved by the passage of a sound or catheter, is indicative of a cyst. Most often there is frequent micturition, dysuria and difficulty which increases with the act and eventually results in acute retention. Polyps give similar but more pronounced symptoms, because they are of firmer consistency. Prostatic cysts lying against Denonvillers' fascia may interfere with defecation and cause hemorrhoids.

The cysts of the female meatus, presenting in the vulva and causing complete retention, are hard to diagnose, as they simulate a prolapse of the bladder or an intestinal hernia.

There is no difficulty in recognizing the intravesical pedunculated cysts with thin walls, since they are translucent through a cystoscope, if the light is behind the tumor. Those with thick walls simulate an Albarran's lobe, and in the past have seldom been recognized till a prostatectomy was attempted.

The so-called small cysts at the vesical orifice, which explode so spectacularly when fulgurated, are not true cysts but are lymphoid bodies that have undergone a cystic change and which Pelouze states should not be treated locally, since they recur in six to eight weeks. He described them as small, slightly pedunculated masses of tissue of a pearly white color with minute blood vessels traversing their surface. Apparently they are solid masses of tissue which undergo a cystic change and when ruptured exude a white substance. This description fits most of the polyps in the recent literature.

Cyst of the prostate may be ruptured by vigorous prostatic massage. Instrumentation will often puncture a cyst at the vesical orifice with the immediate alleviation of all symptoms, but in time the collapsed sac will refill.

Suprapubic and perineal operations have been resorted to in cases where the nature of the tumor was not recognized or its removal was secondary to a prostatectomy. In ordinary cases this method is too radical. The same objection holds for the galvanocautery or Bottini operation.

Intraurethral manipulation is the method of choice. By means of a cystoscopic ronguer, the cyst can be removed unruptured. Cysts have been permanently destroyed by means of the Nitze cautery at one office treatment without the use of even a local anesthetic and with no discomfort to the patient. With a cold snare the pedunculated tumors can be easily removed, but the base is left undestroyed, and there is danger of a hemorrhage. The simplest and most popular method is by means of the fulguration electrode. Mere perforations of the cyst and the emptying of its contents are not sufficient. The sac must be destroyed and the base well fulgurated. Otherwise there will be agglutination of the perforation and a reaccumulation of the fluid, giving the cyst the appearance of a somewhat collapsed sac. The patients in whom the cysts have been radically removed or completely destroyed have had no return of the tumors.

1275 Flood Building.

THE JUDGE CAVERLY DECISION

Of the many editorials upon Judge Caverly's decision in the Loeb-Leopold murder case that came to every editor's desk, that of the North American is most interesting. We quote that part of this editorial specifically of interest to physicians. The same general conclusion is featured in most of the editorials from the better class of newspapers.

"That part of the judge's decision which has met the widest approbation, perhaps, was his emphatic rejection of the mass of pseudo-scientific testimony of this nature produced for the defense by a group of $250-a-day alienists and psychoanalysts. 'It is,' he said, 'beyond the province of this court, as it is beyond the capacity of human science in its present state of development, to predicate ultimate responsibility for human acts. Similar analyses made of other persons accused of crime would probably reveal similar or different abnormalities. The value of such tests seems to lie in their applicability to crime and criminals in general. Judgment in the present case cannot be affected thereby.'

"This statement is obviously sound. There is no lawbreaker so sordid, no criminal so depraved that his responsibility could not be dissipated by acceptance of the misty theories which trace every human act into the remote past, pretend to explore the uttermost recesses of the human soul and becloud the evidence of acts with abstruse speculations upon predestination and free will in the realm of crime. Once such reasoning is admitted as a factor in the administration of justice, the doctrine of legal responsibility collapses. If carefully planned murder is to be mitigated in the eyes of the law as an unavoidable result of childhood inhibitions, adolescent dreams and lack of emotional control, why not the peculations of the absconder, the violence of the prowling footpad and the activities of the bootlegger?

"But inexorable logic requires deductions still more absurd. Grant the premises of the experts, and one is led to the conclusion that the arch-criminal, for whom there is no extenuation, is the man who kills another in the heat of sudden anger, from motives of revenge or in retaliation for real or fancied wrong; mercy is to be reserved for him who slays without cause and with long premeditation, and who can demonstrate that he is a criminal by choice and life-long inclination instead of through stress of untoward circumstance. His reliance is not to be on witnesses to his previous good character, but on witnesses to his innate depravity.

"Nothing in the procedure in our judgment, was more deplorable than the spectacle of the experts delivering their high-priced opinions to a skeptical court, and we can think of no greater disservice to a noble profession. It would be well, we think, for the societies which are the custodians of the honor of medicine and the kindred sciences to move for a general reaffirmation of the Hippocratic oath and its lofty requirements."

"I have known mothers who were college graduates to put urine in children's ears for pain. I have known fathers who were high school graduates to put warm cow dung on open wounds, while **I was at home thinking that I was the doctor in the case,"** says J. E. Dildy, M. D., in Texas State Journal Medicine.

EDITORIALS

WHO MAY TREAT PATIENTS IN A HOSPITAL APPROVED AS AN AGENCY OF SCIENTIFIC MEDICINE?

"Hospitals" are of many kinds for man and animals. There are those also for old shoes, furniture, and other inanimate objects. There are "doctors" of more kinds than there are "hospitals." Obviously the hospitals that physicians are interested in are those that serve as the agencies of scientific medicine. There are several varieties of these and there are several grades, from those that serve best to those that have little worthy excuse for existence.

Any hospital that purports to serve sick people certainly should fulfill certain fundamental requirements. These have been listed and discussed many times. *One of the most important fundamental requirements of any hospital that claims to be an agency of scientific medicine is that it shall be open only to those physicians adequately educated in the fundamental medical sciences.*

The test of such education is expressed in practically all civilized countries by the academic degrees of Doctor of Medicine and Bachelor of Medicine awarded by a worthwhile institution of learning. Such schools now require not less than seven years' work of college grade, and some of them even as much as ten years. Formerly the requirement for the M. D. degree, and for other academic degrees as well, was somewhat less rigid, and certain special allowances in conferring rights and privileges in the practice of medicine quite properly take these facts into consideration for physicians who graduated some years ago.

The political right (license) to practice medicine in most states is also based primarily upon this same educational requirement. In several states, of which California is one, the political right (license) to practice medicine recognizes this educational basis for license by one of its boards, but the law also authorizes other groups to practice with similar rights and privileges of the first board without anything like the same rigid educational requirements.

The lines of cleavage between those licensed upon a basis of adequate education (Doctors of Medicine) and the other groups are quite properly very wide apart. *They cannot now and never will be brought closer together.* The cleavage not only applies in the personal relation between the doctor and his patients, but it extends into every specialty and agency of scientific medicine.

If the state legalizes the inadequately educated to practice medicine, it ought to be logical enough to provide them with inadequately educated nurses, laboratory workers, hospitals and other substandard facilities they require to work with. From a professional standpoint, educated physicians have not and do not now oppose such steps. They do not object (as physicians) to osteopaths, chiropractors or any of the many other inadequately educated "doctors" having their own hospitals, clinics, nurses, x-ray and clinical laboratories, or whatever else they require.

What educated, ethical physicians do object to, and what they will not permit, are attempts to force them to recognize and connubiate, either directly with inadequately or freakishly educated "doctors," persons and groups, or indirectly through hospitals and other agencies of medicine. This is the reason why no educated, ethical physician will recognize in any way any practitioner whose license is not based upon education at least equal to that expressed in the M. D. degree from a good school.

This is also the chief reason why no such ethical physician will treat the sick in a hospital with less strict requirements for all doctors privileged to use any of its facilities. Certain groups of inadequately educated "doctors" who have gained the political privileges to license themselves to practice medicine by legislative enactment or vote of the people of California and other states, instead of by education, as other physicians have done, now demand *to be associated with and share upon equal terms with educated physicians the nurses, hospitals and other agencies of scientific medicine.*

This the public may rest assured they will not succeed in doing. **Any community can have as many varieties of hospitals as it wants, but the self-respecting, educated, ethical physician will patronize only those operated exclusively as agencies of scientific medicine under education and ethics in no essential or particular different from those governing the activities of physicians.**

All worthwhile national, special, state and local physicians, nurses, hospitals and other organizations are on record on the subject. Their actions are reflected widely in state laws, particularly as hospitals touch medical, nursing and other phases of approved education for those who serve in the broad field of medicine and health.

The important action of the American Medical Association on the point is provided in the following ruling passed by the Council on Medical Education and Hospitals, March 4, 1923:

"In order to receive and retain a position among hospitals approved for the training of interns, a hospital should admit to its staff only reputable physicians who obtained their medical training in, and secured the degree of Doctor of Medicine from, a medical school determined as acceptable by the Council on Medical Education and Hospitals of the American Medical Association. *This ruling must be enforced for every person permitted to treat the sick in the hospital or in any of its departments, except by nurses, masseurs or other like assistants when acting under the orders of a physician on the regular staff of the hospital.* Wherever a hospital, by legislative enactment or otherwise, is required to admit practitioners other than graduates of reputable medical schools, then these shall be in a building or buildings entirely separate from and in no way connected with the hospital other than through the non-professional services."

POSITION OF THE AMERICAN COLLEGE OF SURGEONS

In a letter, Doctor M. T. MacEachern, director of hospital activities of the College of Surgeons, takes the commendable stand that:

"Every hospital surveyed is required to hand in a roster of names of doctors privileged to practice in the institution. Each name is then verified through the American Medical Association directory. With definite knowledge of any hospital admitting non-medical or unqualified practitioners such as you mention, the institution will be imme-

diately taken off our approved list of hospitals. We stand right with the American Medical Association and the Council on Medical Education and Hospitals on the ruling they have made. Through the kindness of the Council on Medical Education and Hospitals, I have several copies of this ruling and send it out frequently when inquiries come in. I may also inform you that, as president of the American Hospital Association, I know that we will not accept any hospital into institutional membership that admits non-medical or unqualified practitioners to practice therein. Further, the Methodist Hospital Association has taken a very definite stand along the same lines. . . .

"Let me emphatically assure you that we are right behind you heart, body and soul in this proposition. If there is any hospital in the West admitting these unqualified practitioners, and on our approved list, on the acquiring of such definite knowledge I will take immediate action to drop them."

In other letters the "College" is firmly committed to a sane policy:

"Every hospital today must be so operated as to assure the public that they can obtain adequate, skillful and responsible medical services when ill. Numerous Supreme Court decisions in the United States hold trustees of hospitals responsible for the acts of their agents or employes, including all who practice therein. The Supreme Court of Ohio recently ruled: 'Whenever a hospital fails to exercise due and responsible care in the selection of its agents, physicians or others, it is liable.' Hence, as trustees, or guardians with a serious trust to administer, you must not be embarrassed in your selection of who shall or who shall not be given the privileges to practice in your hospital. A standard has been set for your guidance in this—a standard recognized practically the world over today. This standard provides that only competent and ethical doctors who are full graduates of medicine in good standing and legally licensed to practice in your state should have the privileges of your hospital.

"The American Medical Association, the American College of Surgeons, the American Hospital Association, the Methodist Hospital and all other organized and accrediting bodies today stand pat on the admission to practice in hospitals only of such persons as are duly qualified to practice medicine, as indicated."

THE POSITION OF THE AMERICAN HOSPITAL ASSOCIATION

The American Hospital Association still has a certain number of institutional memberships of hospitals who have non-medical practitioners on their staff. These members (hospitals) were, however, admitted some time ago when the records and the information available to the Association was not as complete as now and also when the policies of the Association were not so well defined as now. Objection has not been made to the practice of non-medical practitioners in the institution when such work was carried on under the direction and authority of the organized medical staff or under the direction and authority of a medical practitioner in charge of the case.

The only official action this Association has taken is expressed in a letter approved by the directors in March of this year:

"No one," says this letter, "not duly licensed by law should be allowed to prescribe for patients, and none such should be allowed to treat patients except under the direction and supervision of a competent and properly authorized physician. Even though some special type of service, such as osteopath or chiropractor, be recognized by law of the jurisdiction, a hospital is not required to permit such practitioners to practice within its walls. It still remains the duty of the hospital to exercise its judgment as to the qualification of the practitioners and to refuse such permission unless it is clear that education, training and ability are in accordance with approved medical standards as typified by the best opinion available."

Continuing the Association says in this policy letter:

"The breaking down of barriers established for the safety of the sick and injured is a risk which hospitals need not, and should not, take. Treatment must depend on proper diagnosis, and one who claims the *right* to treat patients based on a training in special methods of treatment alone is surely not competent to take charge of a hospital patient. Such seems to be the consensus of opinion of practically all, if not all, the important hospitals throughout the country. . . .

"Whatever may develop from the new medical cults, it is certain that their present methods of education do not provide adequate instruction in matters essential to proper diagnoses of disease and, at least until this requisite is fulfilled, a hospital should not recognize those so deficiently educated, however well instructed they may be in special methods of treatment.

"Whatever threats and assertions may be made by those seeking the permission to practice in hospitals or claiming the privilege as a right, it is believed that hospital authorities will be fully protected by law in their right to discriminate according to what they believe to be for the safety and protection of their patients.

"Anyone desiring to use a hospital, either as patient or practitioner, must conform with the requirements of the authorities charged with the proper conduct of the institution. Failing this their request may properly be refused."

With the positive statement from Doctor MacEachern, President of the Association, quoted above before us, we may confidently expect that the American Hospital Association will soon take a more unequivocal stand than the unsatisfactory one they heretofore have assumed.

POSITION OF THE AMERICAN CONFERENCE ON HOSPITAL SERVICE

This conference includes in its membership the Council of Medical Education and Hospitals of the American Medical Association; the American College of Surgeons; the American Hospital Association; the Bureau of Medicine of the United States Navy; the Medical Department of the United States Army; the United States Public Health Service; the American Institute of Homeopathy; the National Tuberculosis Association; the Catholic Hospital Association of the United States and Canada; the American Society of Industrial Physicians and Surgeons, and a number of national organizations working in the hospital field.

This great aggregation of national societies has unequivocally adopted the requirements set by the American Medical Association and the American College of Surgeons as quoted above.

Doctor Frank Billings, Honorary President of the Conference, and one of its founders, says in a recent letter that the "Conference believes that none except educated physicians and surgeons holding the degree of Doctor of Medicine from an acceptable college or university, and who are licensed to practice medicine in their state, will have the privileges of either staff membership or of treating patients in the hospital or any of its departments."

CONDITIONS IN CALIFORNIA

Both the League for the Conservation of Public Health and the California Medical Association have for some years extended the Principles of Medical Education and Ethics to hospitals and all other of the medical, health and welfare agencies with which they work and co-operate.

These moral forces, supported by the good hospi-

tals, by constant informative publicity and an enlightened public sentiment have so far been unusually successful in preventing backward steps in many hospitals and other agencies of scientific medicine. There is practically no *legal* control over most of the medical agencies, including hospitals.

There is one state board that has by law a limited control over certain classes of hospitals. The personnel of this board varies with the wishes of any Governor of the state. Without the slightest reflection upon any of its members, it may be fairly stated that none of them has the special knowledge and experience necessary to supervise or lead well planned hospital progress. For the same reason they are not well enough prepared to exercise the control that should be applied to all medical agencies.

There is also a Department of Institutions with a non-medical director who holds office at the pleasure of the Governor, which has much to say about all state hospitals. The Board of Control (a non-medical body) by holding the purse strings quite effectively controls all forms of state medical work.

UNENVIABLE POSITION OF BOARD OF HEALTH

The State Board of Health has limited control over the nursing educational feature of all hospitals engaged in such work. As many of the larger and better hospitals maintain schools of nursing, the requirements set by the health board should be quite influential.

However, right here we strike an interesting snag in our otherwise encouraging program. It so happens that the present members of the State Board of Health are all educated physicians. They are appointed by the Governor for certain definite periods, after which they hold office at his pleasure. They are also limited in their ability to maintain standards of nursing education by the vagaries of our peculiar laws. One of these laws, according to a recent ruling by the Attorney General, prohibits the board from refusing accredited standing to a school of nursing because the hospital admits inadequately educated "doctors" to its services. *There are hospitals with schools of nursing accredited by the board of health in which it is admitted that inadequately educated healers are practicing the healing art.*

Out of this situation has grown what many call the "drugless nurse" idea which is destined to travel far. Various groups of the licensed drugless healers are jubilant over the fact that they may have a hand in influencing the education (?) of nurses.

What a spectacle!

The Board of Medical Examiners, within the provision of an inadequate law, controls the licensing of educated physicians, drugless practitioners, midwives and chiropodists. They have certain disciplinary powers over their licentiates.

Boards of Osteopaths and Chiropractors control the licensing of "graduates" from their "colleges." The Pharmacists and Optometrists have their boards, and as stated above nurses are controlled to a certain degree by the health board. *There is no legal control whatever over x-ray, pathological and clinical laboratories, nor several other important agencies of medicine.*

So from the standpoint of legal control of the many agencies of health, California presents a sorry plight; the public being largely unprotected from incompetence, imposition and fraud.

However, the moral forces listed above have been so effective and so well sustained that there are less than five hospitals in the state operated for the inadequately educated. There are less than a dozen out of over 500 hospitals where any but educated physicians holding the academic degree of Doctor of Medicine may practice. Strenuous efforts have been and are being made in places to break down these moral forces, as recently illustrated in the Murphy Memorial Hospital debacle and the fight over the Long Beach Community Hospital. It can't be done, so long as the educated physicians remain honest with themselves and their patients.

ANY OF THE DIPLOMA MILL AND NEAR-DOCTOR GROUPS MAY BUILD AND OPERATE AS MANY HOSPITALS AS THEY PLEASE WITHOUT OPPOSITION FROM EDUCATED PHYSICIANS OR THE LAW AS IT NOW STANDS. BUT THEY WILL NOT BE PERMITTED TO PRACTICE THEIR CULTS IN SCIENTIFIC MEDICAL AGENCY HOSPITALS, AND THE TWO KINDS OF HOSPITALS CAN NO MORE BE SCRAMBLED THAN CAN A TRUE PHYSICIAN AND A CULTIST FIND COMMON GROUND UPON WHICH THEY CAN CO-OPERATE.

THE PLACE OF THE CLINICAL LABORATORY IN THE PRACTICE OF MEDICINE

Our "special article" in this issue (page 537) is upon a subject of vital concern to every public health and personal health physician. Doctor Woolley, from his broad experience as teacher and research worker and consulting pathologist, has projected interesting phases of the laboratory problem for earnest thought.

Not the least important phase of the laboratory problem is its expense to the patient or the community. This must be kept within reasonable bounds, as it may well be if we will utilize the pathologist as a consultant and require only such laboratory work as is essential.

THE HEALTH CENTER IDEA

Since the so-called modern health center was conceived and developed during the war, the idea has traveled a curious and a twisted road. The first part of this road was attractive and enthusiastically negotiated. Then the idea began to be twisted and turned, redefined, reclassified, and re-exemplified in "Health Centers" of many varieties, in many places, with many sorts of management. There came a time when the road began to be rocky and strewn with difficult boulders until during the last few years and months many of these theoretical panaceas have disappeared, others have changed their names and methods of activity, and others still occupy offices on dusty streets, with windows that have not recently been cleaned and which, in some instances, are still pasted with fly specks and war posters.

Apparently, a few "health centers" that were or-

ganized along sound lines by converting an alluring theory into practical idealism, have continued to do effective work and to grow in respect and confidence of a certain percentage of physicians and of the non-medical public. The original idea of the "health center" was one of those beautiful theories which appealed to everyone and seemed easy of accomplishment. It was known that the hundreds of legitimate as well as useless health organizations were expensive, overlapping in function and oftentimes directly injurious to each other. The idea of the health center was to amalgamate at least the worthwhile groups of these organizations into one body by an interlocking directorate with common executive officers, common funds, and one common source for the direction of all activity. If such an idea could have been carried out, it would have been a wonderful thing, but like many other theories it violates too many of the instincts of ordinary human nature to make it widely workable.

At the present time the term "health center" is getting a very bad name, not only by large numbers of physicians, hospitals and other health agencies, but also by a large percentage of the public in general. And it may be confidently predicted that within a comparatively short time "health center" will have disappeared from use. This, of course, is inevitable with any slogan that has as many definitions as there are people working with the idea and where most of these definitions have an interested application that is not always to the best interest of the public.

The vast majority of "health centers" have long since departed almost entirely from the original thought in the mind of the original promoters. Most of them are now hardly more than conference offices of groups interested, and more or less periodically active, in some one narrow phase of health. Others add, where they can, the practice of medicine, usually one narrow branch of medicine, and they hold office hours at irregular intervals.

The movement as a whole is no longer important enough to warrant serious consideration, but while they continue to operate, public health authorities should insist that they at least be required to occupy clean, well-ventilated space.

THE DIAGNOSIS OF DISEASE BY MECHANICAL DEVICES

Many commendatory letters and some criticism of the stand CALIFORNIA AND WESTERN MEDICINE has taken against the practice of medicine by inadequately educated unlicensed persons and government agencies, using scales, measuring-rods and tables of averages to make diagnoses, have been received and otherwise reported to us. The criticism was anticipated, and it was hoped that it would come.

A few of the personally interested critics want to know where we get supporting evidence for our position, and state that all the literature they have seen commends their work. From a large amount of scientific literature, as distinguished from the propaganda many of these earnest workers believe as they do the Bible, we will quote only two:

The Metropolitan Life Insurance Company, which must work right or lose money in the health field, after careful and painstaking investigation conclude in effect that *the only diagnosis of value is the one made after thorough personal examination by an educated physician.* Their work also shows that it requires just as much intelligence and skill to safely inform a person that there is nothing the matter with him as it does to classify or diagnose his diseases.

The British Medical Research Council has been for some years carefully and exhaustively studying the various mechanical methods of determining physical fitness. Their work is still going on, but progress reports come out from time to time, and some of these are already conclusive. Commenting editorially on the work and findings of the Research Council, as well as other investigators, the London Lancet says:

"The results of certain investigations conducted during the war gave rise to the hope that, by an appropriate treatment of measurements long familiar to physical anthropologists and physicians (measurement of body dimensions and of vital capacity), it might be possible to obtain simple and widely applicable methods of assessing physical condition. The Medical Research Council have collected then and since much data with the object of throwing light on this point, and though the whole of this material has not yet been analyzed, a sufficiently large sample has given negative results. Inquiry as to whether any other less familiar system of measurements or tests might serve to found a rational and accurate mode of judging goodness or badness of physique had led to equally disappointing results. **It seems now to be established on grounds of an analysis of measurements of young adult males, in adult women, and schoolboys of various ages and social class that the inherent variability of vital capacity within homogeneous groups of apparently healthy persons is so great that inference from deviations above or below the normal of a particular combination of measurements will rarely be of service in the assessment of individual cases."**

The bold-faced part of this important quotation covers quite well the opinion of the vast majority of educated, experienced physicians who are in a position to speak without the possibility of having their motives questioned.

INCORPORATING THE HOSPITAL

Not satisfied with securing laws that allow them to license themselves to practice medicine, certain insufficiently educated "near doctor" groups are quite active in attempts to require hospitals to accept their licenses in lieu of education as credentials to practice in these hospitals. Hospital owners and directors are at last becoming aroused over the situation and are instituting preventive measures.

So many requests for information and assistance are being received that we are republishing herewith an editorial from the October, 1921, issue of Better Health.

"We are in receipt of numerous requests for copies of Articles of Incorporation for hospitals of various types that will properly safeguard scientific standards and promote better medicine. Of course, there must be some variation in the Articles of Incorporation, depending upon the character of the organization and purposes of the institution. However, there are certain fundamental principles that should be embodied in the Articles of Incorporation of every hos-

pital. These essential features are covered in the following articles, which have been prepared by members on the Section on Medical Economics, Education and Hospitals of the League and the counsel for the League, and have been endorsed by the executive committee of that organization.

ARTICLES OF INCORPORATION

"Approved by the League for the Conservation of Public Health.

"The primary and permanent purpose of the —— Hospital is to construct and shall be to conduct a hospital that will zealously promote and protect the health of this community through its medical, surgical, nursing, laboratory, x-ray, dietetic, physiotherapeutic, and all other scientific, technical and administrative services, by equipping and maintaining each department with adequate facilities and personnel of competent caliber in compliance with the scientific standards and methods which modern medicine requires to fulfill its humanitarian mission of the promotion of health, the prevention and treatment of disease. That this scientific purpose may be always insured, none but duly licensed physicians and surgeons graduated as Doctors of Medicine from reputable schools shall be eligible to its staff membership or any other professional privileges, and the established ethics of the medical profession shall govern all of the scientific activities of the —— Hospital. Recognizing that a hospital can only increase its own efficiency and enhance its community value by advancing the medical education and science of those that serve therein, this hospital will constantly cooperate with hospital betterment movements operated and controlled by educated physicians, so that it may take and fill its place as a modern temple of health for the welfare of the community, the state, and the nation.

"And, in furtherance of the foregoing:

"To construct, manage, operate and conduct a hospital for the preventive, curative and other treatment of sick or injured persons, in accordance with the primary and permanent purposes hereinabove stated;

"To purchase, acquire, own, lease as lessor or as lessee, mortgage as mortgagor or mortgagee, to execute deeds of trust upon to secure any indebtedness, to hold and to otherwise deal in real property necessary and suitable as a site for a hospital building, or buildings, and necessary accessory buildings, together with necessary and convenient grounds for all of the foregoing purposes;

"To construct, purchase or otherwise acquire, own, use, operate, maintain, sell or otherwise dispose of hospital buildings and accessory buildings, including nurses' home, electric or steam power plant, ice plant, laundry, machine shop, carpenter shop, orthopedic work shop, sterilizing plant, incinerator, garbage plant, sewer system, cold storage plant, distilled water generator, mortuary and chapel, library, pharmacy, x-ray, chemical, clinical microscopy, pathological and other laboratories, physiotherapy, occupational therapy, therapeutic shops, reconstruction therapy laboratories, disinfecting plant, garage, in connection with, in relation to or in any way necessary to carry out the purposes hereinbefore enumerated;

"To purchase or otherwise acquire, own, hold, use and dispose of ice, drugs, chemicals, surgical equipment and appliances, automobiles, ambulances, furniture, kitchen utensils, or other personal property of every character necessary or convenient to carry into effect the above enumerated purposes;

"To purchase or otherwise acquire, own, hold, use and maintain, sell or otherwise dispose of all necessary equipment, apparatus, material facilities and appliances of every kind and character suitable or convenient for carrying into effect the foregoing purposes;

"To make, produce, manufacture, hold, own, use, sell or otherwise dispose of drugs, toxins, anti-toxins, serums, vaccines, and other kindred or specific preparations for cultural or therapeutic purposes;

"To buy, sell, own, hold, lease, mortgage, to pledge as the pledgor or to accept in pledge as pledgee, and otherwise to deal in or dispose of all kinds of personal property of every description;

"To borrow and loan money;

"To buy, sell, own, hold or accept in pledge as pledgee or to pledge as pledgor, or otherwise deal in or dispose of any securities or evidences of debt created by any other corporation or corporations;

"To establish, maintain, and conduct in connection with the operation of said hospital a school of nursing and to furnish adequate education and instruction for interns and technical assistants of all kinds, and to grant and issue diplomas and certificates to graduates who have complied with the educational requirements of this hospital, the standard educational institutions of this state and of the law;

"To receive gifts, donations, devises, legacies, and bequests from public-spirited, charitable, benevolent, and philanthropic persons and corporations, for the purpose of carrying into effect the said primary and permanent purposes of this corporation;

"To pay out of the net profits of this corporation to its stockholders dividends upon the subscribed, issued and capital stock thereof, in no event and at no time to exceed the prevailing rate of interest in this community charged by reputable banks to borrow on first-class secured loans thereof."

Many of the newer hospitals have utilized these articles, and other and older ones have incorporated the basic principles in their constitutions, by-laws, and other legal papers.

Several of the hospitals now in serious trouble were warned of their dangers. Several new hospitals recently incorporated have made the mistakes of incorporating without protecting themselves, or their patients. Some of them will find their carelessness quite expensive in the end.

AFTER ALL, CALIFORNIA DOES NOT MONOPOLIZE MEDICAL PROBLEMS

The following editorial from the journal of the Indiana Medical Association says in other language what many medical publications are intimating in less vigorous language. It is our understanding that the problem in Indiana has since been adjusted by the Board of Public Health withdrawing from the practice of medicine by clinics or otherwise.

"Heretofore we have had occasion to remark that the economic side of the practice of medicine has no greater foe than the public health service which insidiously, though none the less surely, is beginning to assume nearly all of the functions of the private practitioner of medicine. It is a debatable question whether state medicine will prove satisfactory even for the care of the indigent, but at all events we are drifting in that direction, and the medical profession is permitting itself to be, not only the injured party in this transformation, but the one which, by means of its present apathy and disinterestedness in the subject, is helping along the coming of the evil day when state medicine will be a fact rather than a theory. For several months there has been some controversy with our own Indiana State Board of Health, concerning certain practices on the part of the board that we think are infringing upon the rights of private practitioners of medicine, and that overstep the bounds of what ordinarily is considered public health work. A protest has been filed with the board by some representative physicians of Indianapolis, and in an early number of The Journal we shall publish this protest along with the answer on the part of the board. Perhaps it is pertinent to suggest, as we often have done before, that it is high

time that the various agencies having to do with medical work in the state of Indiana, whether relating to teaching, practice, or public health work, should get together in a spirit of co-operation to accomplish the best results without treading upon each other's toes or minimizing the good secured by antagonizing each other. Up to the present time, it would seem that the State Board of Health draws no distinction between those which clearly are public health matters and those which many of us believe have nothing to do with public health matters. A better understanding of this whole situation is needed in order to bring about that spirit of co-operation and helpfulness required for the development of everything pertaining to health, whether it be public or private."

ADVERTISING

Public opinion is rapidly getting a new idea of the value and uses of well-designed advertising matter. In many of the leading magazines of this country the most valuable information contained in them is in the dignified, careful wording and informative copy furnished by advertisers occupying paid space. This is coming to be more and more true of advertisers in medical journals as well.

Worthwhile acceptable advertisers no longer, as a rule, waste their paid space by extolling the superiority of their products over those of the other fellow. They make a dignified, and, if they are wise, truthful appeal for their products, regardless of what anyone else may say, based upon their merits, as they honestly believe them to be.

California and Western Medicine encourages wherever it can this form of appeal by its advertisers, and we believe that readers will find profit to themselves in carefully perusing the advertising pages, as most of them already do in looking over and reading many other current non-medical magazines. Members will often secure information of interest and at the same time *always* increase the value of California and Western Medicine as an advertising medium, and thus decrease its cost, as reflected in annual dues, by filling out coupons or sending for other literature when such offer is made by the advertiser. Some advertisers still interpret—we think unwisely—the value of advertising to them by the response they get from coupons published in paid space.

HOSPITALS AS AGENCIES OF SCIENTIFIC MEDICINE

On account of the local hospital problem at Whittier, already discussed in California and Western Medicine, Doctor H. P. Wilson, member of the board of directors of that hospital, sent a questionnaire to the secretary of the county medical society of each county. In it he asked two questions: "(1) *Is there any osteopathic or chiropractic hospital, managed and conducted by these people in your county?* (2) *If not, into what hospital in your county are the osteopaths and chiropractors permitted to practice, and under what conditions?*"

In brief, the various answers are as follows:

Doctor Pauline Nusbaumer of Alameda County says that there are no chiropractic or osteopathic hospitals in the county. Out of eight of the leading hospitals, six do not permit osteopaths to bring or give treatments to patients; one allows osteopaths to give treatments if requested by one of the regular physicians.

Doctor J. O. Chiapella of Butte County answers no to both questions.

So does Doctor L. St. John Hely of Contra Costa County.

Doctor C. L. Terrill of Glenn County answers no, and so does Doctor Lawrence A. Wing of Humboldt County.

Doctor Francis P. Elliott of Imperial County says that there are no osteopathic or chiropractic hospitals, but osteopaths are allowed in —— hospital.

Doctor W. H. Morse of Kern County says that osteopaths who are licensed physicians and surgeons are permitted to take patients to their hospitals.

Doctor G. S. Martin of Lassen-Plumas Counties answers no to both questions, and adds that "there is one chiropractor, no osteopath, and one Abrams' believer in both counties."

Doctor Harlan Shoemaker of Los Angeles County says there is one osteopathic hospital owned and controlled by osteopaths in the county, and "to the best of his knowledge there is no other hospital which accepts patients from osteopaths, and most certainly not from chiropractors."

Doctor P. J. Bowman of Mendocino County ananswers no to both questions.

Doctor Brett Davis of Merced County answers no to both questions, and so does Doctor H. R. Coleman of Napa County.

Doctor Rowland P. Yeagle of Orange County says that there are no osteopathic or chiropractic hospitals in the county. Chiropractors are not admitted into the hospitals at any time, but that osteopaths through referred work sometimes get into some of the hospitals.

Doctor Robert A. Peers of Placer County answers no to both questions.

Doctor Thomas C. Card of Riverside County replies that there are no osteopathic or chiropractic hospitals in the county. "At the present time osteopaths have been admitted to the Community Hospital, but this privilege has only been taken advantage of occasionally." He says that the board of directors have recently passed a resolution prepared by the Council on Medical Education and Hospitals of the American Medical Association which specificially prohibits any but adequately educated physicians practicing in an accredited hospital. This they intend to enforce.

Doctor E. J. Holland of Sacramento County answers no to both questions, as does Doctor C. W. Merrill of San Benito County.

Doctor H. S. Chapman of San Joaquin County answers no to the first question, and states that osteopaths who have physician and surgeon's license, "I am sorry to say are admitted into both hospitals. Chiropractors are not permitted to practice in the hospitals."

Doctor William O. Calloway of San Mateo County answers no to both questions, and adds "nor are they allowed to practice in our hospitals under any consideration. This is something that the Medi-

cal Society of our county would not tolerate, nor do I imagine it would be tolerated by the society in any other county."

Doctor G. David Kelker of San Luis Obispo County answers no to the first question and says in reply to the second, "There is, however, a sanatorium to which the osteopaths, chiropractors, and naturopaths seem to have permission to practice and to which they send many patients. I do not know of any other hospital in the county in which the osteopaths and chiropractors are permitted to practice."

Doctor Philip C. Means of Santa Barbara County answers no to both questions.

Doctor H. G. Watters of Santa Cruz County answers no to both questions, and so does Doctor C. A. Mueller of Shasta County.

Doctor E. J. Eytinge of San Bernardino County answers no to the first question, but says: "The —— hospital of —— and the hospitals in San Bernardino are open to osteopaths. I have never heard of a chiropractic taking a case to a hospital, but I have no doubt that as far as any treatment that is legal for a chiropractic to give, such a case would be admitted as are the osteopaths."

Doctor L. H. Redelings of San Diego County answers no to both questions, and in speaking of the second question adds: "I might qualify this last statement by saying that, to my knowledge, on a few occasions I have seen osteopathic physicians in some of the small private sanitoriums, but this is by no means the rule in San Diego County and is not countenanced by the San Diego County Medical Society."

Doctor A. V. Doran of Solano County answers no to both questions.

Doctor N. Juell of Sonoma County says there is one hospital run by an osteopath, and that one osteopath is on the staff of another hospital, and still another practices in a number of hospitals.

Doctor E. R. McPheeters of Stanislaus County answers no to both questions, and adds: "For your information there are six hospitals in this county, and none of them allows any but regular M. D.'s. We never heard of an osteopath or a chiropractor conducting a hospital."

Doctor Norman C. Paine of Tulare County says no to the first question, and answers the second one by saying: "The osteopaths, with a physician and surgeon's license, do take their patients into some of the hospitals or have surgeons do so."

Doctor D. L. Hood of Tuolumne County answers as follows: "Osteos and chiros can send their patients to one of two private hospitals in this county, *I presume*. Our county hospital is reserved for paupers only, where the county physician treats."

Doctor Lela J. Beed of Yolo County answers no to both questions and says: "The only such hospital I know of is a small one owned and conducted by an osteopath and a supposed chiropractor at —— in Colusa County. The Woodland Sanitarium permits only reputable physicians to have patients in the hospital."

Doctor A. L. Miller of Yuba-Sutter Counties answers no to both questions.

ANIMAL POISONS

The interest in poisons and agents of animal origin in their varied relations to medicine continues unabated from ancient times down to the present day. It can easily be seen why this is so. The aboriginal mind, undoubtedly impressed with the striking effects of these products and the animals elaborating them, ascribed to them powers, well-nigh supernatural, whether from superstition, or for utilization of them in its struggle with other creatures of this globe. In fact, certain of the products or their organs became the objects of religious worship. Aboriginal medicine, if such it may be termed, had its day. Refined modern medicine is having its own, seeking to unravel, and to master the virtues of, these agents. Truly the advance of the modern investigator over the simple curiosity of the aborigines has been great. Flury of Würzburg calls our attention to the attainments along this line, pointing out especially the nature of the constituents that have been isolated from animal products.

Striking, indeed, is the array of constituents in animal poisons. Some are definite chemical compounds, others are well-characterized chemical substances, still others, however, are ill-defined. Flury enumerates the following: formic acid in bees, picrotoxin in cocculus indicus, cantharidin in Spanish fly, proteoses in snake venom, hirudin in leeches, oxyphenylethylamine (tyramine) in saliva of cephalopods, bufotalin and bufagin (epinephrine-like in its action in toad's skin. Most intestinal worms give off poisons to the body. The eggs of eels, starfish, spiders, beetles, bees, turtles, frogs, snakes, and certain fishes are toxic, but the nature of the poisons is unknown. To the chemically unknown and unisolated class may be added toxins and antitoxins, the extracts of several endocrine glands (pituitary, testis, ovary, parathyroid, and perhaps thymus and pineal). The few endocrines whose active constituents are known are the adrenal and its epinephrine, the thyroid and its thyroxin, the pancreas and its insulin. The brain, too, has an active constituent, namely, kephalin, a powerful accelerator of blood coagulation. The urine is well known to be toxic, and the blood of one species is poisonous to another, and tissue extracts in general possess toxic actions. Among toxic serums should be mentioned especially eel, human and beef serums. Nor are these products mere curiosities or poisons; they have helped to reveal biological phenomena of fundamental importance. Anaphylaxis began with Magendie's toxic injections of egg-white into animals, and received its name from Richet's experiments with the poisons of the sea-anemone, an animal-flower that lives in the sea. Recently, Ackerman has isolated tetramethylammonium hydroxide from the sea-anemone, a compound which possesses a curare-like action. Then there are the hemolysins, agglutinins, precipitins, etc., all animal poisons.

Not all animal poisons are poisons in the ordinary sense of the word, i. e., injurious to health or destructive to life, although any one of the animal products may become so if used in overdosage. For example, powdered thyroid and thyroxin within certain limits act beneficially, but in overdosage they tend to produce goiterous phenomena. According to

the viewpoint, goodness may even emanate from snake venoms. In this connection, it is interesting to note that Brazil conducts a snake farm and institute for the production of venoms in order to produce anti-venom serums. Apparently, snakes compel scientific investigation, mitigating, in this way, their evils in other ways. Leeches used to be very popular, 7,000,000 having been used annually in London, and 10,000,000 in Paris. An active constituent in the cervical glands of these animals is hirudin, which prevents the clotting of blood. Harmless as it appears, the leech has been used, nevertheless, as an instrument of suicide. The pharmacologist, Binz, described the case of a young lady in Paris who attempted suicide by inducing free hemorrhage with a number of leeches. Having bought fifty of them, she undressed completely and applied them to her body from the knees to the heart. The creatures having satiated themselves dropped off, but the bites continued to bleed, and the lady was found lying on the floor in a deep swoon. Thus it seems that animal poisons and products possess power for evil as well as for good, as the case may be, and the more is known and understood about them the better for humanity and the animals themselves.

Whereof the unabated interest and labors continue, and the results obtained seem to justify the effort. Many questions, however, still remain unanswered. Interesting speculations have been made and will continue to be made about animal poisons. Has anyone yet been able to explain accurately the inocuousness of the violent poisons for the animals elaborating them (for example, venoms for snakes); the rôle and function of the constituents in the endocrine glands, if not the organs themselves; the purpose of active constituents not only in animals, but also of alkaloids, glucosides, etc., in plants?

Flury, F.: Klinisches Wochenschrift, 1923, 2:2157, "Animal Poisons in Their Relation to Medicine."

THE ANNUAL REGISTRATION OF DOCTORS MOVEMENT

This question is an old one. It has been actively revived as an outgrowth of the "Diploma-Mill Scandal." It has been and is now being actively promoted in several states.

California and Western Medicine has not as yet taken an editorial stand in the matter, and will do so only when the policy of the California Medical Association has been decided. Unless we miss our guess as to the direction of political winds, it will be necessary for the California Medical Association to take a stand and to request the League for the Conservation of Public Health to promote that stand in the next session of the legislature.

In the meantime the columns of California and Western Medicine are open to a discussion of the subject by members and worth-while organizations. Physicians are not a unit at present in their opinions on the subject. When they have heard the arguments for and against the movement, we can probably get together and present a fairly solid front for what seems best for the welfare of sick people and, therefore, for unselfish physicians.

In making up our minds, we must be careful not to confuse the issues between *registration* and *taxation*. They are entirely separate problems, but attempts have been made to tie them together because the vast majority of physicians are known to be definitely opposed to the special tax, and the California Medical Association is definitely on record to that effect. We suspect that the opinion may not be so unanimous as to the advisability of the annual registration of doctors.

NEW YORK'S ACTION

A bill providing annual compulsory registration of doctors was defeated in the recently adjourned New York legislature. The doctors were so divided on the bill that two separate and opposing groups presented their claims quite aggressively at Albany.

If a sufficient number of our members are interested enough to make the request, California and Western Medicine will abstract the extensive record of the arguments presented on both sides of the question.

THE SITUATION IN ILLINOIS

The May issue of the Illinois Medical Journal discusses the subject editorially under a heading of "Why Illinois Doctors Oppose Annual Re-registration."

The editor first calls attention to the situation in Connecticut which "has a medical population of 1727 licensed physicians. The state has had an annual re-registration law for five years. The registration feature did nothing to purge that state of quack doctors and those holding fraudulent diplomas."

The objections to the requirement are summarized under twelve headings:

"First. The principle is wrong; it savors of autocracy, which latter is repulsive to American ideals.

"Second. Because of unpleasant experience with the first director of the Department of Education and Licensure, a layman and an autocrat of the most pronounced type, who no sooner discovered the autocratic powers that fell within the scope of his office than he attempted to put over a re-registration law, one of the provisions of which read:

" 'In every proceeding under the provisions of this Act an averment that the defendant at the time of the alleged offense was without the required license or certificate of renewal of registration shall be taken as true, unless disproved by the defendant.'

"This paragraph would represent Bolshevism in action.

"Third. A re-registration law would serve to beat practitioners into submission to those 'wise social experiments' or into inocuousness by denying him the right to practice his profession.

"Fourth. A re-registration law would act as a legislative club to beat the practitioners into submission to panelization or to render them inocuous by taking away their licenses under the police power of the state (Dr. Dent vs. State of West Virginia, 129 U. S. Reports, page 114, year 1889).

"Fifth. It nullifies the license already granted a doctor to practice medicine in perpetuity and substitutes, therefore, a year to year license.

"Sixth. The present registration in the County Clerk's office is sufficient.

"Seventh. The record of every doctor licensed to practice medicine in Illinois is on file in the De-

partment of Education and Registration at Springfield.

"Eighth. It is class legislation, in that the profession is to be charged a fee to create a fund purging the state of illegal practitioners when, as a matter of fact, this duty devolves upon the state and not upon the medical profession. Ridding the state of illegal and incompetent practitioners is a measure purely in the interest of the people who should pay for it, and not have it placed as an extra tax upon the medical profession.

"Ninth. It is unnecessary, as the police power already exists for the control of practitioners not duly licensed. More law is not needed, but better enforcement of existing law is.

"Tenth. It is demeaning to a great and noble profession in its requirements as to filing of photographs. Why not finger-prints?

"Eleventh. It will cause expense and inconvenience, with no proportionate return to the public or to the profession.

"Twelfth. It is a humiliating and absurd proposition, this annual re-registration and the fee of $2 for the privilege of announcing to your beloved people who have known you to be a doctor for a score or more of years, that given life and health and the gracious permission of the clerk to whom you proffer your $2 fee, you expect to continue to be a doctor for the ensuing year."

California and Western Medicine will be glad to publish short impersonal discussions of any phase of this question.

WITHIN THE LAW

This well-known expression as applied to finance and business in general is coming into use extensively in the practice of medicine. The Medical Practice Act and its various court interpretations constitutes the law for those who treat the sick—or the well for that matter. There are an ever-growing number of "doctors" who, with the cooperation of very clever attorneys, skate just as close to the edge of this law as is possible without entangling themselves in its meshes.

Only those whose business it is to know about the various schemes of keeping within the law have an idea of the variety and ramifications of these processes or of the alleged doctors who are so active in the field. Even with the very best of legal advice they are constantly entangling themselves in the meshes of the law, and the results are to be seen in the press dispatches almost any day one cares to look.

One interesting angle being much overworked by these people is that of education. Hundreds of people are practicing medicine in California and avoiding the consequences of the law by stating that they are not practicing medicine, but that they are educating the public and that they are only showing them how to carry these educational edicts into practice.

Another large group are the "beauty specialists." Many of these are little better than procurers for licentiates to practice medicine. Some of them use the word "Doctor" in front of their names, particularly when talking to people who don't know any better. They do everything themselves that they believe they can get away with without falling afoul of the legal authorities, and they delegate, upon a commission basis, other things to persons licensed to treat the sick. We have before us at the present time an extreme example of one of these "doctors" who is advertising extensively in rather clever ways, and doing a large business among people in California who should know better.

In her office is carried on the so-called "scientific skin rejuvenation" and other forms of rejuvenation. The skin is examined by an ordinary hand magnifying glass and a diagnosis is made, which is, of course, always what would be expected from such an examnation. Methods of skin-peeling, plumping, massage, etc., are carried out. The "doctor" in charge told an alleged patient recently that "she got a teacup full of vaseline from the face of a patient who had been mistreated by another beauty specialist." This "doctor" claims to have a peeling process that "can remove all scar tissue left as result of operation or otherwise." She charges $150 for a treatment and $10 a visit thereafter.

The notorious Steinach treatment for women is arranged for through this joint and the "doctor" claims that she has the work done by a roentgenologist for $500 per patient. If the patient is a male and wants rejuvenation, she claims to be in equally intimate contact with another surgeon who will do the usual transplantation. In other words, this "beauty specialist" stays "within the law" herself and makes financial and legal contacts with others who take care of the things she cannot do herself without becoming a law violator.

This is only one of scores of situations all slightly different, showing how enlightened people of California are being buncoed wholesale in all matters pertaining to health.

GOVERNMENT PRACTICES MEDICINE

Few of us who are busy with other affairs realize to what extent and by what a variety of methods government is practicing medicine. National, state, county, and municipal governments are all "doctors" to a certain percentage of the population, and the services rendered include prevention and treatment of disease as well as medical education and medical research.

There is no well-established policy or uniform method as to just what and how much medical work government should do. Neither is there uniform agreement among our people as to what and how much "doctoring" should be by government. One extreme group of persons—and it is a growing group—believes that government should manage and conduct through its salaried agents all and every phase of the practice of medicine and public health. The only place where this has been actually undertaken is in Soviet Russia. The other extreme group of citizens are opposed to government, as such, engaging in the practice of medicine and public health at all. They believe that government should purchase its required health services from

those prepared to furnish them, just as they purchase other supplies and services. Between these two extremes, with hundreds of schemes and the usual confusion, inefficiency and tremendous expense, will be found the constantly changing, moving line of what government is doing and what is left for other people to do.

Physicians, through their national organizations, have endorsed public health, quarantine, and care of certain classes of the sick as a legitimate government function. They believe that government should not and, in fact, cannot effectively practice personal medicine. This question, usually spoken of as "state medicine," "socialized medicine," "nationalized medicine," "paternalism in medicine," or "political medicine" is a burning one in the hearts of most physicians. They have opposed it since our government was organized and they still oppose it because they do not believe it is best for the people, and, in addition, they are also opposed to it because it is a dangerous form of socialism.

Whatever the merits of the situation, no serious observer can disguise the fact that we are moving faster toward complete socialization of medicine, including public health, than we are toward the socialization of transportation, or any other great essential utility or service—except that of education. This may be by accident or design. In any case, it helps socialism because the mistakes in medicine and public health are easier to hide than they are with railroads. In fact, it is easy after a few years to build railroad tracks over the buried mistakes of political medicine without more than a few realizing the tragedy of the situation.

Statistics Make Startling and Educative Contrasts!—Per capita statistics open into view humanity's throbbing idiosyncrasies when they point out such antipodal contrasts as that we spend $2.58 on diamonds per person and $1.10 on books; $4.15 worth of near beer, and only 22 cents for dentifrices. Only one in ten people in the United States brush their teeth, but we consume enough tobacco per year to pay off the interest on the entire public debt! Continuing the discussion on this subject, Mrs. Christine Frederick (The Annals) says: "We spend only 6 cents per capita annually for ink and $1.30 for pickles. We spend 52 cents for professional and scientific instruments, and $11 for advertising. We spend 61 cents for condiments, and only 57 cents for typewriters; $27 for joy-riding, pleasure resorts and races, and only $1.29 for religious work. We spend 51 cents for firearms and shells, and 18 cents for fountain pens and steel pens. We spend $28 for luxurious services, and $2.20 for pianos, organs, and phonographs. We spend $5 for jewelry; 5 cents for artists' materials, and 15 cents for artists' finished work of various kinds. We spend $3 for ice cream, and 8 cents for professors' salaries; we spend $45 for luxurious foods, and $10 on public schools. We spend $9 for perfumery and cosmetics, and 30 cents on mirrors. We spend $3.75 on toilet soaps, and 90 cents on eggs. We spend 65 cents on coffins, and *11 cents on health service.* We spend 10 cents on regalia, badges, and emblems, and 2 cents for engravers' materials. We spend $2.10 on patent medicines and 32 cents for watches, 45 cents for toys and $3.20 for cakes and confections. We spend $8.15 for theater admissions and club dues, and $1.85 for shirts. We spend 1 cent on theatrical scenery, and 25 cents on sporting goods. We spend $21 on automobiles and parts, and $55 on men's clothing. We spend $11 for candy and $41 for meats. *We spend, finally, $30.73 for government expenses.*

Birth Control Here Now—Official figures show that 105,900 of 846,700 married women of California are childless.

Medicine in the Public Press

A Much Appreciated Tribute to Physicians by a Business Man—The following boxed statement over the signature of John Breuner of the John Breuner Co., high-class furniture dealers of San Francisco, occupies a prominent and valuable place in his page advertisements in San Francisco newspapers:

"Our Physicians and Surgeons—

"I asked a noted physician the other day what he liked most about California. He said—'The outstanding thing which impresses me more than anything else is the unselfishness and generosity of the physicians and surgeons I have met here. Your doctors seem to have lost all thoughts of themselves in their desire to benefit humanity. No matter what the case may be, your doctors are doing their very best for all, but especially for the poor people who cannot afford to pay for professional skill. The San Francisco bay section is fortunate indeed to have these very wonderful men who do not ask—"What am I going to get out of it, but rather, what can I put in."'

"It was a new thought to me, and I feel the physicians and surgeons should know that they are being admired and complimented. It only goes to prove that there are finer things in this world than dollars. Our physicians and surgeons furnish us with a new inspiration.

"JOHN BREUNER."

Do Grapes Cure Syphilis?—A reader who does not supply his name sends us a clipping from the health column of a newspaper that is doing its bit in educating the public in medicine and public health, from which we cull the following:

"Los Angeles, August 18, 1924.

"Dear Dr. ——: To give proof to 'The Origin of Diseases' in the ——, I wish to state: For the last fifteen years I lived on unfired food and fruits, have every-day exercise and air baths. About five years ago I contracted syphilis, and as it just was in time when the grapes are on the market, I started in (instinctive) and *ate from two to four pounds grapes every day* and nothing else, except a few crackers. Besides this *I put on a truss every night* and had three times the week Kneipp Guss (the writer probably means one of Father Kneipp's therapeutic treatments).

"So I was waiting for the time when that terrible disease called syphilis get me by the throat and eat me up, piece for piece—but nothing happened. After four weeks passed, little pimples come up on some part of the body but they disappeared in three to five days. That was the healing process—and few months after the inflammation of the eye, the blood rushes, and that copper red pimples—all gone.

"The king of all diseases departed without losing any time, because he cannot find the soil, where he can grow on.

"Respectfully,

"FRITZ ——."

Would You Not Like to See These Doctors' Names?—In an amazing full-page illustrated newspaper article about the "rejuvenation" work of Doctor Clayton E. Wheeler of San Francisco and Los Angeles, by Mr. Charles E. Kurtzman, *Publicity Director California Theater,* the statement is made that "Wheeler has numbers of letters" from physicians of "considerable note." It would be interesting to see these letters. The publicity director of the California theater further says that, "though still a young man, comparatively, he *has* (italics ours) enjoyed the highest standing in the medical profession in California. Dr. Wheeler was formerly Stanford house surgeon at San Francisco Hospital; clinical instructor Stanford University, and assistant gynecologist, San Francisco Hospital. It is not an extravagance of speech to state that he today is unquestionably the busiest and most popular physician-surgeon in America."

Fees—Mr. G. N. McCain (Philadelphia Ledger) investigated the question of alleged exorbitant doctors' fees and found, says the Ohio Medical Journal, that, for example:

"John W. Mackey, who knew the ups and downs of life

from miner's cabin to palace, in 1893 contested his surgeon's bills, amounting to $12,500, for taking a bullet out of his back.

"About the same time, he paid an attorney $26,500 for securing the probate of the will of a deceased millionaire for whom he was executor."

Here is what McCain concluded after making the investigation:

"Physicians' incomes today, just as they were a quarter of a century or more ago, are overestimated by the public.

"It is a subject upon which there is a vast amount of misinformation.

"A great deal of charity work is done by every doctor, of which the world knows nothing.

"Large fees, in the case of the very wealthy, counterbalance this class of service.

"There are very few doctors who are not humanitarians; men with big hearts and kindly souls.

"They 'temper the wind to the shorn lamb.'"

More Education About Cancer—A recent issue of the Dearborn Independent carries a picture and brief life history of Doctor Bloodgood and a curious sort of a poorly written interview by John D. Anderson on cancer. The interviewer makes the doctor say many things that all physicians will endorse. Some of the alleged quotations also invade the field of the problematical.

Real and False Health Advice—In a recent broadcast talk upon this subject, the New York Commissioner of Health said:

"In looking through the pages of magazines and newspapers one is impressed with the large amount of space which is devoted to health articles and to advice on how to keep well. Many of these instructions are scientifically correct and beneficial if carefully followed out. Unfortunately, manufacturers of cure-alls, recognizing the popularity of such articles, have not been slow to copy the same style.

"Under these circumstances, how is the public to recognize the true from the false and thus be able to protect itself from the snares of the faker?

"If you see a signed health article in the reading pages of a well-known magazine devoted largely to good fiction, you may be reasonably sure that the information given is correct; a really good publication cannot afford to jeopardize its reputation and so must be careful to know the professional standing of everyone who writes for it. Beware, however, of the magazine which rides a hobby or which is the mouthpiece of a cult or sect. There is no one set rule or method of curing all ills and the more thoroughly one learns this fact the less likely will he be to follow false prophets.

"It is far harder to give a general rule regarding health items in newspapers. Many of them carry syndicated columns written by well-known health authorities, but at least one large metropolitan newspaper has regularly carried a column written by a man of no professional standing. The best was to find out whether the writer of your favorite health column is a man of high standing or not is to ask your own physician or your health officer.

"There is one type of health column which is vicious and extremely misleading, namely, that kind which leads you to believe that you can make up simple remedies at home by mixing a few well-known ingredients purchased at the drug store. Invariably it will be found that one of these ingredients is not a common well-known substance but a secret preparation manufactured by the concern inserting the advertisement—for that is what it amounts to. Don't allow yourself to be taken in by this simple trick.

"Place little faith in the published statements by pugilists, popular stage favorites, ministers and others in the public eye on health, beauty or the beneficial effect of remedies. They are paid well to be partial.

"Remember, moreover, that what is one man's meat is another man's poison. What has benefited one person may be the worst possible remedy for you to take."

The Sheppard-Towner Law—Federal and state governments have expended $1,688,047.12 for the purposes of the Sheppard-Towner Act during the first months after its passage.

Federal grants to the states during this period for maternity and infancy work totaled $1,046,523.56. State appropriations made to match federal funds totaled $641,523.56. In 1922 payments were made to forty-three states, twenty-eight of which matched the federal grant in full or in part. In 1923 forty-one states received grants for maternity and infancy work, thirty-five of which matched the allotment in full or in part. Kansas, Illinois, Vermont, Maine, Massachusetts, Connecticut and Rhode Island have not accepted the provisions of the Act.

Administration of the Sheppard-Towner Act is under the control of a federal government bureau in Washington. In a recent report issued by this bureau, claims are made that they have:

"Stimulated state activities in maternal and infant hygiene.

"Maintained the principle of local initiative and responsibility.

"Improved the quality of the work being done for mothers and babies by disseminating through a central source—the federal government—the results of scientific research and methods of work which have been found to operate successfully.

"Increased state appropriations with the passage of the Act."

"Activities under the Act," says the report, "have included the employment of physicians, public health nurses, dentists, dietitians, health teachers and social workers, on staffs of health departments; education of the public through lectures, demonstrations, exhibits, films, etc.; maternity consultations or centers; mothers' classes, correspondence courses and other forms of work for mothers; training and supervision of midwives, health conferences; dental clinics; nutrition classes; inspection of maternity and children's homes. Much of the work has been directed toward taking to the rural mother and baby the health facilities which the city mother has had for some time."

In other words, the practice of medicine in some of its most difficult phases with the federal and state government as "doctors."

Curing Cretins—Some editors, as well as some serious reviewers, have been "sold" to the "new discovery" that cretins can be benefited by a "form of gland rejuvenation!"

Free Clinics to Prolong Life—Some of us have become excited over the speed with which figures and slogans are prolonging life. Each statistician goes his predecessor one better, or five or ten years better, in announcing longer life with such frequency that we are all liable to be centenarians by Christmas. The chance to take advantage of already prepared publicity has at last—rather tardily—borne fruit with a new line of "life-prolonging clinics." They have found an "angel" and the preliminary announcements sound like an echo of all the health slogans that have passed hurriedly across the stage of life during the last few years. They are going to do precisely the same things that others have been doing, but they propose to succeed by "starting their work from a new angle."

How One Doctor Gained Notoriety at the Expense of the Good Name of His Profession—Some newspapers have been taking quite a wallop out of all doctors again because one who works under our banner prized notoriety more than he did his ethics. It is said that this doctor ordered a nurse to let a newly born idiot of the Mongol type starve to death. She refused to obey orders and reported the matter to the press. In addition to pages of "news," this probably untrue incident has led to some editorial moralizing largely condemnatory of physicians in general.

Another Specialist Takes a Fall Out of Members of His Profession—"An oculist of international reputation," according to an editorial in a recent popular magazine read by millions of people, induced the editor to call attention to an eye trouble occurring in persons of mature years as the "outgrowth of neglect brought about by mistaken diagnosis on the part of general practitioners." The editorial goes on to say, upon the authority of this great oculist, that: "A patient appears at the office of his family physician and complains of failing sight. An examination is made and the verdict given: 'You are suffering from a cataract. Nothing should be done at this time, but if you will report to me every few weeks I will watch it and will send you to an oculist for an operation when the

proper time comes.' After a lapse of months, or even years, the unhappy patient comes under the care of an oculist, who discovers that he is suffering not from cataract but from an advanced and incurable case of hardening of the eye, of glaucoma in some one of its dozen forms. Blindness is inevitable and nothing can be done to prevent it."

Not satisfied with insulting the intelligence of his colleagues, this great oculist, who we suspect is nothing of the sort, goes on to imply that if the patient had come to him earlier, the doctor could have saved his sight. This kind of medical snobbery and egoism manifests itself very frequently in public press dispatches, and is one of the most inexcusable and harmful practices of the present day.

State Medical Leagues—Out of what is thought to be unsatisfactory functioning in some respects of state medical associations has developed the medical league idea. A number of states, notably California, Ohio and Maine, have organized state medical leagues to further the interests of scientific medicine by campaigns of education. Other states, notably Iowa, have attempted to attack the problem in various ways.

Part of the history of state medical societies has been that legislative committees, campaign committees, publicity committees, have been appointed, have been considerably puffed up over recognition by their appointment, have gone to sleep as soon as the annual meeting was over, have been rudely awakened by the secretary on the approach of the next annual meeting, have hurriedly written rather flamboyant reports which were read before the annual meeting and ordered placed on file—and that was about all the movements ever accomplished—Nebraska Medical Journal.

Doctors Now Charged With Creating a Race of Weaklings—The public press recently gave some space to the charge made by a California preacher against doctors. This preacher is reported to have said that physical standards of the race are being lowered because the doctors are so successful in saving the lives of the "weak" and "inferior." This class are notoriously successful propagators.

New Radio Health Service—The San Francisco Bulletin announces a new series of *"the best hygiene talks ever given over the radio"* by phominent members of the faculties of Stanford University and University of California Medical Schools.

There are now scores of public health and personal health organizations; medical societies, general and local; groups of private physicians; individual physicians in private practice, as well as all sorts of "near medical" organizations and persons engaged in broadcasting health and medical advice. Much of it is good; much of it is of indifferent value; some of it is unwise and some of it is pure "personal puffery."

A friend of ours recently found his 6-year-old daughter with her head in the opening of the loud speaker, waving her arms and trying to interrupt "Uncle John" in the broadcasting of his bedtime stories. There is food for thought in this little story.

An Experiment in Heart Clinics—According to newspaper stories several prominent women have donated $9000 to be spent at the rate of $3000 a year by the University of California Medical School in a study of the need for and value of cardiac clinics. The experiment has been in operation one year, and Doctors W. P. Lucas and Edith Bronson report it a success. A group of children suffering from heart disease were selected from the total of 165 that were recorded in the various clinics. "Some of the cases, especially those following acute diseases, have been discharged as fully cured," says the report.

New Chiropractic Board Challenged—The first chiropractic board appointed under their initiative law by Governor Richardson was ousted by court decision. The governor later appointed a second board. The fitness of its members has also been challenged by Joseph A. Sanford, president of the Western College of Chiropractic. Sanford claims there are ninety men in California qualified for membership on the board, but that none of them has been selected by the governor.

Newspaper Health Articles Influence Public—The report of a recent survey made by a group of Minnesota University students indicates that from 40 to 48 per cent of the 309 households (1197 members) read and studied the health news published by newspapers, and half of these follow the health instructions.

Livening Up Figures—Under this heading the San Francisco Daily News, commenting editorially upon some recently released vital statistics, says:

"Comes now the director of the California Bureau of Vital Statistics, who is statistically familiar with the 80,237 babies born in his state the past year. These babies weighed 263 tons, meat and bones included. They were of assorted lengths, but placing them head to foot the director visions a line over twenty-five miles long.

"You can see how easy it is to get the proportions by comparison. The average dressed steer weighs about 900 pounds. Thus, 584½ steers would represent, in meat, those 263 tons of baby. Quite a drove of cattle."

California Leads in Suicides—The Spectator, an insurance journal, reports 15.2 suicides per 100,000 of population. San Diego, according to the statistics, continued to have the highest proportion of suicides, the rate there being 50.5. The Pacific Coast generally, as in former years, had a high rate.

The Worst Bureaucratic Tendency of All—This is the designation given to the Children's Bureau of the Department of Labor at Washington by the writer of a scathing article in the Dearborn Independent.

This is only one of the frequent attacks that are now being made upon this probably the most political of all the political bureaus in Washington. Because the saving of children is a worthy effort, it does not necessarily endorse unworthy methods.

How Could This Happen?—Quite a little "broadcasting" was indulged in recently to the detriment of the cause of better medicine and better hospitals over the reported refusal of the Vallejo General Hospital and the Solano County Hospital to admit a child desperately ill from burns. The child later died in the county hospital at Martinez.

The very first rule of any hospital worthy of the name is SERVICE *first in any conceivable sort of an emergency, and questions afterward.*

The Public School Protective League at It Again—Some years ago the anti-health forces succeeded in securing legislation changing anti-smallpox vaccination from the "required" to an "optional" status for school children. Under this "optional vaccination" law, smallpox has increased from an average of some 400 cases a year to an average of over 3000.

These influences are now again after the University of California to change their rules about vaccination from "required" to "optional." They probably will not succeed this time, but they will continue to be eternally at it. These anti-medical progress people have plenty of money, and someone frequently gives them a new financial boost. Lotta Crabtree recently passed away leaving a $300,000 foundation to be used in fighting scientific progress by opposing in every way animal experimentation. What a monument!

As Others See Us—Two doctors came downtown on a Sutter street car today, says a writer in the San Francisco Bulletin. Between Van Ness avenue and Market street they operated six times—without an anesthetic. One of them had a most interesting case.

"We had to take out the sterna obregon in order to reach the capricornus resartus," he said.

"Is that so! Was there any matriculation?"

"Oh, yes, naturally. We found considerable nux vomica action in the Babe Ruth tissue, and also a carbuncular matrix due to biogaenologicalicutinous conditions. But I made a channel through the duolaterals and secured a fine kismet."

A passenger arose suddenly and staggered out to the back platform of the car.

"My God!" he exclaimed to the conductor. "What chance has a Christian Scientist got in this world?"

California Medical Association

CONTRA COSTA COUNTY

Contra Costa County Medical Society (reported by L. St. John Hely, secretary)—The regular monthly meetings of the Contra Costa County Medical Society were resumed this month after the summer vacations.

Henry Harris, M. D., of San Francisco gave us a very complete and technical lecture on pathological and functional diseases of the heart.

As the hour was late when the members assembled at the offices of Abbott & Hely, very little time was consumed in business matters. These will be taken up at the next meeting in October at Crockett, F. L. Horne, M. D., being host.

The following members were present: F. L. Horne, Crockett; G. M. Bumgarner, Richmond; Denninger Keser, Richmond; J. T. Breneman, El Cerrito; C. R. Blake, Richmond; J. B. Spalding, Richmond; H. L. Carpenter, Richmond; P. C. Campbell, Richmond; Hall Vestal, Richmond; U. S. Abbott, Richmond; Rosa A. Powell, Richmond; Elizabeth Redmond, R. N., Richmond; L. St. John Hely, Richmond.

After the meeting the members adjourned to Martin's grill for refreshments.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—The regular meeting of the Fresno County Medical Society was held at the Hotel Fresno, October 7, 1924, at dinner. There were forty-seven members and fourteen visitors present. Members: Drs. Aller, Anderson, Barrett, Bell, Binkley, Burks, Collins, Couey, Cross, Craycroft, Drake, Diederich, Dearborn, Ellsworth, Hare, Jamgotchian, James, Jorgensen, Kjaerbye, Konigmacher, Levy, G. L. Long, Manson, Mathewson, Maupin, Miller, Mitchell, Morgan, Murayama, Milholland, McPheeters, Newton, Pettis, Pomeroy, Quimby, Schottstaedt Sheldon, Scorboro, Tillman, Trowbridge, Tupper, Vanderburgh, J. R. Walker, G. W. Walker, Wheeler and Wiese. Visitors: Drs. Morrow and Dillon of San Francisco, Betts, Preston and McSwain of Visalia, Seligman of Dinuba, Campbell of Exeter, W. W. Tourtillott of Porterville, Meracle of Caruthers, J. W. Nicholson of Porterville, Nider, Fullmer, Dahlgren and Nesbit of Fresno.

James R. Dillon, assistant clinical professor of surgery (genitourinary) at the Stanford University School of Medicine, gave an instructive paper on "Gonorrheal Rheumatism, Pathological and Clinical Study." He illustrated it by lantern slides of the vesicles and urethra. His paper covered the treatment, surgical and non-surgical, and the results obtained on his service at the San Francisco County Hospital, at the Stanford urological clinic and in his private practice. He stressed the removal of foci of infection in the genitourinary tract as well as removal of foci of infection elsewhere to cure arthritis. He showed also how impossible it was to remove these foci in the vesicles and the prostate in certain cases without radical removal of these organs. He showed the necessity of thorough study and investigation of each patient and also a variation of treatment to suit the particular conditions in each case.

Howard Morrow, clinical professor of dermatology at the University of California Medical School, gave a short paper on the treatment of early syphilis, after which he showed a great many lantern slides of various skin manifestations. He said that to treat lues properly one must know its pathology. An early diagnosis is most important, with the aid of the dark field or frequent Wassermann tests. It is equally important to treat vigorously to obtain favorable results. There are three drugs to be used as treatment—organic arsenic, mercury and the iodides. Substitute preparations are sulpharsphenamin and tryparsamid. The former is especially good in Wasserman-test patients, the latter in neurolues. The lantern slides were of patients with cancer of various kinds, syphilis, leprosy and other skin diseases.

The applications of G. K. Nider of Fresno and C. B. Cowan of Selma were reported on favorably by the state secretary and passed by the board of censors. Tillman moved, Aller seconded, that they be elected to membership. Carried.

On the morning of October 7, James R. Dillon of San Francisco conducted a clinic in urology at the General Hospital of Fresno, at which time he performed a perineal prostatectomy before a number of physicians interested in that type of work.

Howard Morrow of San Francisco presented several cases of skin cancer before the staff of the General Hospital at luncheon, October 7. He discussed them according to diagnosis and type of treatment for the basal celled epithelioma and the squamous type.

MERCED COUNTY

Merced County Medical Society (reported by Brett Davis, secretary)—The Merced County Medical Society met October 9 at the office of the secretary with the following members present: Parker, Lilley, Mudd, Kylberg and Davis of Merced, Cotton of Atwater, Yocom of Chowchilla, Bush of Los Banos and Trick of Dos Palos.

Dr. H. Lisser of San Francisco gave an illustrated lecture on "The More Common Diseases of the Ductless Glands and Their Treatment." Points were brought out about cases that showed only one gland affected and others in which more than one gland was affected. Many questions were asked and answered. Photographs were shown illustrating some remarkable results that had been obtained by treatment, by mouth, of endocrine products. Dr. Lisser advised that when given by mouth endocrine gland products should be salol coated.

Drs. Cotton, Parker, Fountain and Lilley have taken a contract to do the accident and health work for Bent Brothers & F. Rolandi Construction Companies in the building of the Merced irrigation district's big dam at Exchequer and the relocation of the Yosemite Valley railroad.

ORANGE COUNTY

Orange County Medical Association (reported by D. R. Ball, secretary)—Dr. W. S. Wallace of Orange was elected to membership in our society at the meeting of September 2, transferred from the Clay County Society of Missouri.

Dr. Foster E. Wilson of Huntington Beach died at Pasadena on July 23, 1924.

Son of R. A. Cushman Dies—Allerton Rankin Cushman, age 15, son of Dr. and Mrs. R. A. Cushman, died at the Santa Ana Valley Hospital September 16, following an illness of a week's duration and six days after an operation had been performed in an effort to save his life.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement (reported by J. Hall, secretary)—The regular meeting of the Sacramento Society for Medical Improvement was held September 16, 1924, President Drysdale presiding. Members present, 31; visitors, 3.

Minutes of previous meeting read and approved.

Report of cases: Brendel reported a case of fracture, first and third lumbar vertebrae. Demonstrated the patient after operation and also demonstrated the type of brace used. He stated that a spinal graft was fixed to the fourth lumbar to the tenth dorsal vertebra. Operation was on June 8, and patient leaves the brace off six hours daily.

Yates showed an x-ray of massive collapse of right lung—post-operative. Case was discussed by Gundrum, who saw it in consultation.

Beach reported a case of difficult diagnosis in kidney lesion.

Paper of the evening was presented by Rulison on "Diverticula of Descending and Pelvic Colon." In his paper Rulison covered the pathology, history and incidence of diverticula. He divided them into true or false and gave the pathogenesis. He stated that 40 per cent of these give rise to no symptoms. He reported that Zimmerman found diverticula in 3 per cent gastrointestinal cases. He

then covered the subject of differential diagnosis and gave x-rays of four clinical groups: (1) Self limiting; (2) Diverticulis and peridiverticulitis with abscess and fistula; (3) Giving rise to acute or chronic obstruction; (4) Carcinoma development.

Under the first heading he discussed the symptoms, diagnosis and treatment in cases seen by himself. Under the second group of fistula he reported two cases, first showing pathology of appendix and tubes, and this patient was demonstrated to the society. Under the third heading mentioned it was difficult to diagnose between carcinoma and hyperplasia associated with diverticulitis. He stated there were three things that militate against a smooth convalescence after surgical treatment: First, the blood supply of the wall of the lower bowel is not as liberal as in the upper segments; necrosis is frequent due to failure of the blood supply. Second, we are dealing with the dirtiest segments of the alimentary tract. Third, when distention occurs about the third day, it is dealt with with difficulty and the distention decidedly interferes with healing.

He showed a great many films demonstrating differential diagnosis and diverticula. This was a lengthy paper in so far as it completely covered the subject, but was short due to the clear and concise method of presentation.

Discussion was opened by Pearson, who had seen two or three cases himself with Rulison. There was further discussion by Dunlap, Gundrum, Foster, Dillon, Beach, Johnson and James, and it was closed by Rulison.

Under application for membership, E. C. Babcock was transferred by acclamation from Alameda county, and William M. Miller transferred from Riverside county.

Case of Dr. Burden was taken up through the regular routine.

Minutes of board of directors' meeting read.

Communications were read from Mrs. McGinn and the Physicians' Exchange, which latter subject was discussed by Drysdale, Parkinson and Beattie.

Dr. Crawford brought up the subject of the Reed-Johnson bill, which was in effect that any ex-service man or woman be taken care of in any government hospital for any illness without charge. This was discussed by Reardan and Parkinson, and it was apparently the opinion of the society that it was a vicious measure.

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—The society met at the San Bernardino County Hospital, October 7, 1924, with thirty members present, forty-six absent, twenty-two guests.

The following officers were elected for the ensuing year: President, R. S. Gibbs; first vice-president, G. S. Landon; second vice-president, F. F. Abbott; secretary-treasurer, E. J. Eytinge; delegates to state convention, principals, R. S. Gibbs, E. J. Eytinge; alternates, P. M. Savage, A. T. Gage.

The paper of the evening was by Roy W Hammack of Los Angeles on "Fungus Infections of Southern California."

SAN DIEGO COUNTY

San Diego County Notes (reported by Robert Pollock)—The September staff meetings of Mercy Hospital and the County General Hospital were held together in the auditorium of the latter institution. An excellent clinical program was presented by members of the county staff. Announcement was made that the medical staff of the County Hospital, the Medical Society and the county supervisors had worked out plans for the conduct of the hospital exclusively for the sick poor of the community. The question of interpretation of terms and investigation of the conditions of applicants was left entirely in the hands of Dr. Stephenson, the medical superintendent, and his corps of social workers.

The regular meeting of the Medical Society for October 14 takes the form of a dinner in the Pompeiian room of the San Diego Hotel, the after-dinner scientific program being furnished by Dr. Max Rothschild and his associates on the "state tubercular program." Further account of this will be given later.

The San Diego profession and that of the entire state mourns the death of Dr. Isaac Daniel Webster, whose medical leadership and broad human and civic interests had endeared him to us all.

Mr. Milton A. McRae, a layman with broad experience on hospital directorates, was recently nominated by the County Medical Society to represent them on the executive board of the Scripps Memorial Hospital, in accordance with certain legal provisions for the government of that institution.

Dr. and Mrs. Homer C. Oatman recently returned from an extended trip abroad. The doctor looks as if it had done him worlds of good.

George B. Worthington was recently elected by the board of health to the position of city health officer vice Alex M. Lesem, resigned. Dr. Lesem relinquished his position in the city in order to organize and broadly carry out plans for cementing together the various health interests and public health organizations now existing throughout the county, with the view that every part of the county may enjoy the privileges of intelligent health censorship. Dr. Lesem has given much study to the specialty of public health and has a high conception of the need of city, county and state public health efforts working harmoniously and effectively together.

A liberal delegation from San Diego of doctors and others interested in hospital conduct and management will attend the hospital conference at Long Beach in November.

An eye clinic will be held during November in San Diego, with a view to clarifying the situation in regard to certain eye conditions where there is at times a difference of opinion. It is hoped at this time that a definite conclusion may be reached which will aid the health department in preventing infectious cases coming in contact with well children.

SAN FRANCISCO COUNTY

Proceedings of the San Francisco County Medical Society (reported by J. H. Woolsey, secretary)—During September, 1924, the following meetings were held:

Tuesday, September 2—Section on Medicine: Pathogenesis of amebic infections—W. T. Davidson. The clinical problem of intestinal protozoa—A. C. Reed.

Tuesday, September 16—Section on Surgery: Insufflation of the Fallopian tubes—L. A. Emge.

Tuesday, September 23—Section on Eye, Ear, Nose and Throat: Treatment of diabetes by insulin, with special reference to fundus changes—R. E. Allen. Plastic surgery of the ear, with demonstration of a case—H. B. Graham.

Tuesday, September 30—Section on Urology: Gonorrheal rheumatism, a clinical and pathological study—J. R. Dillon. Treatment of movable kidney, surgical and medical—C. P. Mathe. The continental urological clinics: Unusual routine practices—William E. Stevens.

Proceedings of the Urological Section of the San Francisco County Medical Society, September 30, 1924 (reported by Miley B. Wesson, chairman)—This meeting was attended by an audience that entirely filled the first floor of the auditorium and demonstrated conclusively that doctors, independent of their specialties, will turn out to any medical meeting if a program is offered that sounds as if something can be learned from the papers, which must be of general interest and be accompanied by carefully prepared discussions.

The first paper, 'Gonorrheal Rheumatism, a Clinical and Pathological Study," was read by J. R. Dillon and was illustrated by a large number of lantern slides of sections of pathological seminal vesicles. Among other interesting points brought out were the following: Contrary to the generally accepted view, a long finger is not necessary to reach the seminal vesicles, a short finger and a knowledge of anatomy being sufficient; infection of the buccal membranes has a direct influence upon gonorrheal rheumatism, a coryza being sufficient to cause an acute exacerbation. The presence of gonococci in the urethra does not rule out infected teeth as the cause of the arthritis; "gonorrhea carriers" are not uncommon and may harbor gonococci in the urethra, prostate or seminal vesicles for seven years or more; some people have a predisposition to gonorrheal rheumatism; seminal vesiculectomy will not insure against rheumatism with each succeeding urethritis; all forms of medical treatment should be tried before resorting to surgery.

The discussion was opened by L. W. Ely, who said true gonorrheal arthritis is rare and, though the diagnosis is often made clinically, it is rarely confirmed pathologically; the infection is never chronic but is always acute, since the organisms die quickly; the findings of organisms in a joint by means of aspiration is a question of luck; because

of the differences in joint pathology there is no danger of confusing infections from the teeth with those from the urethra; "egg-walking gait" with tenderness under the tubercle of the calcaneus is pathognomonic of an infection of the posterior urethra; the site of election in the male is the knee and in the female it is the wrist; finger infections belong to the throat; for treatment use Torres' antigonococcic serum as a fereign protein, wash joints with solutions of normal saline, or silver salts, use applications of ice in preference to heat, and never mobilize.

A. L. Fisher said that the washing of a joint with anything but a penetrating dye is useless, since the living gonococci are in the superficial layers of the synovial membrane, while the exudate contains only dead organisms; inasmuch as the joints move and pain disappears as soon as the focus is cleared, the treatment belongs to the urologist or gynecologist and not to the orthopedist; that he uses a gonococcus vaccine, not because of any specificity, but because it has fewer bad effects than any other preparation.

L. C. Jacobs thinks that massage should be given a thorough trial before radical surgery is resorted to, for although it is not a specific scientific procedure, neither is a seminal vesiculectomy, since patients are subject to gonorrheal rheumatism after they have submitted to an operation; foci of infections in the kidney and in urethral strictures must not be overlooked; lactogen is a very satisfactory foreign protein vaccine.

A. B. Spalding asked: "Why so much gonorrhea and so little arthritis? What is the reason for the disproportion? Why are cases that have been bedridden with immobile joints, for months, cured of all symptoms in a few hours?" He suggested that joint involvements occur only when there is no drainage; a wide dissection of an infectious focus, which affords free drainage, will result in a spectacular cure before the patient is out from under the influence of the anesthetic.

The next paper was by C. P. Mathe on "Treatment of Movable Kidney, Surgically and Medically," and was illustrated by a large number of interesting lantern slides. The paper was based upon a study of ninety cases, sixty treated with belts and thirty by surgery. The cases were thoroughly analyzed and the conclusions tabulated in charts. Many of the results were illustrated by parallel pyelograms taken before and after treatment. A number of anatomical and surgical pictures showed clearly the reason for failures of unscientifically performed nephropexies. Questionnaires sent to leading surgical centers elicited the information that in all cases belts were tried and that if relief was not obtained, surgery was then resorted to. As a result of the failures from bad technique, or wrong diagnoses, Kelly's nephropexy has gradually fallen into disrepute and is in danger of becoming obsolete.

Frank Hinman, in opening the discussion, said that the success of nephropexy depends primarily upon an accurate diagnosis of a movable kidney *with symptoms*. There is a definite symptom complex consisting of (1) pain, (2) gastro-intestinal symptoms and (3) nervousness. No operation should be considered unless pain is present. The urological diagnosis is more important than the clinical; fixation of the ureter predisposes to kinks which form an internal valve resulting in a hydronephrosis; this may be congenital, as such a condition was recently found in a 2-year-old girl. The failure of the operation may be due to bad methods; Kelly's operation is best, but the ureter must be dissected free, and it is well to decapsulate the kidney because of a possible nephralgia.

H. H. Markel believes ptosis of the kidney is generally congenital, occurring in the "carniverous type," and can be cured by correcting the posture in early childhood, giving exercises which will correct the lordosis by flattening out the protuberant abdomen, throwing out the chest and pulling in the chin. Orthostatic albuminuria is common in this type and disappears with the correction of the lordosis. The left kidney is at fault, the left renal vein being pinched by a dragging of the superior mesenteric artery; hence, the albuminuria can be stopped or produced at will by controlling the lordosis. He showed a large number of lantern slides, illustrating in detail the posture, method of treatment and the pathological relationships of the kidney.

W. E. Stevens considered that ptosis of the left kidney was always congenital, while that of the right was acquired.

The last paper was by W. E. Stevens on "The Continental Urological Clinics: Unusual Routine Practices." During the past summer he noticed particularly famous French surgeons operating in street clothes with rubber boots and rubber aprons; lack of pedicle clamps in nephrectomies; use of Tanno's serum as a specific for chronic prostatitis; x-rays for anuria and tuberculous fistulae, in Vienna; x-ray instead of surgery for prostatic cancer; artificial malarial infections in treatment of neurosyphilis; universal use of parasacral anesthesia in general surgery, in Budapest; Rivenol for tuberculosis of the bladder, in Berlin; general anesthesia for simple cystoscopies, in Great Britain; suprapubic radical prostatectomy for cancer, in London; radical perineal prostatectomy for cancer, in Germany.

Franklin Hospital Clinical Society (reported by Ewald Engerman, secretary)—The first meeting of the Franklin Hospital Clinical Society following the summer vacation period took place on the evening of September 15, 1924, at the Franklin Hospital.

The paper of the evening was ably presented by Miley B. Wesson, choosing for his subject, "Prostatic Median Bar, Its Complications and Treatment." Dr. Wesson's remarks were concise and to the point and the presentation proved instructive to all those present. The subject was fully illustrated by appropriate lantern slides.

The subject was discussed by Michelson, Mathe, Eaton, Hartman and Kutzman.

The San Francisco Colloquia Reopened—The interesting and worth-while Colloquia, so long a feature of the San Francisco Hospital, have been reconvened after the summer vacation. The Surgical Colloquium takes place every Thursday and the Medical every Friday morning at the hospital. Physicians are welcome.

St. Francis Hospital Notes—Dr. Dwight M. Ervin, desiring to enter private practice, has resigned as pathologist to the hospital.

Dr. A. M. Moody, formerly of Chicago, has been aupointed to succeed Dr. Ervin.

Dr. Moody's reputation as laboratory director is a guarantee that we can offer the very highest type of laboratory service. He will cordially welcome your co-operation and support in his work of further developing that department.

Doctor John R. O'Neill has been selected to take charge of the newly installed electrocardiograph service.

St. Joseph's Hospital Activities — October 8, St. Joseph's Hospital staff of San Francisco, A. S. Musante presiding, heard R. S. Rigdon speak on "Co-operation of General Practitioner and Urologist," illustrated with illuminated x-ray plates, including pyelograms and drawings. He urged more frequent consultations between general and special workers and opened his case summaries with one of sexual impotence, which urologists could not explain, but was diagnosed as pernicious anemia by a general man. The latter often overlooks the diagnosis of genito-urinary lesion. Even urologists fail at times to ferret out cases in their specialty. An example given was a case of kidney pain and slight leucocytosis, which cleared up without a diagnosis. Neurasthenic types, with abdominal kidney pain and apparent, though unexpected, recovery after dilitation of ureters, were presented. The x-rays are a great aid to diagnosis, and a drawing of kidney outlines by roentgenologist is useful. Perirenal abscess does not show in picture often. Kidney tumors, which are rare, are shown up early sometimes which is very desirable, in pyelograms demonstrating distorted calices, especially if taken at intervals of six months or so; otherwise the diagnosis is too late. An unusual case of urinary fistula, due to a distended and misplaced pelvis which was injured during an appendectomy, was shown. Another, a case of hematuria associated with a shadow apparently connected with a ureter, turned out to be vesical papilloma and the shadow a calcified gland. L. B. Crow, in discussing, pointed out that stones should not be diagnosed without the co-operation of the urologist. W. T. Cummins inquired about cancerous prostate and blood urea in these patients. Rigdon closed by saying that 25 per cent of his prostates were cancerous and that a high urea estimation constituted a dangerous operative risk, which must be taken in urgent surgery.

W. T. Cummins spoke of "Hospital Notes from the East." The Philadelphia Dermatological Laboratory was described, and sulpharsphemine declared to be proving a success there. At the University of Pennsylvania cocci-

dioides culture and comparative pathological study were attracting special attention. In New York research work was concerned with the scarlet fever work of Dick and his test resembling the Schick diphtheria reactions. Three distinct types of streptococci are being differentiated in this disease. Roosevelt and Hahnemann Hospitals were described, the latter's biochemical work being stressed. A new table covering was encountered there which resembles cork linoleum, and is acid and alkali-proof. At the Rockefeller Institute chickenpox was centered upon just then. In Boston, Joslin was training his patients on diabetes, especially the diet. Blood glucose was the basis used for insulin activity. There is wide acceptance of the normal glucose in urine. In Cleveland, pathologists were working upon thyroids, following Aschoff's ideas. Colormetric rather than titration methods were being developed at Western Reserve University. Creatinin work is being standardized for late stages of nephritis. The uric acid determination has not yet brought out a uniform technique. Chemical examination of blood is being given more importance than urine. In Cuba, tropical diseases are being studied intensively. A plea for more general routine tests of patients was made.

Case reports were presented by Drs. J. C. Newton (circulatory lues), Ethan Smith (carcinoma metastasis in femur), L. J. Overstreet (hemiplegia), and Curtis Smith (chronic nephritis and x-ray visualization of gall-bladder with sodium tetratbromphenolphthalein).

F. C. Keck presented the doctors' library twelves volumes of portfolios and fifteen framed colored engravings on dermatology.

Miss Mabel Adams Ayer reported her success in the student nurses' library, which is already composed of hundreds of volumes.

SONOMA COUNTY

Sonoma County Medical Society (reported by N. Juell, secretary)—A meeting was held at Santa Rosa, October 9. Twelve members present, twenty-eight absent, two visitors.

G. A. Hunt delivered an address on "Blood in Health and Disease," illustrated by microscopic slides. Fulmer discussed the importance of blood examinations in infancy and childhood. Shaw spoke on the technique of blood transfusion. Bonar on blood in diabetes. A discussion of the merit of the autohemic theory, consisting of injecting a dilution of the patient's own blood intravenously, followed. Several of the members present had tried it with success in selected cases.

EXTENSION LECTURE SERVICE

The following members of the California Medical Association have furnished titles of lectures they are now prepared to deliver at county society meetings. County secretaries may obtain speakers from this list either through the state office or by direct communication with the lecturer desired.

Th co-operation of the members in this branch of society work is gratifying. While the list is temporarily closed and will be sent as now published to the secretaries of all county medical societies, any member who is interested in this service may still furnish the secretary, as requested in the October number of CALIFORNIA AND WESTERN MEDICINE, with the titles of papers he is prepared to give. His name will then be filed for addition to the first revision of the Extension list.

HANS BARKAN, M. D.,
516 Sutter Street, San Francisco.
1. Headaches Due to Ocular Causes.
2. Industrial Aspects of Eye Injuries.
3. Modern Methods of Cataract Operations.

EDWIN I. BARTLETT, M. D.,
240 Stockton Street, San Francisco.
1. The Use of the Exploratory Incision in the Diagnosis of Malignant Disease.
2. When and How to Operate on the Breast.
3. Simplified Classification of Breast Conditions, and "Short-cuts" to Diagnosis.
4. Essential Points in Neck Dissections and Methods of Accomplishment.

W. W. BOARDMAN, M. D.,
350 Post Street, San Francisco.
1. The Treatment of Cholecystitis.
2. Lyon's Technique in the Diagnosis and Treatment of Biliary Tract Disease.
3. Diagnosis and Treatment of Gastro-Duodenal Ulcer.

EDITH BRONSON, M. D.,
1289 Second Avenue, San Francisco.
1. The Prevention of Heart Disease in Children.

PHILIP KING BROWN, M. D.,
909 Hyde Street, San Francisco.
1. Any Subject Connected with Tuberculosis of the Lungs and Its Treatment.
2. Gastro-intestinal Conditions, Acute and Chronic.
3. The Treatment of Auricular Fibrillation.
4. The Surgical Treatment of Angina. (With Walter B. Coffey, San Francisco.)
5. The Economic Aspect of Hypertension in Its Various Forms.

JOSEPH CATTON, M. D.,
209 Post Street, San Francisco.
1. The Injured Head.
2. Treatment of Post-Traumatic Neuroses.
3. The Doctor Looks at Crime.
4. Mental Analysis.
5. Practical Aspects of Autonomic Neurology.

E. W. CLEARY, M. D.,
177 Post Street, San Francisco.
1. Fractures of the Spine. (Lantern slides.)

A. B. COOKE, M. D.,
606 South Hill Street, Los Angeles.
1. The Nature and Management of Hyperthyroidism.
2. The Classification and Differential Diagnosis of Goiters.
3. Surgical Aspects of the Goiter Problem.
4. Factors Other Than Operative Which Make for Surgical Mortality.

JOHN FRANCIS COWAN, M. D.,
Stanford University Hospital, San Francisco.
1. Chronic Gastric and Duodenal Ulcer.
2. Chronic Cholecystitis.
3. Knee Joint Resection.
4. Healing of Fractures.
5. Ununited Fracture, Its Cause and Treatment.
6. The Use of Fascial Transplants in Surgery.
7. Necrosis of Costal Cartilage.
(Doctor Cowan not available until after January 1, 1925.)

WILSON T. DAVIDSON, M. D.,
350 Post Street, San Francisco.
1. The Problem of Amebiasis in California. (Lantern slides.)
2. Intestinal Parasites. (Lantern slides.)
3. Tropical Diseases in California. (Lantern slides.)

ERNEST S. DU BRAY, M. D.,
870 Market Street, San Francisco.
1. Insulin Therapy in Diabetes.
2. The Management of Hypertension.
3. Transient Glycosurias and the Early Diagnosis of Diabetes Mellitus.
4. Overweight, and Allied Medical Problems.

L. A. EMGE, M. D.,
350 Post Street, San Francisco.
1. Sterility.
2. The Transsufflation of Uterine Tubes.
3. What Can the Clinician Learn From Cancer Research?
4. The Lacerated Cervix.

ERNEST H. FALCONER, M. D.,
380 Post Street, San Francisco.
1. The Diagnosis of Pernicious Anemia. (Lantern slides.)
2. The Treatment of Severe Anemias. (Lantern slides.)
3. The Classification and Diagnosis of the Hemorrhagic Diseases. (Lantern slides.)
4. The Spleen and Its Relationship to Diseases of the Blood-Forming Organs. (Lantern slides.)

ARTHUR C. GIBSON, M. D.,
St. Luke's Hospital, San Francisco.
1. Pan-Sinusitis with Suggestions for Rational Therapy.
2. Chronic Catarrhal Otitis Media with Discussion of Causes, Treatment and Results.
3. Causes of Chronic Otitis Media with Discussion of Treatment and Results.
4. The Mastoid—Its Complication, Diagnosis, Treatment with Results.
5. Combined Intranasal and External Tear Sac Operations with Results (Totimosher Method).

A. GOTTLIEB, M. D.,
605 Consolidated Realty Building, Los Angeles.
1. General Etiology of Deformities.
2. Talipes.
3. Static Foot Defects. (Lantern slides.)
4. Preservation and Restoration of Function After Injuries.

R. W. HARVEY, M. D.,
380 Post Street, San Francisco.
1. The Personality of the Patient.
2. The Vegetative Nervous System.
3. Vocational Education in the Rehabilitation of Nervous Cases.

FRANK HINMAN, M. D.,
380 Post Street, San Francisco.
1. A Discussion of a Complete Urological Examination.
2. Renal Counterbalance in Relation to Renal Surgery.
3. Relation of Kidney Structure to Function.

SAMUEL H. HURWITZ, M. D.,
516 Sutter Street, San Francisco.
1. The Significance and Treatment of High Blood Pressure.
2. Present Day Treatment of Asthma and Hay Fever.
3. The Treatment of Diabetes with Insulin.
(If desired, Doctor Hurwitz will present a clinic in connection with any of these subjects.)

NELSON W. JANNEY, M. D.,
Pacific Mutual Building, Los Angeles.
1. Treatment of Diabetes Mellitus with Special Reference to the Problems of the General Practitioner.
2. The Diagnosis and Treatment of Endocrine Diseases.
3. The Problem of Obesity.
4. The Treatment of Toxic and Non-Toxic Goitre.

W. H. KELLOGG, M. D.,
State Hygienic Laboratory, Berkeley.
1. The Problem of Diphtheria.
2. Present Status of the Schick Test and Immunization Against Diphtheria.
3. The Practicing Physician and Preventive Medicine.
4. The Old and the New Public Health.
5. Immunologic Reactions of Especial Interest to the Practicing Physician.

WILLIAM J. KERR, M. D.,
University California Hospital, San Francisco.
1. The Cardiac Irregularities: Their Recognition, Prognosis and Treatment.
2. The Management of Heart Failure.
3. The Place of Drugs in the Treatment of Heart Disease.
4. The Exanthemata; Their Diagnosis and Treatment.
5. Thyroid Disease; Modern Conceptions of Diagnosis and Treatment.
6. The Pneumonia Situation on the Pacific Coast.

ALSON R. KILGORE, M. D.,
391 Sutter Street, San Francisco.
1. Excision of Tissue for Tumor Diagnosis.
2. The Pre-Cancerous Lesions of the Breast. (Lantern slides.)
3. The Diagnosis of Bone Tumors, Clinically, by X-ray and at Exploration—Operative Indications of Each. (Lantern slides.)
4. When Shall We Use Radium Instead of Surgery for Cancer?

FRED H. KRUSE, M. D.,
380 Post Street, San Francisco.
1. The Irritable Colon.
2. Peptic Ulcer.
3. Clinical Studies in Thyroid Disease.

RALPH H. KUHNS, M. D.,
135 Stockton Street, San Francisco.
1. Nervous Children.
2. Chorea in Children; Prognosis and Treatment.
3. The Significance of Meningeal Symptoms in Children.
4. Facts and Fallacies in Breast Feeding.
5. Bronchial Asthma in Children; Diagnosis and Treatment.
6. Infant Feeding Methods Simplified for the General Practitioner.
7. Premature Infants; Care and Feeding.
8. Communicable Diseases in Children.
(If desired, Doctor Kuhns will present clinics on Infant Feeding, Infant Welfare Conferences, and Diseases of Children.)

G. CARL H. McPHEETERS, M. D.,
1021 Mattei Building, Fresno.
1. Obstetrics vs. Midwifery.
2. Prenatal Care in Obstetrics. (Lantern slides.)
3. Care of the Abdomen and Breasts in Pregnancy. (Lantern slides.)
4. The Toxemias of Pregnancy and Their Treatments.
5. Obstetrics the Stronghold of Medicine Today.

HIRAM E. MILLER, M. D.,
380 Post Street, San Francisco.
1. Lues—Diagnosis and Treatment with Special Reference to the New Arsenic and Bismuth Preparations. (Lantern slides.)

GEORGE WARREN PIERCE, M. D.,
870 Market Street, San Francisco.
1. Plastic Surgery in Civil Practice—A Resumé of New Methods. (Lantern slides.)
2. Care of the Injured Hand. (Lantern slides and diagrams.)

V. H. PODSTATA, M. D.,
The Livermore Sanitarium, Livermore.
1. Preventive Psychiatry.
2. The Unusual Children.
3. Psychotherapy and General Medicine.
(Doctor Podstata not available on Tuesdays.)

J. MARION READ, M. D.,
870 Market Street, San Francisco.
1. The Management of Exophthalmic Goitre. (Lantern slides.)
2. The Relationship of Pulse Rate and Pulse Pressure to Basal Metabolic Rate. (Lantern slides.)
3. The Use and Limitations of Iodin in the Treatment of Goitre. (Lantern slides.)
4. Basal Metabolism; Its Meaning and Clinical Value.

ALFRED C. REED, M. D.,
280 Post Street, San Francisco.
1. Heart Disease in Everyday Practice.
2. Intestinal Protozoa and Amediasis.
3. Vitamines and Food Deficiencies.
4. The Management of Asthma.
5. Tropical Diseases in California. (Lantern slides.)

R. L. RICHARDS, M. D.,
380 Post Street, San Francisco.
1. Mental Difficulties of Children.
2. Medical Reasons for Failure.

EMMET RIXFORD, M. D.,
1795 California Street, San Francisco.
1. Mechanics of Production of Fractures. (Lantern slides.)
2. General Principles of Treatment of Fractures.
3. Ulcer of the Stomach and Duodenum.
4. Cancer of the Stomach.
5. Cancer of the Colon and Rectum.

MAX ROTHSCHILD, M. D.,
380 Post Street, San Francisco.
1. The Early Diagnosis of Pulmonary Tuberculosis.
2. The Diagnosis and Treatment of Tuberculosis of Bronchial Glands in Children. (Lantern slides.)
3. The Problem of Immunity in Tuberculosis.
4. The Treatment of Tuberculosis with Specific Remedies. (Lantern slides.)
5. The Treatment of Tuberculosis with Non-Specific Remedies, with Especial Reference to Pneumothorax Treatment. (Lantern slides.)

JOHN HUNT SHEPARD, M. D.,
Growers Bank Building, San Jose.
1. The Treatment of Thyrotoxicosis.

LAURENCE R. TAUSSIG, M. D.,
380 Post Street, San Francisco.
1. Malignancies of the Skin, Their Diagnosis and Treatment. (Lantern slides.)

E. B. TOWNE, M. D.,
Stanford University Hospital, San Francisco.
1. Recent Advances in the Localization and Treatment of Tumors of the Brain. (Lantern slides.) (If desired, the three principal topics of this paper will be given as separate papers as follows):
a. The Value of Cerebral Pneumograms in the Localization of Tumors of the Brain. (Lantern slides and case reports.)
b. Proliferation of the Skull Overlying Meningeal Tumors. (Lantern slides and case reports.)
c. Calcification in Tumors of the Brain. (Lantern slides and case reports.)
2. Diseases of the Pituitary Gland.
3. Gunshot Wounds of the Brain.
4. Fracture-Dislocations of the Carpal Bones.

WILLIAM C. VOORSANGER, M. D.,
177 Post Street, San Francisco.
1. Pulmonary Conditions Wrongly Diagnosed as Tuberculosis. (Lantern slides.)
2. Tuberculosis Laryngitis—Is It Curable? Heliotherapy as a Remedy.
3. Gastro-Intestinal Complications in Pulmonary Tuberculosis.
4. Artificial Pneumothorax in the Treatment of Pulmonary Tuberculosis.
5. What Do Tuberculin and Vaccines Really Accomplish in the Treatment of Pulmonary Tuberculosis?
6. Advances in the Diagnosis of Pulmonary Tuberculosis.
7. Suggestions on the Importance of the Sanitarium in the Treatment of Pulmonary Tuberculosis.

JAMES T. WATKINS, M. D.,
909 Hyde Street, San Francisco.
1. The Cure of Spastic Paralysis (Little)—The Australian Operation.
2. The Treatment of Fractures. (Lantern slides.)
3. The Treatment of Joint Disabilities Due to Trauma. (Lantern slides.)

MILEY B. WESSON, M. D.,
870 Market Street, San Francisco.
1. Urethritis and Sequellae. (Lantern slides.)
2. Diseases of the Prostate; Their Treatment—Medical and Surgical. (Lantern slides.)
3. The Prostatic Median Bar; Complications and Treatment. (Lantern slides.)
4. Diseases of the Bladder; Symptoms and Treatment. (Lantern slides.)
5. Diseases of the Kidney and Ureter; Symptoms and Treatment. (Lantern slides.)
6. Cysts of the Prostate and Urethra. (Lantern slides.)

HAROLD W. WRIGHT, M. D.,
870 Market Street, San Francisco.
1. The Prognosis in the Psychoses with Remarks on the Relation of General Hospitals to Psychiatric Service.
2. The Psychoses of the Puerperal State.
3. The Differential Diagnosis of Sciatic Pain.

Malpractice Defense and Explaining "Optional Medical Defense"—Under the initiative of George H. Kress a group of prominent members of the Los Angeles County Medical Association have issued a circular of information to their members about "Optional Medical De-

fense." This little pamphlet is such a clear exposition of the subject that it is reproduced herewith:

"Dear Doctor: This is to be a heart-to-heart talk, from some fellow-members of the Los Angeles County Medical Association, in the hope that you will see fit to co-operate in protecting your own personal and professional interests. (*Yours,* not Dr. Jones' or Dr. Smith's.)

"No M. D. is Exempt From the Possibility of a Malpractice Suit—We all aim to practice our profession to avoid malpractice suits, but this misfortune is apt to come to any one of us (whether we specialize in surgery or not), out of a clear sky, just as it has come to many of our colleagues who have been sued. If you are a 'doubting Thomas,' ask any one of them. Ask them how they felt when first notified, and how grateful they were later to the State Society attorneys.

"A Malpractice Suit and Your Professional Career—A malpractice suit, with its attendant newspaper publicity, can work serious damage to your reputation, no matter how many years you may have efficiently and altruistically worked in public health endeavor.

"A man is foolish not to seek to guard to the utmost what has taken years of his best life to build up and accumulate.

"How Were You Legally Protected in the Past?—Our California State Medical Society formerly operated a mutual indemnity association, called the Indemnity Defense Fund for those who joined it, and also afforded legal defense to every member as a prerequisite of membership.

"Why Did Our State Society Give Up This Indemnity Feature?—Because the very large number of suits, high court costs, and some settlements out of court in order to avoid undesirable newspaper publicity, that would seriously damage any doctor's reputation, ran into so large a sum that our State Medical Society could not carry this heavy financial burden on so slight a financial margin.

"There was only one way out and that was to give up this guarantee of defense as a society, for otherwise we were faced with possible bankruptcy and each of us could have been held liable for the debts. All this has been explained in our state journal and at our annual state society meetings.

"On What Date Did Our State Society Give Up Malpractice Defense?—On July 1, 1924, our State Society discontinued malpractice defense in all cases of asserted malpractice arising in patients treated after that date.

"Our State Society is in honor bound to defend all colleagues in suits arising from services rendered prior to that date, and it will probably take several years before all such cases are off the court dockets.

"Every Sane M. D. Carries a Malpractice Defense Policy—Just as every sane man carries fire insurance, so every professional man should carry malpractice defense protection. Courts are always expensive things, but in malpractice cases, lawyers of a certain type can use such tactics that the M. D. who has not an organized legal backing from a private malpractice defense company or a state medical society mutual defense organization, is at a tremendous disadvantage, and the odds are all in favor of his being seriously damaged both professionally and financially.

"It is assumed, therefore, that every wise state medical society member is carrying today a malpractice defense policy in one of the private companies.

"Do These Private Companies Give all the Protection We Medical Men Need?—Private medical defense corporations are like all other insurance corporations. They give protection, etc., but they run their business, not on sentiment, but on cold dollars and cents lines.

"Among other considerations they charge premiums to cover their expenses, and if they must pay extra high medical expert fees, etc., that means that the annual cost of your premium may be increased, etc.

"If on the other hand, experts' fees, etc., can be kept down to a minimum, etc., then you are less apt to be called upon to pay a large and larger premium as the years go by, for exactly the same amount of protection.

"Could an Associated Legal Staff Be of Advantage to the Legal Staff of the Private Insurance Corporation?—It certainly could. If, for instance, the wonderful legal organization of our State Medical Society, which has been built up by Mr. Hartley Peart of San Francisco and Mr. Hubert Morrow of Los Angeles could be kept intact, then the legal interests of every one of us would be greatly safeguarded.

"These men know us as if they were doctors themselves They know when to fight hard and when to compromise. They know, through their past experiences what the total cost to a man's reputation will be in most of these cases.

"They stand in the same relation to us as if each one of us had a brother who happened to be a lawyer with an extra wide and expert knowledge of malpractice procedure.

"If you were sued, would you not find it most comforting to know that this sympathetic, interested friend, with his expert knowledge, would stand shoulder to shoulder with the stranger attorney whom the private insurance company would put in charge of your case? No matter how able this stranger attorney might be, he could not but be aided by these state society attorneys who have handled more of these cases than any other men in California in recent years, and who personally know more doctors than anyone outside the profession.

"Would It Be Desirable to Retain This Legal Staff of Our State Medical Society?—It certainly would.

"As a matter of fact, the importance and desirability of this appealed so intensely to certain members of our State Medical Society who, through years of inside knowledge of the work of our state society malpractice defense, that they formed an organization for that very end.

"This organization took over the former name of our State Medical Society, namely, 'The Medical Society of the State of California.' (Our State Medical Society, for uniformity with other state societies being now known, at the suggestion of the A. M. A., as the 'California Medical Association.')

"This new organization, 'The Medical Society of the State of California' and its 'Optional Medical Defense,' with nominal dues of $10 annually or $5 semi-annually, as per enclosed application card, makes available for every member associating himself with it, our general counsel, assistant general counsel, and their statewide staff of assistants. It will also endeavor to eliminate in every possible way the common causes of suits so frequently arising, among other sources, from utter misconceptions of what medical science can do for the patient. It is also believed that this organization will furnish an invaluable aid in keeping in touch with the insurance situation in this field and that it will assist in enabling the companies to maintain a reasonable premium rate.

"The Medical Society of the State of California (a suborganization of the California Medical Association, dealing with the elimination and handling of malpractice matters for its members) is under the management of a board of seven trustees. Those first elected are James H. Parkinson, Sacramento; Saxton T. Pope, San Francisco; William T. McArthur, Los Angeles; George H. Kress, Los Angeles; T. C. Edwards, Salinas; Rene Bine, San Francisco; and Charles L. Curtiss, Redlands. The executive committee is James H. Parkinson, chairman; T. C. Edwards, Rene Bine, and Emma W. Pope, secretary.

"Don't Think This is Just Sentiment That We Are Writing About—At a recent meeting of the Board of Councilors of the Los Angeles County Medical Association, one member stated that his malpractice defense policy premium in a private company had been increased to $500 a year, and another spoke up and stated his had been increased to about $200 a year! It is true that they are in special practice, but they formerly relied greatly on the State Society defense and an ordinary policy in a private company.

"Just as the private companies raised their premiums 500 to 1000 pr cent, so may your ordinary policy premiums be raised. As a fatter of fact, one well known company already demands a $75 annual premium for the same type of policy for which two other companies charge $15 to $20. Keep these statements in mind, in case you do not co-operate now and later on find you will be obliged to pay out as much or more money for less.

"Also keep in mind—that this $10 that would keep intact the legal organization of your own lawyer friends of our State Society, you will probably pay to a private insurance company, if you do not co-operate in this effort.

"And, in addition, remember that, with all deference to whatever defense the stranger attorneys give you, it will never be so good, that it would not probably have

been somewhat better because of the co-operation of Messrs. Peart, Morrow and their colleagues.

"Our new sub-organization, the Medical Society of the State of California, will not only endeavor to investigate and eliminate some of the common sources of these actions, but through its legal staff will actively co-operate with the insurance carriers in the defense of cases, with particular concern for the personal and professional features of the cases on the part of the members.

"In conclusion: Do this now and so better protect your own interests."

California's First Woman Physician—Sixty-seven of San Francisco's prominent women physicians recently attended a birthday banquet at the Women's Athletic Club in honor of Lucy F. Wanzer, one of the founders of the Children's Hospital. Doctor Wanzer, who is 83 years of age, entered Toland College in 1873, and was graduated in 1876 and was admitted to membership in the State Medical Society the same year. Among the physicians attending the banquet were Doctors Anderson, Ash, Atkinson, Bertola, Brown, Booth, Barney, Campbell, Clinton, Cunningham, Christensen, Crabtree, Dannkruger, Dennison, Donovan, Deal, Durgan, Frances Elliot, Lucille Elliot, Faverman, Feeley, Gompartz, Gifford, Holsclaw, Harriss, Havenner, Keyes, Kavanaugh, Layman, Leonard, La Fontaine, Metzler, Macomber, Emma Merritt, Mahoney, Macrae, Morris, Olsen, Oldenburg, Nussbaum, Pope, Pennington, Paroni-Mead, Reid, Reisha, Rethevilm, Righetti, Rosencrantz, Selling, Stevens, Seagrave, Schultze, Shighain, Willits, Walker, Wood, Wanzer, Williams, Quimby, and Maxwell.

Old Acquaintance Under New Name—Our contemporary, the California State Journal of Medicine, which has for many years greeted us under this title, says American Medicine, has been changed to the concise and significant designation of California and Western Medicine.

Affiliate Members—James Loughridge, Folsom, Calif.; Gustavus Simmons, Box 142, Inverness, Marin County, Calif.

Associate Members—Clelia D. Mosher, 179 Lincoln avenue, Palo Alto, Calif.; Glanville Y. Rusk, University of California Hospital, San Francisco.

Honorary Members—W. A. Edwards, 827 Security building, Los Angeles, Calif.; Thomas M. Hayden, Bank of Italy building, Fresno, Calif.; Arthur J. Herrmann, Box 1400, University Club, Los Angeles; James Acker Mattison, "Military Service," Los Angeles; Fred H. Nelson, "Military Service," Los Angeles; William F. Perry, 304 South Broadway, Los Angeles; Albert C. Zaiser, Spurgeon building, Santa Ana, Calif.

DEATHS

Clark, John Rogers. Died at San Francisco, October 13, 1924, age 58. Graduate of Columbia University College of Physicians and Surgeons, New York, 1895. He was formerly a member of the San Francisco County Medical Society, the California Medical Association and a Fellow of the American Medical Association.

Cross, Samuel N. Died at Stockton, October 15, 1924. Graduate of Pulte Medical College, Cincinnati, 1877. Licensed in California 1878. He was formerly a member of the San Joaquin County Medical Society, the California Medical Association and the American Medical Association.

Fisher, James Melville. Died at Mayfield, October 3, 1924, age 47. Graduate of the Hospital College of Medicine, Louisville, Kentucky, 1906. Licensed in California 1917. He was a member of the Santa Clara County Medical Society, the California Medical Association and the American Medical Association.

Webster, I. Daniel. Died at San Diego, October 6, 1924, age 59. Graduate of the University of Pennsylvania School of Medicine, Philadelphia, 1890. Licensed in California 1908. He was a member of the San Diego County Medical Society, the California Medical Association and the American Medical Association.

ISAAC DANIEL WEBSTER, M. D.

1865-1924

Born in Pennsylvania of sturdy Quaker stock, Isaac Daniel Webster carried with him throughout a strenuous and fruitful life those sterling qualities for which the Friends have long been admired.

After preliminary education in the little Quaker College of Swarthmore, he studied medicine at the University of Pennsylvania, which, needless to say, in the eighties had no peer, if indeed it has today. Graduated in 1890, and after an internship in University Hospital, Dr. Webster lost no time in getting at his life work, although from time to time during the busy years to follow he returned to his alma mater and other institutions for graduate study. After a

rather strenuous general practice in Minnesota for a number of years, he came to California and opened offices in San Diego in 1908. Rapidly rising in his profession, we find him in 1912 president of the County Medical Society. He led an active campaign of reform in connection with the County Hospital which resulted in that institution being placed for the first time in the charge of a medical staff, appointed by the medical society, under which system the hospital has rapidly risen to the enviable position which it today enjoys. In recognition of his valuable services to the profession he was endorsed by the County Society to direct the new staff and act as medical superintendent for the hospital. While this was not a full time position and carried with it only a moderate salary, he entered energetically and constructively upon his new duties, and soon became recognized in his community as a valuable public servant. In fact, Dr. Webster was always guided in the direction of his energies more by the opportunities for service than by financial considerations. This office he held for several years, until compelled by impaired health to conserve his energies. His interests in the general good later forced him to accept the position of medical superintendent of the public schools, in which his qualities of mind and heart showed to their best advantage, and which position he held until the time of his death.

Dr. Webster's interests were broad and diversified. Denied by reason of broken health the athletic life in which he shone as a young man, he still retained his leadership of men in the less strenuous pursuits. Besides his profession and his home, he found a keen interest in literature, art and religion. He expressed a lively interest in and a deep appreciation of his duties as a citizen. He thought clearly, expressed himself forcefully and entertained the utmost tolerance for the views of others.

His friends and enemies—for no man of his strength of character can fail to make some enemies—respect his memory and can together say, *"There passes a real man."*

R. P.

Utah State Medical Association

LABORATORY DIAGNOSIS

"Times and the manner change," said the Latin. The negro put it, "The sun do move." Little by little the profession adds to its armentarium against the insidious encroachments of disease. Laboratory diagnosis is being more and more emphasized. It has passed the experimental stage. Let any practitioner of medicine or surgery who has at his service the modern standardized facilities of a hospital compare the steps made in the last few years with those of the preceding decade. The refined technique of microscopy and internal chemistry have opened a vast field of availability to him in clearing the clouds of the diagnostic picture almost beyond the dreams of those who went before us—have converted assumption with its sense of uncertainty to a knowledge positive.

Today the clinical laboratory stands in the position of the scout plane to an army—spotting the enemy's positions, referring back the information so essential to a successful offensive of attack and the winning of the objective. Not so much as formerly are we groping in the dark.

Routine in hospitals, the aid so useful to the hospital man, should be taken up still more widely by the man in the outer zone—the man without hospital facilities. Through state boards of health or through the nearest laboratory he should avail himself as he may of this possible aid. A little time spent in investigating this availability will pay him a thousandfold. By mail or express this may be brought to his door with surprising promptness. Of course he must know how to read. He must familiarize himself sufficiently to interpret the findings made. But it is the part of the craftsman to learn the refinements of his trade.

INTERNECINE WARFARE

Human nature does not change vastly, if we are to give much credence to history up to date. Since the days of Hamurabi the Babylonian, down through the Hippocratic period of the Greeks to the present day, the conduct of physicians toward their confreres and their patients has been embodied in codes in an endeavor to in a measure combat the tendencies of mankind to drift into hedonism rather than follow the kinder gods of high ideals in the practice of their craft.

No, human nature does not change, and a house divided against itself is in danger of falling at least. Never perhaps was the legitimate medical profession more assailed by cults in its progress than in the present day. Chiros and orthos, Abramites and faith curists, all seek to impeach our art and batten on those who allow their emotional ignorance to dominate their judgment for better or for worse—so often for the worst. And yet we fight among ourselves—we find ourselves appointing committees on "ethics" in our societies, in an endeavor to control the activities of such of our own profession as seek to carry the unfair element, the abrogation of professional loyalty, into their professional work. Internecine warfare is the deadliest of all warfares, weakens a nation the most. Is it not about time that we adopt a broadminded, co-operative principle in our attitude toward each other, and those who apply to us for physical aid? Can we hope to win or deserve the public confidence and respect if we do not earn it? Does unethical conduct pay? Temporarily in the individual instance it may—in a few dirty dollars, gained at the expense of our own self-respect and the reputation of a fellow craftsman, deliberately assailed, to enable us to accomplish what is little better than a theft of an individual case. But none of us knows it all. Each of us makes mistakes. It reminds one of the old-time toast:

> "There is so much good in the worst of us
> And so much bad in the best of us
> That it ill behooves any of us
> To criticize the rest of us."

Criticism in the sense meant is not constructive, but destructive, and can only weaken the morale of the professional body as a whole.

A year ago the State Medical Association, in convention assembled, on the motion of Dr. J. C. Landenberger, rose and pledged itself to refrain from adverse criticism of one another, either personal or professional. This was a vast move in the right direction—a true manifestation of a proper *esprit de corps*. That pledge was given *viva voce*—a word of honor. But a word of honor should be enough. For what does it profit a man to be without honor—to know in his own soul that his honor is foresworn, besmirched, or to his fellow man—dead? Honesty is still the best policy. Were we to present an unbroken front to criticism from without and refrain from criticism within, surely then we could dispense with our committees on ethics, or else let those already appointed rot in desuetude, because not needed.

Utah State Association News Notes (reported by J. U. Giesy, associate editor)—The councilors of the State Association, the committee on post-graduate work, and the committee on scientific work, met September 22, 1924, in joint session for the purpose of taking up the work for the ensuing year and determining the date for the next state convention.

It was decided to combine the post-graduate work with the state convention session, and it was recommended that the latter be held the first or second week of September, 1925. The actual date was left to the decision of the program committee.

It might not be amiss to once more call the attention of the local medicos of Salt Lake, and that of all visiting members of the fraternity, to the fact that there is a reference library in the Public Library available for their use. The library committee of the Salt Lake County Society invites a greater use of the library, open six days and nights in the week. Furthermore, what better evidence of interest and good-will could any of us give than the donation to this collection from time to time of some book or books, calculated to keep it up to date? There is a loan section as well as the main body of the library. In this any of us may place current volumes and still retain ownership. Efforts are being made to collect valuable publications which will eventually constitute authentic historical records of the progress of medical and surgical craftsmanship. Any of the members who don't know what is up there waiting for their inspection should go up and find out.

Along the same line there is talk of the establishment

by the staff of St. Marks' Hospital of a memorial library on surgery, as a testimonial of esteem to the late Dr. John Critchlow. If plans carry out, this will be an endowed library standing as a permanent monument to Dr. Critchlow, in recognition of his skill and works. How better could the regard of his fellow workers be shown? Old friends, old books, both tried and proven. They are among the best of God's gifts.

Here's one for the card of the cults. Of some sixty chiros registered in Utah last year, ten have moved away and ten are no longer practicing according to latest registration department reports.

Sixty little Indians fighting against "morte,"
Twenty quit the game an' that left—forty.

With apologies to nobody under heaven. The cults come and go, but the regular profession stands like a strong rock against which the waves of emotionalism and superstition and gullibility break in vain. Some things are self limited—work their own termination in time.

The Department of Legislation reports a meeting with the State Department of Registration to consider the several reported instances of illegal (unregistered and licensed) practice in the state. Names and circumstances were cited for investigation and action, which is promised in all instances where it is found to be justified.

Health Education in Public Schools Urged—A letter stressing the importance of health education in the public schools was sent to Utah school superintendents recently by Dr. C. N. Jensen, state superintendent of public instruction.

The State Department of Education for a number of years has been without a health director, due to the fact that many agencies are engaged in this work, and use should be made of such institutions as the State Board of Health. Utah Public Health Association, the University of Utah, and the Utah Agricultural College, Dr. Jensen said. In this way health training can be carried on until the problem of duplication can be clarified by legislation.

Have you been Schicked? Soon the question may become as common as the inquiry as to whether one has a little "fairy in your home," now appears on the advertising page. An intensive campaign toward the application of the test is being carried forward by the State Board of Health in the public schools. Again we take a step forward in the prophylactic field. Jenner, with his dairy maids and cowpox, made smallpox a well-nigh beaten disease. We vaccinate against typhoid, and the process has done wonders in the armies of all nations where used, as well as in the private world. Antitoxin robbed diphtheria of the larger part of its dread menace, when actually incident. Why not, then, the test for immunity, and the use of toxin-antitoxin in an indicated need? Prevention is better than cure, and the doctor goes merrily forward working himself out of jobs.

Minutes of the Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—The regular meeting of the Salt Lake County Medical Society was held at the Commercial Club, Salt Lake City, Utah, September 22, 1924. Meeting was called to order at 8:05 p. m. by President A. A. Kerr. Fifty-one members and four visitors were present.

Minutes of the previous meeting were read and accepted without correction.

No clinical cases were presented.

Scientific program consisted of three papers on Anesthesia. Ray T. Woolsey gave an interesting paper on Ethylene. He discussed the early use of the gas, its physical properties of physiological effects, danger signs and symptoms of the patient during anesthesia, and described the effect of the drug on several patients to whom he had administered the gas at the County Hospital.

C. A. Nyvall read a paper on Ether Anesthesia, going into the history of its use, physiological effects on the various systems, methods of administration, contra-indications, and he compared ether with nitrous oxide.

E. F. Root read a paper on Local Anesthesia, reviewing history of cocaine and novocaine. He described the various methods of inducing anesthesia, such as nerve blocking, infiltration, spinal anesthesia and alcohol injection.

Discussion was opened by M. C. Lindem and continued by O. C. Scott, J. R. Llewellyn, W. C. Schulte and E. G. Hughes of Provo.

The applications of G. H. Pace and Edwin R. Murphy were voted upon and they were elected unanimously, thirty-five members voting. The applications of E. R. Van Cott and S. G. Paul were read and referred to the board of censors.

Walter L. Felt gave a report on the Municipal Baby Clinic and discussed future administrative plans.

Report of the committee on public health and legislation was read by the secretary, in the absence of R. R. Hampton, chairman.

The verbal report of the medico legal committee was given by E. F. Root, who also read the report of the House of Delegates at the state convention in Logan last June.

Communication was read from Fred L. Adair, Minneapolis, Minn., representing a joint committee on maternal welfare of the American Child Health Association, American Association of Obstetricians and Gynecologists, and American Gynecological Society, offering assistance in promoting papers on obstetrics and infant welfare.

Minutes of the Salt Lake County Medical Society, October 13, 1924—The Salt Lake County Medical Society meeting was held at the Commercial Club, Salt Lake City, October 13, 1924. The meeting was called to order at 8:05 p. m. by President A. A. Kerr. There were fifty-eight members and eight visitors present.

S. H. Allen presented a pair of male twins, six months old, with unoperated cleft palate and hairlip, and two cases with the same condition upon which he had operated. He emphasized the importance of putting adhesive over the lip at birth, thus avoiding the jaw-breaking operation.

H. P. Kirtley read a very interesting paper on Post-Partum Hemorrhage. He discussed the local statistics, showing that one mother in a hundred has a hemorrhage. He gave the causes and discussed the treatment, both prophylactic and active. This paper was discussed by Sugden, Woolsey, John Z. Brown and Earle Van Cott.

T. C. Gibson read a very interesting paper on Pernicious Anemia, describing clinical course, diagnostic points and blood picture. He discussed the treatment; hygienic, dietetic, removal of foci of infection, drugs and transfusion. Discussion was opened by Ralph Pendleton and continued by W. L. Lindsay and T. A. Flood.

T. B. Beatty, secretary of the Utah State Board of Health, discussed the typhoid situation in Utah. He discussed the morbidity of the disease from 1906 to 1923. He described the Brigham City epidemic of 1923 and gave as his opinion that the pollution of the water was the cause of the present epidemic in Salt Lake City, and emphasized the need of sufficient chlorinization.

Willard Christopherson, city health commissioner, gave the data relative to the typhoid situation in Salt Lake City. He discussed the cause and also emphasized the necessity for sufficient chlorinization. This talk was discussed by T. B. Beatty, H. P. Kirtley and C. M. Benedict.

Fred Stauffer made a motion that resolutions be drafted endorsing the Board of Health in its efforts to use sufficient chlorine to sterilize the drinking water of Salt Lake City. Motion seconded. Discussed by Helmina Jeidell, F. H. Raley, who suggested that prophylactic vaccination should also be endorsed, and Earle Van Cott. Fred Stauffer accepted F. H. Raley's suggestion and motion was carried.

A communication was read from the Prescription Pharmacy relative to their plans to have a physicians' directory in the telephone book. John Z. Brown moved that it be optional with each physician whether or not he would have his name in the city directory. Seconded and carried.

Ralph Pendleton moved that the Society get behind the proposal of the Prescription Pharmacy and endorse it. Seconded and carried by rising vote.

The applications and transfer cards of Jeul Trowbridge and G. Wallace Hanks were read. The Society decided to vote upon their applications at the next meeting. Earle

Van Cott and S. G. Paul were unanimously elected for membership in the Society.

Sol G. Kahn reported for the committee on public health and legislation.

A. W. BURROWS, M. D.
1854-1924

Died at the Holy Cross Hospital, October 16, 1924—Dr. Arthur W. Burrows, of cerebral hemorrhage coincident upon arteriosclerosis.

Dr. Burrows was born in England, but came early to the United States. He spent his childhood and youth in Illinois, studied medicine and came to Utah over thirty years ago, having practiced his specialty of eye and ear diseases in Salt Lake City ever since.

Some sixteen months ago he suffered a cerebral hemorrhage, resulting in a hemiplegia of the left side and has had several recurrent attacks during the last year.

Dr. Burrows is survived by his widow, a married daughter and a sister resident in Salt Lake, and a brother living in the East.

He was 70 years of age at the time of his death.

Nevada State Medical Association

W. M. EDWARDS, M. D., Mason.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

Proceedings of the Twenty-first Annual Session (reported by C. E. Piersall, secretary and associate editor).

The twenty-first annual meeting of the Nevada State Medical Association was called to order by the president, H. J. Brown, September 12, 1924, at 10 a. m., at Bowers' Mansion. Because of the late hour, the president did not address the Association. The program was as follows:

1. Henry Albert, Reno, Nev., "The Laboratory Aspects of Amebiasis in General." 2. L. M. Boyers, Berkeley, Cal., "Human Amebiasis as a Disease Entity." Discussion of papers numbers 1 and 2 by A. P. Lewis, J. T. Watkins, A. Huffaker, C. G. McPheeters, T. A. Bath, L. M. Boyers. 3. L. L. Stanley, San Quentin, Cal., "Testicular Implantations." Discussion by S. S. Bogle, J. T. Watkins, Henry Albert, C. F. Welty, A. W. Morton, W. W. Washburn, L. M. Boyers. 4. James T. Watkins, San Francisco, "The Treatment of Some Shoulder Injuries." Discussion by A. P. Lewis, A. W. Morton, T. W. Bath, A. Huffaker. 5. Cullen F Welty, San Francisco, "Mastoid Surgery." Discussion by J. L. Robinson, J. T. Watkins. 6. Leo P. Bell, Woodland, Cal., "Banti's Disease From Medical and Surgical Aspects." Discussion by E. P. Sloan. 7. George Carr, Reno, Nev., "The Mouth and How It Concerns Us From a Health Standpoint." Discussion by C. F. Welty, G. C. McPheeters, W. E. Stevens, A. R. Kilgore.

The business meeting was called to order by the president, H. J. Brown, at 8 p. m. S. K. Morrison moved, and T. W. Bath seconded, that the reading of the last minutes be omitted. Carried. A communication from the department of physical education for women of the University of Nevada was read, asking for suggestions from the medical men of our state who might help the physical education department. A motion was carried to refer this communication to the Washoe County Medical Society, with the request that a committee be appointed to act upon this measure. Another communication from the Near East Relief was read and referred to the public health and education committee for action. A communication from the Nevada Public Health Association announcing a lecture on the "Cancer Tragedy" at the Y. M. C. A., Reno, Nev., to be given by T. W. Huntington on Monday evening, September 15, was read. A communication from the chairman of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons was read and referred to the committee on public health and education for action.

The resolutions written by the necrology committee reported the deaths of George McKenzie, Reno, February 4, 1924; S. S. Jarrett, Carson City, August 13, 1924; C. E. D. Lord, East Ely, August 16, 1924. It was moved and seconded that these resolutions be adopted. Carried.

An explanation of the Gorgas Memorial was read by the secretary. This brought about considerable discussion, and it was moved and carried that the Nevada State Medical Association donate $100 to the Gorgas Memorial fund.

The report of the committee on public health and education was read by M. R. Walker and filed with the secretary. It was moved by J. La Rue Robinson and seconded by J. E. Pickard that the Hospital bill, as it was drafted two years ago, be sponsored by the Nevada State Medical Association. Moved by S. K. Morrison and seconded by A. F. Adams that the matter of the Medical Practice Act be referred to the Judicial Committee. Carried.

It was moved by T. W. Bath and seconded by S. K. Morrison that the names of the new members be accepted as members of the Nevada State Medical Association. Moved by M. R. Walker and seconded by R. H. Richardson that the secretary's report be accepted.

S. K. Morrison made his report as alternate delegate to the American Medical Association for the year 1924. M. R. Walker reported for Dr. Albert, the written report of the committee on public health and education, in which report he urged the physicians to take a more lively interest in schools and to increase the amount of information necessary for the parents, as well as their children. Moved by R. H. Richardson and seconded by M. A. Robison to accept Walker's report. Carried.

M. A. Robison asked if the Nevada State Medical Association will oppose the Sheppard-Towner Act when it comes up in our state legislature. H. J. Brown suggested that we could not amend it, as it is an existing law for five years, and that we then broaden the scope of the State Board of Health and ask the State Board of Health to appoint a physician as medical director; whereupon it was moved by J. L. Robinson that the Nevada State Medical Association oppose the Sheppard-Towner Act, and ask the legislature to not supply further funds for it, and that the president be given the power to appoint a judicial committee to care further after this matter. Carried.

It was moved by J. L. Robinson that the contributors to our 1924 program that are not already honorary members be voted as honorary members. Carried.

Election of Officers—M. A. Robison nominated W. M. Edwards as our 1925 president, and S. K. Morrison moved that the secretary cast a unanimous ballot for Edwards. Carried. It was moved by A. F. Adams that the secretary cast a unanimous ballot for A. J. Hood of Elko for vice-president. Carried. Moved by M. R. Walker that the secretary cast a unanimous ballot for A. F. Adams as second vice-president. It was moved by S. K. Morrison that the president cast a unanimous ballot for C. E. Piersall for secretary and treasurer. Carried. Moved by M. A. Robison that the secretary cast a unanimous ballot for George F. Pope as a three-year trustee. Moved by M. A. Robison that the delegate to the American Medical Association for two years be C. E. Piersall, and that the alternate delegate to the American Medical Association be W. M. Edwards. Seconded by S. K. Morrison. Carried.

It was moved by S. K. Morrison and seconded by Fuller that we accept the kind invitation of the Elko County Medical Society for the next annual meeting, the time of the meeting to be decided later by the officers of the Elko County Society and the Nevada State Medical Association officers.

It was moved by M. A. Robison and seconded by S. K. Morrison that a vote of thanks be given to H. J. Brown for his work in the Nevada State Medical Association for the past six years. It was moved by M. R. Walker and seconded by J. E. Pickard that we adjourn. Carried. Following the adjournment, E. P. Sloan presented a moving picture showing goiter operations.

The meeting of September 13 was called to order by the president, H. J. Brown at 9:30 a. m. The program continued as follows:

8. William E. Stevens, San Francisco, "Some Interesting Urological Cases in Women and Children." Discussion by Miley B. Wesson, Carl G. McPheeters. 9. W. W. Washburn, San Francisco, "Malignancy of The Duodenum, With the Report of an Unusual Case." Discussion by A. R. Kilgore, S. M. Sproat, Leo P. Bell. 10. V. A. Muller, Reno, "Adenoma of the Thyroid." 11. E. P. Sloan, "Goiter." Discussion of numbers 10 and 11 by W. W. Washburn, Raymond St. Clair, A. P. Lewis, Sanderson, A. R. Kilgore, J. E. Pickard, Leo P. Bell, S. K.

Morrison, A. Huffaker, M. R. Walker, T. W. Bath, Cullen F. Welty, V. A. Muller, E. P. Sloan. 12. A. W. Morton, San Francisco, "The Fractures That Should Be Operated." Discussion by A. P. Lewis, S. M. Sproat, H. A. Paradis, R. St. Clair. 13. Howard Naffziger, San Francisco, "Resume of Recent Advances in the Diagnosis and Treatment of Surgical Conditions of the Nervous System" 14. John Tees, Reno, Nev., "Acute Primary Pyelitis in Infancy." Discussion by A. Huffaker, G. Carl McPheeters, Cullen F. Welty, William E. Stevens, Miley B. Wesson, E. W. Beach. 15. G. Carl McPheeters, "Obstetrics and Prenatal Care." Discussion by Tees, Hodgins, Thompson. 16. Miley B. Wesson, San Francisco, "The Prostatic Median Bar, Complications and Treatment."

The following members were in attendance at various times during the meeting: D. G. Lynwalter, A. B. De Chene, W. M. Edwards, A. Huffaker, M. R. Walker, A. R. Da Costa, E. E. Hamer, C. W. West, J. L. Robinson, W. N. Kingsbury, C. E. Secor, D. A. Servoss, A. L. Thompson, F. W. Hodgins, G. L. Servoss, C. E. Piersall, H. A. Paradis, M. A. Robison, H. J. Brown, T. W. Bath, Raymond St. Clair, A. L. Stadtherr, B. H. Coples, W. H. Riley, Donald Maclean, R. H. Richardson, E. R. Magee, J. E. Pickard, A. F. Adams, Henry Albert, W. J. Circe, A. P. Lewis, J. A. Fuller, L. V. Smith, V. A. Muller, John Tees, W. L. Samuels, D. L. Shaw, B. Brown, H. L. Dalby, A. J. Hood, S. K. Morrison.

The following visitors were also present at various times during the meeting: W. E. Stevens, C. B. Marston, Mrs. L. M. Boyers, Mrs. Leo P. Bell, Cullen F. Welty, J. T. Watkins, A. W. Morton, W. S. Cann, A. R. Kilgore, A. O. Narvenson, S. M. Sproat, S S. Bogle, L. M. Boyers, Virginia De Bell, E. Yamao, F. Stalle, E. P. Sloan, H. O. Collinger, A. Kimmel, H. C. Naffziger, G. H. Sanderson, G. H. Marven, L. L. Stanley, E W. Albert, Leo P. Bell, G. C. McPheeters, G. F. Pope, Eugene Benjamine, W. W. Washburn, Edith Thomas, Miley B. Wesson, Edward Beach.

BioFood (Propaganda for Reform. Reported by Council on Pharmacy and Chemistry of the A. M. A.)—This is a "patent medicine" combination put out by a concern that seems to go under various names: "Biochemical Food Products Corporation," "Bio-Products Company," and "BioFood Corporation." BioFood has been shrewdly and cleverly marketed. The impression is given that the stuff is a food and not a medicine. Its high price—$10 a treatment—impresses the public with its value. The treatment consists of a box labeled "A" and two bottles labeled, respectively, "B" and "C." BioFood is sold with the claim that our bodies are composed of twelve tissues containing sixteen elements, that our foods are deficient in these elements, and that BioFood supplies this deficiency and thus "builds up the body by supplying all the elements which nature intended man to have, and thus gives nature a chance to create her own antitoxins and effect a cure." BioFood has been advertised extensively in newspapers, in self-styled medical journals, and by cruelly mendacious advertisements in the Chicago street-cars. The A. M. A. chemical laboratory reports that BioFood "A" may be considered to be composed essentially of milk sugar and flavoring in which has been incorporated small amounts of iron, calcium and manganese salts and phosphate, either as such or in combination such as glycerophosphate. The laboratory found BioFood "B" to be tablets which may be considered to consist essentially of potassium acetate, sodium chlorid, sodium sulphate, and sodium citrate. BioFood "C" was a liquid resembling solution of iron and ammonium acetate, U. S. P., modified by the addition of very small amounts of calcium, magnesium and sodium and phosphate compounds.—Journal A. M. A.

Hectine (Propaganda for Reform. Reported by Council on Pharmacy and Chemistry, A. M. A.)—Hectine is said to be sodium benzo-sulphoaminophenyl-arsenate and, therefore, is similar in composition to the product "Atoxyl." Atoxyl is one of a class of arsenical preparations, the use of which has been generally discontinued in favor of the products of the arsphenamin type. Hectine has not been accepted for New and Non-official Remedies, nor has the American agent, George J. Wallau, Inc., requested such recognition by the Council on Pharmacy and Chemistry.—Journal A. M. A., September 20, 1924, page 942.

Medical Economics and Public Health

"Doctors" and Doctors and Their Taxes—"A whole line of citizens have taken upon themselves the care of the health of the individual and the family, and have appropriated the title of 'doctor,'" says Herman Goodman of New York City, in a letter to CALIFORNIA AND WESTERN MEDICINE. "Types of 'doctors' have multiplied beyond the telling. Self-styled 'doctors' of chiropody; 'doctors' of chiropractic; 'doctors' of health; even 'doctors' of laboratory health; not to speak of the 'doctors' of the seventy cults recently listed by one health board. The populace at large enjoys these cults and faddists, and attends their sessions, calls upon them for services requiring some knowledge of the human mechanisms. As long as the 'doctor' does not actually use the knife or prescribe through ordinary druggists, he is safe and within his rights as a citizen who has assumed as his patriotic duty the care of the health of the individual and the family. Let diphtheria rage through the community; let the enlarged breast be rich in cancer and not in fat; let the mal-alignment of the vertebrae to be tuberculosis—what matter—the drugless healers must go on!

"At whose threshold should all this be laid? Very recently in New York, an attempt was made to register physicians annually (at a fee, of course) and then to have the machinery set up to investigate unlicensed and illegal practitioners. It was not possible to get the doctors to agree on the utility of this legislation. It seemed that it was penalizing the innocent to reach into the maelstrom of the guilty. The physician is already burdened by fees and taxes. He pays for his medical student certificate with which he enters medical school. He pays for the privilege of taking and passing the examinations licensing him to practice medicine and surgery; he pays to register in the county in which he practices; he pays for the privilege of prescribing narcotics to patients in pain (for a while he paid both a state and federal tax). The physician is *numbered* to prescribe alcohol, and to purchase it for office use, although how and why no fee was attached to this nuisance is not understood. So perhaps it is no wonder that it was not possible to get physicians to agree on giving themselves another tax, another set of papers to fill out annually, and another number to add to the growing list each of us has.

"It occurred to us, and I have prepared an editorial comment for Medical Review of Reviews, that honest doctors can change many things without more laws and more numbers. Suppose we agree that instead of a door plate or window sign which reads, Doctor Jones, or as some will have it, J. Jones, M. D., we have our signs read:

John Johns, M. D.
Licensed to practice medicine and
Surgery in this State

"If all who may honestly do so, take this means of informing the world at large that the provisions of the state law of their community have been satisfied, it will put the outcast where he deserves to be—outside the pale The objections to making public one's privilege to legally carry on the profession of physician and surgeon cannot be strong. No physician objects to having his narcotic license number printed on his prescription blank. No physician can object to having his license and county certificate in his office consulting room, although the old style of having them framed there has passed with the overstuffed furniture. Putting oneself on record makes the illegal practitioner either quit or perjure himself!

"The protection once afforded by the title of 'doctor' to the health seeker has become a spider web. Let us take the matter up; let us be honest; even if it entails a larger placard over our door bell, or two lines instead of one on our letterhead, and office card."

"More Than Most Men the Family Physician Feels the Tragedy of Isolation"—*William Osler.*—In elaborating upon this subject a special writer (Lancet) believes that in these days of specialization it is no longer easy for an individual medical practitioner to cope single-handed

with the various aspects of disease met with in what is still called general practice.

It is not at all unusual to find multiple partnerships in which the different members of the firm specialize in various departments of medical work to the benefit of all concerned. A firm of medical partners which includes an operating surgeon, an obstetrician, an x-ray operator, an oculist, and possibly an ear and throat specialist, is able to cope with almost any conceivable variety of ailment which may be met with in practice, without any necessity for calling in outside help, and therefore occupies a very strong position as compared with an isolated individual practitioner who must necessarily refer his patients to an independent specialist in many circumstances.

Moreover, since the introduction of the Insurance Act, it has become more difficult for a young medical practitioner to acquire a practice by the simple process of putting up his plate. It is therefore not surprising to find that medical partnerships are becoming more numerous in England.

The advantages are obvious. Responsibility can be shared; the capital value of the practice can be maintained better; outside competition can be more easily met; holidays can be arranged without loss, and team-work can be carried on with all its benefits. It has to be admitted that a man who enters a medical partnership must be prepared to sacrifice a certain amount of independence; but the advantages to be gained are so great that there is no doubt the arrangement would become far more general except for the unfortunate differences that not infrequently arise.

Experience in adjudicating in partnership disputes has convinced me that many of the difficulties peculiar to medical partnerships can be obviated. No medical partnership can be carried on satisfactorily unless there is mutual goodwill between the partners. Consequently, anything likely to become a cause of disagreement must be avoided studiously from the outset. Jealousy is perhaps the rock on which a medical partnership is most likely to be wrecked, and should be carefully guarded against. Mutual trust and loyalty are essential, and each partner should realize that he must play the game in the public-school spirit.

The author then goes quite fully into the nature and essentials of contracts.

Annual Business Statement of the Metropolitan Life Insurance Company—Every citizen of the United States is interested in the Metropolitan Life Insurance Company, whether he knows it or not, and whether or not he wishes to be so interested.

Any organization that has nearly ten billion dollars of life insurance in force in over thirty million policies; that holds as assets billions of dollars' worth of bonds of hundreds of government and private enterprises; that pays over 1400 claims daily; that issues over 17,000 new policies daily; that issues over two billion dollars of new insurance annually; that pays over 130 million dollars to policy holders annually, as does the Metropolitan, constitutes a power for good or evil so vast that it is beyond the grasp of the average mind.

Those of us who are incapable of fully understanding and therefore incapable of criticizing—if we would—the purposes and methods of a business so vast, rest in serene confidence—as we should—that our present laws, law-enforcement machinery, as well as the good intentions of the company's controlling influences, are co-operating effectively to insure the stability of our largest business. That confidence is strengthened by what we do know of the Metropolitan policy of service to humanity.

We can all appreciate the fact that the Metropolitan, as well as other great life insurance companies, "wars effectually upon disease, to lessen suffering and lengthen life. It welcomes strangers to a strange land and helps them find friends and homes. It houses thousands of families through lending money for building purposes. It seeks better relations between employer and employe, and improved living conditions for the worker. Its insurance provides money to educate children, to shield widows and orphans, to yield pensions for old age, to pay off mortgages, to compensate for sickness and accidents, to conserve savings, to repay corporations and other businesses for financial losses resulting from death within their ranks.'"

Physicians, nurses and all others engaged in the campaign for better health especially realize something of the value of two and one-half million visits to policy holders by public health nurses and the distribution of over thirty-three million pieces of better health literature annually. As physicians, we know from experience that the Metropolitan can be counted on to sustain, and fight for if necessary, the upholding of medical and health standards resting upon the firm foundation of adequate education for all who work in the broad field of medicine, including public health and so-called health welfare.

"Hospital" and "Dispensary" Defined—Legally in Ohio "any institution or establishment, public or private, for the reception and care of persons for a continuous period longer than twenty-four hours, for the purpose of giving advice, diagnosis or treatment bearing upon the physical or mental health of such person, shall be considered a hospital."

"Any institution or establishment, public or private, for the purpose of giving advice, diagnosis or treatment bearing upon the physical or mental health of an individual, shall be considered a dispensary; provided that a hospital and the quarters of a licensed practitioner of medicine used for his private practice shall not be deemed to come within the meaning of this definition."

Periodic Health Examinations—An editorial (Atlantic Medical Journal) discussion of this subject says:

"There is marked criticism of the Life Extension Institute which has apparently made this a commercial venture. It is universally recognized as a desirable thing to do, but the criticism comes because it has been commercialized—and it has been commercialized because the doctors don't do it. Some of them can't, others won't. Therefore the opportunity for commercializing. It is highly desirable that the doctors should do it: First, that they should understand how to do it; second, that the patients should realize the importance of it, and third, that the doctors should make appointments with the patients to make these periodic examinations of the apparently well.

"These examinations have been endorsed by the American Medical Association and by the State Medical Society as being entirely ethical. Doctors have been urged to take the attitude toward their patients that the dentists do, sending them a little note and requesting them to appear for a general going-over. Some doctors fear that this action will be regarded as unethical and that patients would consider they were commercial, rather than solicitous for their health. There can be no question of the financial profit accruing to the doctor from the general adoption of this custom. There can be even less question of the health profit accruing to the patients. It can be confidently expected that from the standpoint of dollars and cents the future doctor versed in preventive medicine will have a larger income with a lesser strain than will he who clings to the idea that the fire is not to be put out until the smoke is so intense as to suggest that it is a real and dangerous one."

Advertising Today Is a Promise of Business Performance, says H. J. Donnelly, Jr., in the Annals of Political and Social Science. It is a creative agency, constructive in its nature, the interpreter of business ideas. As an all-important element in distribution, it expresses the personality of the advertiser, his hopes and his desires. In its form it is simplicity itself, with no complicated machinery to become involved, provided, however, this simplicity is expressed in terms of Truth.

If CALIFORNIA AND WESTERN MEDICINE did not believe *our* advertisers keep the promises they make, their copy would not be accepted. Criticisms and complaints are promptly investigated, and, if found justified, contracts are canceled or copy changed so that it *is* "expressed in terms of Truth." You are, therefore, safe in patronizing our advertisers. It is, in fact, an obligation on your part, as they are supporting *your* journal.

We Should Also Know Our California Problem—Chapter 187 of the laws of 1924, laws of New York, a measure fostered by Senator William T. Byrne of Albany county, established a temporary commission "to inquire into and report upon the number, distribution and condition of crippled children throughout the state, and the existing facilities and legal provisions for promoting the care,

treatment, education and general welfare of such children, and to recommend means more adequately to meet their needs."

Costs of Dental Service to Children—As a result of four years of study and investigation, the A. I. C. P. (Association for Improving the Condition of the Poor) authorities have arrived at the interesting conclusion that it costs $4 per year per pupil to give a reasonable amount of dental supervision to a large group of school children. This is surprisingly expensive. Dentists inform us that they would like to have the opportunity to render this service to large groups at a smaller figure. However, it is an advisable service and ought to be rendered to every person of whatever age.

For persons really unable to pay, the costs whatever they may be are an appropriate charge. On the other hand, those able to pay should have the work done by their own dentists and should pay for it. This principle the prosmoter of wholesale dentistry and medicine refuse to recognize. They insist that the service must be rendered free and by whatever wholesale method appeals to them. Maybe they will accomplish their purposes, but it is not likely that they will make permanent progress.

The Ban on Heroin (Propaganda for Reform)—As long ago as 1917, the Council on Pharmacy and Chemistry deleted heroin from its handbook of Useful Drugs, saying: "The council holds that heroin has no advantage over morphin; that it has every disadvantage of morphin; and that on the whole its introduction has been harmful, in that it furnished a specious means on the one hand of avoiding the well-founded popular fears of morphin by substituting another habit-forming drug." In 1920 the House of Delegates resolved, "That heroin be eliminated from all medicinal preparations; that it should not be administered, prescribed or dispensed; and that the importation, manufacture or sale of heroin should be prohibited in the United States." The recent Congress enacted, June 7, 1924, a bill prohibiting the importation of opium intended for the manufacture of heroin. The Federal Narcotic Control Board has announced that it will not authorize the importation of any opium intended to replace opium or morphin thereafter converted into heroin. This will prevent the open manufacture of heroin in the United States, and as none can be lawfully imported, heroin will soon disappear from the legitimate market.—Journal A. M. A.

"P-O-4" Not Admitted to N. N. R.—The Council on Pharmacy and Chemistry reports that "P-O-4" is the proprietary non-descriptive designation under which Lehn & Fink, Inc., New York, market a preparation alleged to be a mixture of two parts of tribasic magnesium phosphate and one part of tribasic calcium phosphate. The preparation is claimed to be a "therapeutically balanced" mixture which is "A New Antacid for symptoms of hyperacidity, such as 'acid' stomach, pain, heartburn, acid regurgitation, distress, and gas." The council explains that, in order that a correct estimate of the therapeutic value of tertiary magnesium phosphate and tertiary calcium phosphate may be gained, it is important that physicians use them under their proper names and base the selection of one or the other on the requirements of the particular patient. The council found "P-O-4" inadmissible to New and Non-official Remedies, because the use of a mixture of tertiary calcium phosphate and tertiary magnesium phosphate in fixed proportions under a non-descriptive name is irrational, and the claim that it is "a therapeutically balanced" mixture is unwarranted.—Journal A. M. A.

The California Safety News, official publication of the Industrial Accident Commission, has been enlarged and improved with illustrations and a colorful frontispiece. During the first half of the present year the volume of business transacted by the State Compensation Insurance Fund increased 9.61 per cent. The Fund to date has returned a total of $7,915,340.25 to policy-holders. The medical fees paid to California doctors during the first six months of 1924 amounted to $654,530.94.

BOOKS RECEIVED

Fundamentals of Human Physiology. By R. G. Pearce, M. D., formerly Director Medical Research Laboratory, Lakeside Hospital, Cleveland; formerly Assistant Professor of Physiology, University of Illinois, Chicago, and J. J. R. MacLeod, M. B., D. Sc., Professor of Physiology in the University of Toronto, Canada; formerly Professor of Physiology, Western Reserve University, Cleveland, Ohio. Assisted in the Third Edition by Norman B. Taylor. Third Edition. St. Louis: The C. V. Mosby Company, 1924.

Social Problems of Medicine. Addresses before the American Medical Association at Chicago, June 9 and 10, 1924. By William Allen Pusey. Chicago: American Medical Association Press, 1924.

The Inheritance of Acquired Characteristics. By Dr. Paul Kamerer, University of Vienna, Institute for Experimental Biology. Translated by A. Paul Maerker-Branden. Illustrated. Boni & Liveright, Publishers, New York.

The National Health Series. The last six volumes of the twenty health books edited by the National Health Council, as follows:

Adolescence; Educational and Hygienic Problems. By Maurice A. Bigelow, Ph. D. Price 30 cents, net.

Exercises for Health. By Lenna L. Meanes, M. D. Price 30 cents, net.

The Child in School; Care of Its Health. By Thomas D. Wood, M. D. Price 30 cents, net.

The Health of the Worker; How to Safeguard It. By Lee K. Frankel, Ph. D. Price 30 cents, net.

Home Care of the Sick. By Clara D. Noyes, R. N. Price 30 cents, net.

Your Mind and You; Mental Health. By George K. Pratt, M. D. Price 30 cents.

Published by Funk & Wagnalls Company, 354-360 Fourth avenue, New York.

How Is Your Heart? Intimate talks on the prevention of heart disease and on the care of an already damaged heart. By S. Calvin Smith, M. D. Boni & Liveright, Publishers, 1924, New York.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, etc., etc. By leading members of the medical profession throughout the world. Edited by Henry W. Cattell, M. D., with the collaboration of fifteen other well-known physicians. Volume III, Thirty-fourth Series, 1924. Philadelphia and London: J. B. Lippincott Company, 1924.

X-rays and X-ray Apparatus. An Elementary Course. By John K. Robertson, Associate Professor of Physics, Queen's University, Kingston, Canada. New York: The Macmillan Company, 1924.

Organotherapy in General Practice. Copyright, 1924, by G. W. Carnrick Co., New York. The Lord Baltimore Press, Baltimore, Md.

Students' Guide to Operative Surgery. By Alfred T. Bazin, M. D., Assistant Professor of Surgery and Clinical Surgery, McGill University. Assisted by F. A. C. Scrimger, M. D.; F. J. Tees, M. D.; L. H. McKim, M. D.; I. McL. Thompson, B. Sc., of the Departments of Surgery and Anatomy, McGill University. Montreal: Renouf Publishing Company.

Annals of Roentgenology. Volume IV. **Normal Bones and Joints Roentgenologically Considered.** 220 Roentgen Ray Studies on 61 full page plates and 34 text illustrations. By Isidore Cohn, M. D., Professor of Clinical Surgery, Tulane University. With a foreword by Rudolph Matas, M. D., Professor of General and Clinical Surgery, Tulane University, New Orleans. New York: Paul B. Hoeber, 1924.

"I want to say in no uncertain terms that the medical schools are not making family doctors fast enough to supply the demand. It takes too long and costs too much money to educate a medical student to the point where he can comply with the medical laws of this state. The medical schools are making specialists, who flock to the cities in fierce competition with each other. 'Well,' you say, 'what has that to do with keeping out the quacks? We notice there are more quacks in the cities, where we know there are too many physicians.' It is a fact that there are too many physicians in the cities, but they are not family doctors. The few who are doing general practice are, generally, connected with some big clinic."—J. E. Dildy, M. D. (Texas State Journal Medicine).

BOOK REVIEWS

Diagnostic Technic. By Prof. Dr. Julius Schwalbe. 851 pp. Illustrated. Leipzig: Verlag von George Thieme. 1923.

The general practitioner will welcome heartily the "Diagnostic Technic" of Schwalbe. This book, as well as his "Therapeutic Technic," was written for the special use of the general practitioner. Some of the foremost German scientists collaborated in outlining the modern diagnostic methods of all branches of medicine, and for this reason "Diagnostic Technic" represents a valuable contribution for the understanding of diagnostic possibilities to the general practitioner.

Modern methods of laboratory work are described in detail. Not only does the book treat the subject of secretion and excretion examinations, but also do the authors explain the finer function tests of the different organs (liver, spleen, kidneys, endocrine system, etc.) and methods of bacteriological and serological examinations.

The book contains many photographs and illustrations, valuable for the understanding of the various articles. Schwalbe's "Diagnostic Technic" is recommended to everyone who is desirous of obtaining the latest contribution to medical diagnosis, and especially for the doctor in the country who has to work without the help of a specialist. A. S.

Improved Methods in Hospital Management: A Treatise on the Introduction of Business Methods in the Management of Modern Hospitals. By G. W. Curtis, Superintendent of Santa Barbara Cottage Hospital, Santa Barbara, California. Hospital Service Exchange, Distributors, Santa Barbara, California, 1924. Published September, 1924, The Schauer Printing Studio, Inc., Santa Barbara.

Of the score or more books on hospital management, the attractive little volume of G. W. Curtis is the best. It is the only book that covers its subject fully in a simple straightforward manner, easily understood, and easily carried out.

No hospital worthy of the name can do less than what Curtis includes in his book, and to do more, except in vast complicated organizations, is a useless luxury.

The system so well outlined in this book is, and has been employed in California hospitals for a good many years. Many of them follow the practices laid down here almost exactly and scores of others at least base their work upon the principles contained in this book.

Every hospital and every person connected with hospital management will be able to meet his problems more intelligently and more economically by adopting Curtis' book as a text-book of procedure. In producing this book, Mr. Curtis has rendered a service to the cause of better hospitals and better medicine that ought to prove epochal in its influence.

In the mechanical work of producing the book the publishers are to be complimented.

Modern Aspects of the Circulation in Health and Disease. By Carl J. Wiggers. 2nd ed. 662 pp. Illustrated. Philadelphia and New York: Lea & Febiger. 1923. Price, $7.50.

This book should be in the hands of every student of cardiology. It gives one an insight into the problems of physiology, pathology, and the dynamics of the cardiovascular system. The limited space makes it nearly impossible to give this book an adequate review.

The problems which are offered for study are intricate, but the author has not hesitated to oppose certain nearly orthodox principles by his own beliefs, these beliefs frequently backed by experimental evidence.

At present there is some expectancy among teachers and clinicians as to the value of sound recording and intensifying devices as a means of study of abnormal cardiac sounds. Wiggers almost anticipates the claims which are to be made in that field. He shows that their principal value will be in accurately fixing the time in the cardiac cycle when these abnormal sounds occur, it being nearly impossible for the ear to time these sounds properly when the heart is rapid or irregular.

Wiggers goes into detail on the long-disputed question as to the value of judging the efficiency and power of the heart by the intensity of its sounds, first explaining the Lewis theory that high arterial pressure is not a cause of the accentuation of the second sound. Lewis based this on experimentation in which he increased arterial pressure by aortic compression. Wiggers disputes this and offers his own experiments as evidence that the vibration comprising both first and second sounds increased not only in amplitude, but in the number of vibration when the ventricles increased in vigor and the blood pressure was simultaneously raised. The author also made a searching investigation as to the significance of accentuated and enfeebled heart sounds by experimentally modifying conditions in the circulation: First, slowing the heart with consequent fall in both systolic and pulmonic pressure; result reduced intensity of both heart sounds; second, increasing the total resistance in the systemic circuit and thereby elevating arterial pressure; result accentuation of both sounds; third, increasing the systolic discharge and work of the ventricles; result increase of both heart sounds.

The results of the above experiments show that the relative intensity of the first sound may be used as a clinical index of the vigor with which the ventricle contraction is carried out.

The book is full of details of carefully performed experiments by a real scientist. The book should be studied; do not miss it. H. S.

The Science and Art of Anesthesia. By Colonel William Webster. 214 pp. Illustrated. St. Louis: C. V. Mosby Company. 1924. Price, $4.75.

"The Science and Art of Anesthesia," the latest of the contributions to the literature of anesthesiology, presents an excellent shorter manual for the use of students and practitioners. Dr. Webster's activities in the fields of physiology, pharmacology, and pathology especially fit him for this work. It gives in its 206 pages a remarkably comprehensive summary of the scientific discoveries in anesthetics to date, and their practical application in surgery. In the pages devoted to what he terms the art of anesthesia, he condemns routine methods and emphasizes the necessity of considering the individual patient. There is much valuable advice in the chapters on pre- and post-operative treatment, effects of temperature and moisture on post-operative cases, etc.

The newer anesthetic agents, such as ethanesal and ethylene, are discussed briefly, and a conservative policy as to their adoption advocated.

In all respects it is a valuable handbook for those interested in anesthesiology. M. E. B.

Modern Urology. In original contributions by American authors. Edited by Hugh Cabot. 2 vols. 2nd ed. Illustrated. Philadelphia and New York: Lea & Febiger. 1924. Price, $18.

This is undoubtedly the best work published on urology in any language, and the thirty-eight monographs have been so correlated that it is not only a reference book for the specialist, but is an ideal text-book for students or the general practitioner.

In the five years that have elapsed since the first edition there have been many advances in the field of urology, and this necessitated a revision. Death has claimed two of the original contributors, Drs. Walter J. Dodd and Paul Pilcher. The chapter written by the former on "The Roentgenology of the Urinary Tract" has been revised by Dr. Preston M. Hickley, while Dr. Pilcher's section on "Prostatic Obstruction" is well handled by Dr. James A. Gardner. The seven-page article of Dr. Edwin Beer on "Tumors of the Testicle" has been replaced with a very complete twenty-nine page chapter by Dr. Frank Hinman. The delightful introductory historical sketch from the pen of Dr. Francis S. Watson has been omitted from this edition because of lack of space.

Most of the articles have been carefully revised and more complete bibliographies attached. However, the sections on anatomy and physiology have not been changed, and are not in keeping with the high standard of the work. Judging from the dearth of bibliography, many of

them were originally prepared from text-books whose teachings are more or less vague and not in conformity with the findings of investigators of the past few decades.

The illustrations are better than before, since many of the poor photographs have been eliminated. The work is almost a monument to Max Brodel, as most of the drawings are the work of his pupils, W. P. Didusch alone furnishing eighty pictures in five articles. However, many standard text-book pictures are used and not credited to the sources. Another objectionable feature is the repeated duplication of long series of pictures in adjacent chapters.

The editor has on the whole kept the work well balanced, but there are a few glaring inconsistencies, such as allowing forty-three pages to be devoted to "Ureteral Stricture," while the all-important subject of "Genital Tuberculosis" is handled in a masterly manner in fory-six pages. Controversial subjects are satisfactorily disposed of by presenting the divergent views of authoritative students. In one chapter two references occur to articles not yet published by the author and his colleagues. The work is marred by typographical errors, such as omitting from Volume I the list of contributors (staff appointments), leaving incomplete the last sentence on page 803 (Volume I) by omitting three lines and placing Plate V (Volume II) in the wrong chapter and opposite page 446, instead of page 476.

Among other new material we find descriptions of the tabetic bladder from the urological standpoint, syphilitic hypertrophy of the vulva, granuloma inguinale, non-venereal genital ulcers, and an enlarged section on tertiary bladder syphilis. There has been added descriptions of the median bar punches, transplantation of ureters, elusive ulcer of the bladder, treatment of bilharziosis with tartar emetic and of chancroids by fulguration and copper sulphate, method of cultivating the gonococcus, etiology of diverticula of the bladder, and the results of variocele operations, as shown by the World War statistics. The peno-scrotal hypospadias operation of Bucknall, as described by Churchman is added, and for the cure of epispadias the Thiersch operation and Beck's operation have been replaced by the Young-Cantwell's technic. The few pages originally devoted to the use of radium in cancer of the prostate have been elaborated into a complete section, with bibliography, that is really a treatise.

This work deserves a place in every doctor's library along with Osler's Practice of Medicine and Howell's Physiology, and Dr. Cabot and his colleagues have earned the commendation of the entire medical profession

M. B. W.

Anesthesia. By James Tayloe Gwathmey, with collaborators on special subjects. Second revised edition. Illustrated. 799 pp. New York: Macmillan Company. 1924.

The second revised edition of Gwathmey's "Anesthesia" brings this valuable reference book up to date, by the elimination of the chapter on Electrical and Sequestration Anesthesia, and Mental Influence and Hypnosis, and by the addition of chapters on Intravenous Synergistic Anesthesia, Anesthesia During the World War, and Ethylene.

In commenting on ethylene, the author expresses his conviction that Luckhardt has indisputably established its place as an anesthetic agent, both safer and better than nitrous oxide. This opinion will need verification by the collected statistics of many anesthetists before being generally accepted.

Doubtless the omission of mention of the recent work of White of Boston on the carbon dioxide de-etherization method, the practical application of the researches of Henderson, Gatch and others, is due to the text having gone to print before White's article appeared.

The section on physiology and pharmacology of inhalation anesthesia entitles it to rank with Hewitt's work as authority on these subjects, and it will continue to be the standard text-book on anesthesia for surgeons, anesthetists, and students.

M. E. B.

The Biology of the Internal Secretions. By Francis X. Dercum, M. D., Ph. D., professor of nervous and mental diseases in the Jefferson Medical College, Philadelphia. 241 pages. Philadelphia and London: W. B. Saunders Company. 1924.

An interesting monograph, probably not intended and certainly not recommended to medical students or practitioners who hope to find within its pages text-book matter relating to the diagnosis or treatment of endocrine diseases. The reader who enjoys philosophic speculation will be stimulated to cogitation and reflection by many novel and surprising theories that are developed and elaborated in an intriguing manner. Thus he may be somewhat startled by the conception that disturbances or arrests of embryonic mesenchyme with concomitant involvement of the lymphatic system and thymus underlie all "great endocrine pictures." An extraordinary position is accorded the thymus, and its synergistic and antagonistic relations with the other ductless glands are expounded with great clarity but dubious reliability. The ground is thus prepared for a discussion of "glandular imbalances" resulting in "under and over compensations," and since simple primitive lymphoid tissue is then supposed to proliferate, the path is open that is assumed to lead to hypertrophies, neoplasms and malignancies.

The author's extensive clinical experience in nervous and mental disease bespeaks a thoughtful consideration of his views on the interrelationship of endocrine factors ("the interplay of hormones") in heredity and in the functional neuroses and psychoses. Future investigators may substantiate some of Dercum's theories and pay tribute to his vision, but at present the edifice he has erected seems to tremble on slender evidence and rather shaky foundations. Even so, the book emanates from a thinker and merits careful perusal, which, moreover, is an agreeable task, as the author's style is pleasing and attractive.

H. L.

Diseases of the Chest, and the Principles of Physical Diagnosis. By George William Norris, A. B., M. D., and Henry R. M. Landis, A. B., M. D. Third edition, revised. Philadelphia and London: W. B. Saunders Company. 1924.

The third edition of Norris and Landis has been enlarged and brought up to date, something necessary even in a textbook on physical diagnosis, since this science advances with the rest of medicine. One noteworthy evidence of this revision is the discussion on page 261 of the newer ideas concerning the causation of the mitral stenotic murmur. References to important late original literature are given throughout, especially desirable for the student since the majority are in readily accessible journals in English. The same plan of correlating pathology and physical findings, and of emphasizing the physics of physical signs has been followed, of course, and for those engaged in teaching is the most valuable feature of the book.

The illustrating has been most generous and continues to be of the former excellent type. As in most textbooks, photographs of the female torso are considerably in evidence, and as usual are selected for their pulchritude rather than their pathology. At times this strikes one as being in rather questionable taste. The paper and typography naturally are of the highest class.

Could the authors only be persuaded to continue the work to cover the examination of the entire body, an absolutely ideal textbook of physical diagnosis would result—something sorely needed in the English language. As it is, Norris and Landis' constitutes the last word on the physical diagnosis of conditions of the heart and lungs.

L. H. B.

Two Lectures on Gastric and Duodenal Ulcer. A record of ten years' experience. By Sir Berkeley Moynihan. 48 pp. New York: William Wood and Co. 1923.

This is a paper-bound volume of forty-eight pages. Lecture I—"On Some Problems of Gastric and Duodenal Ulcer" was delivered before the Hunterian Society of London, January 29, 1923, and appeared in the British Medical Journal February 10, 1923. Lceture II—"On the Treatment of Duodenal Ulcer" was delivered before the Harveian Society of London, March 22, 1923, and appeared in the Lancet, Volume 1, 1923.

In these lectures which are well prepared and entertainingly written, the author reviews his experience during a period of ten years. Seven hundred and eighteen cases are

reviewed. The operative results in these cases have been excellent, and the mortality exceedingly low.

Sir Berkeley makes a strong case for the surgical treatment of gastric and duodenal ulcer, but admits that certain ulcers heal under medical treatment.

Many of the cases treated medically recur; some develop the more serious complications, hemorrhage, perforation and malignancy, and the writer points out the great difficulty of keeping a patient who is free of pain and dyspepsia under the strict dietary regime for the time necessary to secure permanent healing.

In the final chapter the author states that physicians should acquaint themselves with the pathology of a living gastric and duodenal ulcer, as seen at operation, for only by such observation, can the physician realize how protracted and how scrupulous the medical treatment of so grave a lesion must necessarily be. J. F. C.

The Examination of Patients. By Nellis B. Foster, M. D. 253 pp. Illustrated. Philadelphia and London: W. B. Saunders Company. 1923.

This small book is an excellent compendium of the technic of diagnosis. It is quite evident that it is founded upon a good many years of experience in teaching. For this reason it ought to be of great value to the student and also to the practitioner who wishes to refresh and standardize his methods. The methods of ordinary physical diagnosis are briefly but clearly described with adequate discussion of the significance of the various findings and combinations of symptoms. The technic is also given for various semi-surgical procedures such as paracentesis, spinal puncture, Schick test, etc. The illustrations add to the usefulness of the volume. J. L. W.

Intranasal Surgery. By Fred J. Pratt and John A. Pratt. 334 pp. Illustrated. Philadelphia: F. A. Davis Company. 1924. Price, $5.50.

The author states in the preface that the purpose in writing the book is to make the anatomical relations and the whole field of intranasal surgery simple and clear to the student, intern, and general practitioner, as well as for the beginning specialist.

The main criticism of the book is on this very point, namely, its descriptions, particularly anatomical descriptions are too short and vague to be clear. Even to one trained in this field, the anatomical descriptions in this book are apt to be confusing.

The chapter on the septum and the submucous resection of the septum operation is the only really good clear chapter in the book.

There are many good points of the author's own experience and observations which are both interesting and valuable. H. A. F.

Cancer of the Breast. With a study of two hundred and fifty cases in private practice. By L. Duncan Bulkley. 336 pp. Illustrated. Philadelphia: F. A. Davis Co. 1924. Price $3.50.

An extreme example of the process of drawing conclusions by twisting facts to fit a theory. The book is an unconvincing exposition of the author's conception of cancer as a constitutional disease caused by errors of metabolism and curable by dietary and medical measures. The case reports display the usual inadequacy of diagnosis and uncritical, optimistic interpretation of end-results. It will be fortunate if the book does not do positive harm in the hands of lay readers. A. R. K.

The Anatomy of the Nervous System. From the standpoint of development and function. By Stephen W. Ranson. 2nd ed. 421 pp. Illustrated. Philadelphia and London: W. B. Saunders Co. 1924.

Several additions have been made in the revision of this work, notably the blood supply of the brain, and a dozen clinical histories taken as illustrative of lesions of important parts of the nervous system. The value of the latter addition is questionable. It should have been more thoroughly done or not at all. It is not complete enough to serve as a reference source for student or practitioner, and that is its chief excuse for being. The book remains an excellent reference work for the general reader. E. W. T.

Physical Diagnosis. By Richard C. Cabot. 8th ed. 836 pp. Illustrated. New York: William Wood & Company. 1923.

The eighth edition of Physical Diagnosis by Richard C. Cabot remains the standard text-book in physical diagnosis for medical students, and is of great value to the practitioner as well. This edition is made more attractive by the work on electrocardiography by Dr. Paul D. White, and is well supplemented by excellent reproductions of x-ray photographs.

Dr. Cabot has an excellent method for the graphic description of heart murmurs which should be more generally adopted in the teaching of medicine. There are a great many typographical errors which have escaped the eye of the proofreader, but these do not detract materially from the general worth of the text. W. J. K.

Manual of the Diseases of the Eyes. By Charles H. May, M. D. 11th edition, revised. William Wood & Company.

What a splendid little book Doctor May has given to us. It is precisely what the family physician needs, and it is all he needs upon the special subject of diseases of the eye. Every physician who familiarizes himself with the contents of this little book of 400 pages will be able to do all that should be attempted by the family doctor.

Clinical Notes and Suggestions

A METHOD TO FACILITATE THE PASSAGE OF THE STOMACH TUBE

Pass a flat, one-eighth inch wide, two feet long, steel staff, protected on both cut ends with suitable rounded edged non-corrosive material for protective effect into the esophagus.

Take a stomach tube, with openings at the lower end and side, thread the staff through the lower end and side openings, the latter opening and staff thereby being anterior.

This will cause the tip of the tube to point posteriorly, avoiding a possible irritation of the posterior larynx by the tip of the tube. When the tube is well down into the esophagus the staff should be withdrawn.

Should there be suspected or actual narrowing of the entrance of the stomach, a longer staff could be used which would then act as a guide directly into the stomach. The necessary care, usual precautions and other approved measures observed.—Samuel Floersheim, M. D., Los Angeles.

SOUTHERN CALIFORNIA MEDICAL ASSOCIATION

Program of the Seventy-first Regular Semi-Annual Meeting

Friday and Saturday, November 14 and 15, 1924,

Ebell Club, 1719 South Figueroa Street, Los Angeles

Officers—Egerton Crispin, M. D., Los Angeles, President; Rexwald Brown, M. D., Santa Barbara, First Vice-President; Allan L. Bramkamp, M. D., Banning, Second Vice-President; Charles T. Sturgeon, M. D., Los Angeles, Secretary-Treasurer.

Friday—2 p. m.

Call to Order.
Reading of Minutes.
Reports of Committees.
Scientific Program.

The Laboratory Problem of Modern Medicine—Hersel Butka, M. D., Los Angeles.
Discussion—A. H. Zeiler, M. D., Los Angeles; Newton, Evans, M. D., Loma Linda.

Hemorrhagic Diseases of the New-born (lantern slides)—H. M. Coulter, M. D., Pasadena.
Discussion—W. M. Happ, M. D., Los Angeles; Oscar Reiss, M. D., Los Angeles.

Prophylaxis in the More Common Types of Obstetrical Morbidity—N. H. Williams, M. D., Los Angeles.
Discussion—J. M. Slemons, M. D., Los Angeles; P. O. Sundin, M. D., Los Angeles.

Lupus Erythematous Disseminate—Case Report—Fred B. Clarke, M. D., Long Beach; A. W. Warnok, M. D., San Pedro.
Discussion—V. R. Mason, M. D., Los Angeles; Samuel Ayers, M. D., Los Angeles.

Surgical Treament of Tuberculosis Peritonitis — George Patterson, M. D., Los Angeles.
Discussion—Rea Smith, M. D., Los Angeles; Rexwald Brown, M. D., Santa Barbara.

Friday—8 p. m.

Sacral Anaesthesia (lantern slides) — Albert J. Scholl, M. D., Rochester, Minnesota.

Blood and Tissue Changes in Anaphylactoid Reactions (lantern slides) — P. J. Hanzlik, M. D., Professor of Pharmacology, Stanford University, San Francisco.

Saturday—9 a. m.

The Non-Operative Treatment of Poliomyelitis Paralysis—A. Gottlieb, M. D., Los Angeles.
Discussion — John C. Wilson, M. D., Los Angeles; John Dunlop, M. D., Los Angeles.

The Low Cervical Caesarian Section (lantern slides)—John Vruwink, M. D., Los Angeles.
Discussion—W. C. McKee, M. D., Los Angeles; John C. Irwin, M. D., Los Angeles.

Pyloric Stenosis and Pylorospasm in Children (lantern slides)—A. J. Scott, M. D., Los Angeles.
Discussion—Guy Cochran, M. D., Los Angeles; C. C. Mason, M. D., Long Beach.

The Use of Quinidine in Cardiac Arrythmias (lantern slides)—R. H. Kennicott, M. D., Los Angeles; A. S. Granger, M. D., Los Angeles.

Diagnosis of Tumors of the Breast—Joseph K. Swindt, M. D., Los Angeles.
Discussion — A. S. Lobingier, M. D., Los Angeles; Henry H. Sherk, M. D., Pasadena.

Saturday—2 p. m.

Elections of Officers.
Committee Reports.

Radiotherapy of Bone Tuberculosis—Case Report (lantern slides)—H. H. Ullmann, M. D., Santa Barbara.
Discussion — William B. Bowman, M. D., Los Angeles; E. N. McKee, M. D., Los Angeles.

The Operative Treatment of Fractures (lantern slides)—W. L. Brown, M. D., and C. P. Brown, M. D., El Paso, Texas.
Discussion—Charles D. Lockwood, M. D., Pasadena; C. L. Lowman, M. D., Los Angeles.

Benzole in the Treatment of Leukaemia (lantern slides)—A. W. Wessels, M. D., Los Angeles.
Discussion—James Churchill, M. D., San Diego; R. L. Crum, M. D., Los Angeles.

Injuries to the Ureters in the Course of Abdominal Operations—E. C. Moore, M. D., Los Angeles.
Discussion—Arthur B. Cecil, M. D., Los Angeles; Roland E. Skeel, M. D., Los Angeles.

A Study of Persistent Thymus Gland (lantern slides)—Guy L. Bliss, M. D., Long Beach.
Discussion—H. K. Berkely, M. D., Los Angeles; R. G. Taylor, M. D, Los Angeles.

Saturday—8 p. m.

Problems of Internal Secretion—John J. Abel, M. D., Professor of Pharmacology, Johns Hopkins University Medical School and former Professor of Pharmacology and Therapeutics, University of Michigan.

All papers limited to 15 and 20 minutes, and all discussions to 5 minutes.

The Sheppard-Towner Act — The publicity department for the Children's Bureau of the United States Department of Labor announces that $1,688,047.12 has been expended by federal and state governments in the carrying out of the Sheppard-Towner Act, or the so-called federal Maternity and Infancy Act, during the first fifteen months following its passage. The federal grants to the states have totaled $1,046,523.56, and the state appropriations $641,523.56. Forty-three states co-operated in 1922, and forty-one states in 1923. The number for 1924 includes forty. The states that do not co-operate are Kansas, Illinois, Louisiana, Vermont, Maine, Massachusetts, Connecticut, and Rhode Island, but Louisiana is to come in during 1925. Since this bill was strongly opposed by the medical profession before it was passed by Congress and endorsed by President Harding, it is in order to inquire as to just what has been accomplished through the expenditure of this large amount of money. Perhaps it is well to quote exactly what the publicity department for the bureau has to say; the claim is made that this Act has demonstrated its value since it has: "1. Stimulated state activities in maternal and infant hygiene. 2. Maintained the principle of local initiative and responsibility. 3. Improved the quality of the work being done for mothers and babies by disseminating through a central source—the federal government—the results of scientific research and methods of work which have been found to operate successfully. 4. Increased state appropriations with the passage of the Act. From the appropriation for the fiscal year 1922, fifteen states were able to accept only the $5000 unmatched funds. Six states were able to accept only the $5000 unmatched from the federal appropriation for the fiscal year 1923. All of the states co-operating under the Act either have already accepted more than the $5000 unmatched allotment from the 1924 federal appropriation, or will be able to do so. Moreover, since the Maternity and Infancy Act became effective, thirty-three states accepting it have made definite increases in their own appropriations for the welfare of mothers and babies." Actually, the first three items just quoted mean nothing. They represent no scientific evaluation of results, but merely the general statement that more attention is being paid to the matter without evidence of paternalism. How is it demonstrated that this Act, which is essentially paternalistic, has "maintained the principle of local initiative and responsibility"? The fourth claim made means even less from the standpoint of benefit, since one of the chief charges against this Act was that it forced the states to appropriate money in order that they might receive an equal share of federal funds. It is strange, then, that the claim should be made that one of the benefits of the Act has been that the states have been forced to appropriate money which, by the very nature of things, they could hardly avoid appropriating. If the proponents of the Sheppard-Towner Act would justify the bill, they must submit exact figures indicating that the maternal and infant death rates have been appreciably lowered in those states which have co-operated with the federal government, and that the rates are much lower than those obtaining before this meddlesome legislation became effective, and lower also than those of the states which have not co-operated, and which may serve in this case as a control. Furthermore, recognition should be made of the tendency toward lowering of maternal and infant mortality rates in accordance with the general lowering of all mortality rates following increased application of our knowledge of sanitation and hygiene.—Journal A. M. A., September 13, 1924.

BOARD OF MEDICAL EXAMINERS

Juan De Dios Garay Convicted at Last—The following abstract of a report by Special Agent Albert Carter, forwarded to us by Doctor C. B. Pinkham, secretary of the Board of Medical Examiners, is interesting and instructive:

"It is with considerable satisfaction that we can report that, with the help of the Postoffice Department and United States Court, we have at last eliminated entirely from this field of activity one of the worst medical fakirs with which we have ever had to contend.

"After a trial lasting three or four days in the United States District Court of the Southern District of California, Juan de Dios Garay, one of the most notorious and clever swindlers on the Pacific Coast, has been put out of the business. He was today convicted by a jury on all six counts of an indictment charging him with using the United States mails in a scheme to defraud, and was sentenced by Judge Bledsoe to pay a fine of $1,000 on each count ($6,000) and to serve five years in the federal prison on McNeil's Island on each count, sentence to run concurrently.

"For years we have had trouble with this individual. He has been arrested by this office four different times since 1919, and on one occasion paid a fine of $100. He has continually violated the Medical Practice Act, but owing to the fact that he mixed religion, mental treatments, superstition, and the sale of a medicine in bottles, it became practically impossible to convict him in the police court. Upon one occasion we subpoenaed ten of his Mexican patients as witnesses, but they were superstitious and feared his occult powers and only one appeared, and she was willing to swear that she had never seen Garay before.

"On going through Garay's place of business with a search warrant, we found many thousands of letters from all over the United States, from Mexico, Cuba, Guatemala, Peru, Brazil, and other foreign countries. Many of these letters had money-orders attached, in payment for treatment for various diseases or his various schemes, such as "Treatment for success in business"; "To bring back lost husband, wife, or sweetheart"; "To be successful in gambling"; "Power to read the deepest thoughts of any person"; "Power to make yourself visible or invisible"; "Secret to find any treasure; "To communicate with any being beyond the grave," etc., etc.

"His schemes were so many and varied that he kept a complete file of customers' letters with carbon copies of his replies to each one. To those who wanted to be cured of some disease he sent from one to twelve bottles of his "Aztec Treatment," which is composed of walnut bark, sarsaparilla, rose castile, water and sugar. To win the love of a sweetheart, he sent a white powder composed of fine steel filings and some ingredient to make them burn, with instructions to divide into equal parts and burn one each night between 9 and 12 o'clock.

"Not content with his various schemes of obtaining money through occultism and superstition, Garay had some beautiful diplomas of the 'Instituto de Cienclas Occultas—A School of Magician,' printed, and for one of these, sold to Huagleto C. Mendoza, he obtained the sum of $85. This diploma certified to the proficiency of Mendoza in spiritism, somnambulism, magnetism, cartomancia, chiromancy, and astrology, but when asked by Judge Bledsoe what occultism is, Mendoza said he didn't know.

"After many of Garay's dupes had appealed to our office and to the City Prosecutor and District Attorney's office without being able to obtain much results, we furnished the Postoffice Inspector, Mr. Sharon, with a list of names of persons who had been swindled by Garay through the United States mails on various schemes. The United States grand jury, acting upon this information, indicted Garay, and witnesses were brought from different parts of the state."

The fact is, as all who have had experience in business of any kind know, that it is the individual who does things—not a board or a commission. There is no commission anywhere, there is no board anywhere, that does things affirmatively unless it is dominated by one man, and the only benefit from the other members of that body is in their advisory capacity.—Frank O. Lowden.

STIMULANTS, DEPRESSANTS, HUMOR

Permit me to congratulate you and your staff on the excellent arrangement of the material in the California and Western Medicine. The arrangement of articles and the quality of reading matter presented stand out conspicuously in medical journal composition. As I look over the Journal (October issue) this morning its very high quality prompts me to send you this note of appreciation and congratulation.—E. C., Los Angeles.

I am returning Dr. Blank's paper on backache with a brief discussion which I trust will not prove too critical. It's a subject in which I am particularly interested, and I am glad to have had the opportunity to discuss the paper.—L. L., San Francisco.

Doctor—Well, Thomas, how are you?
Thomas—I be better than I was, sir, but I hain't as well as I was before I was as bad as I be now.—Exchange.

Enclosed you will find Dr. ————'s paper, together with a brief discussion. I wish to thank you for this opportunity and shall be glad to render service along this line within my range as a general practitioner.—E. B., Dinuba.

Fundamental educational medical facts should be taught to the public if they are to think logically and reach logical conclusions. We are fortunate in having an editor who has the ability, the knowledge and the courage to write these splendid editorials. While they do the Medical Society doctors a great deal of good, they should be sent also to the public. These are vital facts that the public should know. We read enough against the subject in almost any popular magazine we care to pick up. These editorials are indeed tragically true.—C. L. C., Redlands.

I wish to thank you and to express my appreciation for your reference of Dr. Blank's paper to me for discussion. I returned only last night from the East, so I am unfortunately a day late in returning to you the manuscript and the discussion; however, that is not bad for a doctor. —G. W. J., Santa Barbara.

Business Man to Colored Janitor—Sambo, if you'll take this prescription down to the drug store and get a quart of Scotch, I'll give you a drink. . . . What! Aren't you gone yet?
Sambo—Boss, I'se back!

I wish to thank you for allowing me a place on the discussion of Dr. Blank's very valuable paper. If my little contribution meets with your approval I will be glad to come again some time.—E. M. McK., Los Angeles.

Dear Editor—Hope you haven't overlooked Gests' article in the October Atlantic Monthly. I think you will enjoy it, especially the paragraph which has to do with the "professional uplifter."—H. H. J., San Francisco.

We greatly appreciate your recent letter and are confident that our advertising in the California and Western Medicine will bring us the results which we naturally anticipate.—Hoffmann-La Roche Chemical Works.

Changes in the Placenta Due to Syphilis—"Obstetricians and syphilologists are unanimous in admitting that syphilis produces certain changes in the placenta which are characteristic," says Joseph S. Lawrence (Venereal Disease Information, U. S. P. H. S.). "The changes apparent on inspection are: 1. Size: The normal placenta equals about one-sixth the weight of the fetus, while a syphilitic placenta may equal one-fourth, one-third, or even one-half its weight. 2. Thickness: The thickness of a normal placenta is about one inch, but may vary inversely to its area; the syphilitic placenta will be noticeable by its abnormal thickness. 3. Color: The syphilitic placenta has a dull gray appearance. 4. Consistency: Soft and friable. 5. Blood vessels: Enlarged, thickened vessels over the surface of the placenta and cord. The changes are even more characteristic when examined with the microscope. The thickness, it will be seen, is due to enlargement of the villi, and the gray color to the almost total absence of blood vessels from the villi. The destruction of the blood vessels may account partly for the death of the fetus. All of the changes are most marked in the placentas of stillbirths. The presence in the placenta of any of the changes described should suggest to the physician the possibility of congenital syphilis, but their absence must not be taken as proof that syphilis cannot be present. The relation of time of infection to time of impregnation will have some bearing upon the extent of the change. If infection occurs when gestation is well advanced the placenta may not be infected, but if impregnation occurs during the florid stage or in the tertiary stage the placenta is likely to be extensively involved.

THE ECONOMIC PROBLEMS OF HEALTH

In discussing this subject editorially BETTER HEALTH says: Citizens of all countries are considering as never before the economics of service and particularly of public service. The trend of opinion in the more general fields of industry are of particular interest to physicians, because the solutions worked out for power companies, transportation agencies and the larger industries will soon be reflected in and applied to health problems.

That group of people who appear to believe in and work for Government ownership and operation of public utilities are always active, and never more so than now. The broad field of health has been, and is, their particular battleground. Wherever they have succeeded in socializing the agencies of health, these agencies have a tendency to depreciate in quality and effectiveness and increase in quantity and costs. The movement has never been approved by physicians. It probably always will be opposed, except by the comparatively few who by reason of salary or other narrow interest join with the Socialists. It is interesting to observe the strange influence which a small salary and a Government job often exerts in transforming the views of the employe. In all phases of political socialism to subsidize, leaders in this movement have utilized it as much as possible in their attempts to socialize—governmentize—health and its agents and agencies. So far, with strikingly few exceptions, they have been unable anywhere to secure the services and endorsement of more than a few men highly respected by their colleagues.

Here on the rim of Western civilization the problem has been before the people and rejected by them in one candid campaign, and phases of it have been before them frequently and will be again, usually in deceptive disguises.

So it behooves physicians and other intelligent citizens genuinely interested in having the best possible health machinery operated by persons educated for the purpose to remember that "State medicine," and "socialized" medicine and public health by any name is part of a larger problem of State control and socialization which should have their consideration, by whatever label and in whatever field it comes first.

It may eventually prove valuable to civilization that the Socialists picked health as the most popular field in which to carry on their various experiments. As a strategic move it seemed a particularly wise choice because of the lack of economic organization of the field, the multiplicity of theories regarding methods of service inherent in man's understanding of man, and the difficulty in measuring and interpreting end results, and the certainty of appeal to those who are blown around by every fresh breeze. However, in spite of such apparently favorable opportunities, experience has developed methods of computing results and these have left the dream of Government management of health agencies on the defensive. During the last few years their spellbinders no longer consider it wise to refer to what they have done in European countries, or their achievements during the war, and when their omissions are called to their attention they flounder in confused explanations.

Lately it appears that one strong socio-political group with a lot of publicity pull have discovered some socialized health countries in the Antipodes, and the propaganda they are releasing sounds curious to students who have spent much time in those countries.

Unfortunately, the great majority of thinking people who are unalterably opposed to Socialism, expressed in Government management or otherwise, have not heretofore found common ground in a constructive effort. Two comparatively recent movements in this direction are attracting wide attention and both are growing fast. They are "customer ownership" and "employe ownership." Theoretically, Government ownership is "customer ownership" and "employe ownership" raised to the nth degree. The best proof that this is not a fact practically is found in the bitter and even violent opposition of all Socialists and bureaucrats to these movements.

Both these movements are much more extensively developed in California and in much wider fields than is generally realized. Transportation agencies, power companies, department stores, hotels, etc., are proceeding along one or both of these lines. Hospitals and health agencies are moving in the same direction. The majority of the hospital and other expensive health agency movements now active in California embody these principles. This is without understanding or agreement and appears to be the result of the unconscious molding of men's minds in principles that when sound lead to permanent progress.

The Pathologist of 1940—Under this title, William C. MacCarty says (Jr. of Lab. and Clin. Med.): "The dividing of our investigative ways was necessary, like the early diverse paths of exploration of America. Some approached the West by a northern route, some the southern route, and others by a middle route; but today we go in all directions and meet at any point. And so it has been in medicine, the trails, especially in our generation, have been parallel, sometimes divergent and sometimes convergent; they have frequently crossed each other. This last condition I believe we are in now; our trails of scientific progress are crossing each other; we are unnecessarily retracing each other's steps. It is time, it seems to me, to form trunk lines and eliminate many valueless cross lines. This we see in our attempts at group medicine and hospital standardization. This is all very good, but what have we done and what are we doing? We are developing physical examiners of patients, chest experts, rectal experts, nose and throat experts, gynecologic experts, surgical operators, radio-therapists, skin specialists, kidney specialists, bladder specialists, head specialists—in fact, specialists for every anatomical region and organ of the body. To these we have added laboratory specialists for blood, urine, feces, and other body fluids and excretions. Even the business and social service sides of our professional work have been specialized. We are all specialists, but where are the great correlators and generalizers? What is the basis of correlation of facts about disease? These are questions, the answers to which will point the way we are going as a profession. *In my opinion there are only two answers: we, as a lot of specialists, are going to be managed by executives who are business men primarily; or w will develop individuals who, by correct and long training, know how to put all of the facts, found by experts, together and read the diagnosis, cause, prevention, palliation, and cure of disease with its social, economic and humanitarian significance. This individual will be the pathologist of 1940.* He will not be a morbid anatomist alone, serologist alone, symptomologist alone, roentgenologist alone, immunologist alone, surgeon alone, therapist alone, or any other kind of narrow specialist alone. He will be one who has had the broadest experience with all. He cannot be a youth, although his mind may be youthful. He cannot be made in a few years; he must have spent a long apprenticeship; he must have the needs of the whole patient at heart."

Examination for Nurses Desiring Public Health Nursing Certificates—This examination has been set for Saturday, December 13, 1924, at 9 a. m., and will be held in the offices of the State Board of Health, 117 State building, San Francisco, and 823 Pacific-Finance building, Los Angeles.

Application blanks may be obtained at the offices of the Board at Sacramento, Los Angeles and San Francisco, and should be filed not later than December 1, 1924.

It has been estimated that with the private agencies, hospitals, public health appropriations, etc., included, no less than $60,000,000 or about $10 per capita is expended annually in the city of New York for public health work.

A part of the "American" installation at the Union Memorial Hospital

The New Union Memorial Hospital, Baltimore, Md.

"No Question as to the Advantages"

The Union Memorial Hospital, Baltimore, Md., upon the completion of a new building installed a laundry using "American" equipment.

Recently the management of the Union Memorial Hospital expressed their opinion of the results obtained with the equipment in use.

> "We have been asked to express our opinion as to the advantages derived from the operation of our laundry plant. From the standpoint of economy and convenience, we think there is no question as to the advantages."

The Union Memorial Hospital is but one of the many representative hospitals which has secured such satisfactory results from operating its own laundry with "American" equipment. A postcard will bring full information concerning this and other recent installations.

The American Laundry Machinery Company

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San Francisco Los Angeles Seattle

Truth—

Believe not each accusing tongue,
As most weak people do;
But still believe that story wrong
Which ought not to be true.

—Sheridan.

How Many Drug Addicts?—"The number of cases of drug addiction in the United States has been seriously estimated from 100,000 to 1,000,000," says American Medicine editorially. "Most of the figures have been arrived at on the basis of insufficient data, and have been calculated by the use of intangible allegations. . . .

"All evidence tends to show that a maximum estimate for the number of narcotic addicts in the United States at the present time would be 150,000. The estimates that are based upon actual counts, on the available supplies of narcotics and on conditions reported by physicians' interviews suggest that approximately 110,000 is more likely to be the correct number.

"Despite widespread hysteria and the emotional and self-seeking propaganda put forth from various quarters claiming for obvious reasons an enormous increase of narcotic addiction, it is apparent that the number of addicts has decreased steadily since the passage of the Harrison anti-narcotic act. . . .

"Drug addiction is apparently becoming a much less serious problem than it was. Indeed, there is evidence that the trend of narcotic addiction is such that the time is not far distant when it will have been reduced to insignificant proportions. There will never be a time when no addicts can be found."

Jealousy may indeed be considered a variety of ill health; but whether it be infirmity or disease, inheritance or acquisition, it is the most potent joy killer known to man.—Joseph Collins (The Bookman).

CALIFORNIA
AND
WESTERN MEDICINE

OWNED AND PUBLISHED BY THE CALIFORNIA MEDICAL ASSOCIATION

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Contributors to This Issue:

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FOUR DOLLARS A YEAR, SINGLE COPIES THIRTY-FIVE CENTS

(Continuing the California State Journal of Medicine)

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CALIFORNIA
AND
WESTERN MEDICINE

VOL. XXII DECEMBER, 1924 No. 12

SPECIAL ARTICLE

DIAGNOSIS AND TREATMENT OF GASTRIC AND DUODENAL ULCER

By WILLIAM FITCH CHENEY, M. D., San Francisco

If such were needed, what better illustration of the value of thorough searching for evidence and the intelligent weighing of all the evidence in arriving at a diagnosis could be given than is found in Doctor Cheney's discussion of gastric and duodenal ulcer?

By the same token, what better illustration could be desired of the dangers of diagnosis based upon incomplete evidence?

It isn't often in medical literature that we have the pleasure of reading such a succinct, clear exposition of what we do and do not know about a common ailment.

Is it likely that many persons are being treated for ulcer where ulcer is not and that many people with ulcer are being treated for something else because of lack of thoroughness in the work of some of us? I wonder.—EDITOR.

THERE is really no diagnostic history of ulcer, as was once believed and taught.

Experience forces the conclusion upon us that physical examination affords no positive sign of ulcer, while negative signs neither indicate nor exclude it.

All expected stomach contents findings may be missing and the fasting contents normal, even though ulcer exists.

The absence of blood from the stools does not disprove a diagnosis of gastric ulcer; and its presence is of value only when considered in connection with all the other symptoms and signs.

Blood Wassermann test should never be omitted from any examination, no matter of what symptoms the patient complains.

The utmost importance is attached to radiological investigation of the gastro-intestinal tract, and no conclusion is justifiable without the evidence it supplies.

In recent years we have learned to suspect infection as a cause of peptic ulcer. It seems possible, therefore, that when an ulcer relapses after careful routine treatment, or a new one develops, this may be due to reinfection.

ULCERS of stomach and duodenum do not form so large a group as we used to think; because more accurate methods of investigation have gradually substituted demonstration for inference, and so have greatly limited the cases properly designated ulcer. The more carefully we make our diagnosis, the more valuable become our conclusions about methods of treatment; for thus we eliminate conditions, on the one hand, less serious than ulcer, that would have subsided gradually even without routine therapy; and conditions, on the other hand, that no sort of dietetic and medicinal measures could possibly cure. Hence, the importance of careful study before decision is reached. The means at our disposal for diagnosis are the usual ones of history, physical examination, laboratory, and x-ray examinations.

THE PATIENT'S HISTORY AND WHAT IT TELLS US

When a patient comes for advice about digestive disturbance, it is highly important to keep an unprejudiced mind. The story should be accepted as it is related, and no attempt made to shape it to fit some preconceived idea. *There is really no diagnostic history of ulcer, as was once believed and taught.* Certain features were formerly considered characteristic, such as long duration, remissions or intermissions in the course, the relation of the symptoms to food, with hunger pain and night attacks, the general complaint of sour stomach, the relief of pain by soda or by vomiting, and the occasional vomiting of blood or its passage by the bowel. But now we recognize that every one of these features may occur in combination when no ulcer is present, and not even any gastric disease, for most of them arise from gastric hypersecretion. Not all ulcers, however, cause hypersecretion, while many other diseases besides ulcer may produce it. In other words, a typical history does not necessarily mean ulcer, and ulcer may be present without a typical history. The knowledge needed for judicial determination of what the gastric disturbance really means, therefore, comes from the patient's complete and detailed statement of facts about every part of his body; and not simply from that about his gastric distress.

Physical examination, likewise, gives little reliable information about the presence of ulcer of the stomach. All the evidence usually found is subjective; that is, tenderness in the epigastrium or the right

or left hypochondrium. But this sign depends, in part at least, upon the patient's sensitivenss to pain, so that neither its presence nor its absence is conclusive. There is ordinarily no objective sign of ulcer, nothing that can be seen or palpated. For this reason negative evidence, the entire absence of any abnormality on physical examination, was formerly looked upon as diagnostic of ulcer, when the history had created an impression that ulcer existed; but this conclusion is unreliable, because several other intra-abdominal conditions may likewise present no physical signs, and yet give similar history. *Experience forces the conclusion upon us that physical examination affords no positive sign of ulcer, while negative signs neither indicate nor exclude it.* What we need to remember is, that the collection of data by physical examination must include the entire body, in a systematic and unprejudiced way; for in some remote finding, such as the reactions of the pupils or the condition of the prostate gland, may be discovered the clue that explains the whole digestive disturbance, no matter what the abdomen shows or does not show.

LABORATORY EXAMINATIONS AND THEIR VALUE

Stomach Contents—Naturally the first concern is about stomach contents; and the fasting contents in ulcer usually present several characteristic features: (a) The amount is frequently increased above 50 cc., due mainly to interdigestive hypersecretion, but partly to pylorospasm; (b) the total acidity and free HCl are frequently high, so that they equal or exceed the values found during the digestive stage; (c) blood is occasionally found as visible streaks or brownish shreds, or more often is discovered by the benzidine test and by red corpuscles in smears of the sediment. *All the expected findings, however, may be missing and the fasting contents normal, even though ulcer exists.* Fractional gastric analysis usually shows hypersecretion, rising gradually with each extraction, so that the total acidity and free HCl are decidedly above the normal throughout, and are higher at the end of two hours than at any previous time. This is the characteristic finding in ulcer, but it is not essential to diagnosis. Ulcer may be present, though fractional gastric analysis shows a normal secretory curve; and so many extra-gastric conditions may cause digestive, and even inter-digestive, hypersecretion that its presence alone never justifies the inferences that ulcer exists. ..

Intestinal Waste—All ulcers do not bleed, so that the stools do not always show visible or occult blood even in the presence of ulcer; and when such evidence is found, it does not necessarily mean ulcer, for there are many other possible causes for its presence. *The absence of blood from the stools, therefore, does not disprove a diagnosis of gastric ulcer; and its presence is of value only when considered in connection with all the other symptoms and signs.* The chief value of stool examination in chronic digestive disturbances is not to discover the presence or absence of occult blood; but to find whether it contains ova or cysts of parasites that may be the real cause of the symptoms the patient describes.

Urine—No proof for or against gastric ulcer can be obtained by urinalysis; but this investigation tells much about other conditions that may simulate ulcer, such as diabetes, chronic nephritis, and renal or ureteral stone. In diabetes, gastric indigestion with pain is a not uncommon manifestation; in chronic nephritis, digestive disturbances frequently appear as a consequence of uremia; with renal or ureteral stone, attacks of pain in the right or left upper quadrant, with vomiting and reflex disturbances of gastric secretion, offer at times a perplexing resemblance to ulcer.

Blood—Unless large or frequent small hemorrhages have been caused by an ulcer, the routine blood count gives no information; and even so it shows only a secondary anemia without identifying the cause. More important, as with the urinalysis, is the possible discovery by blood examination of other conditions that may underlie the symptoms suggesting ulcer; such as pernicious anemia, leukemia, or Banti's disease.

Of even greater importance is the blood Wassermann reaction. Ulcer of stomach or duodenum may really be luetic, from a broken down gumma; or luetic conditions of the liver or at the portal fissure may cause symptoms closely resembling those of ulcer; so that the real nature of the pathology present and the treatment consequently indicated become clear only after the Wassermann test. *It should never be omitted from any examination, no matter of what symptoms the patient complains.*

Spinal Fluid—In certain dubious cases this alone can solve the diagnostic problem. It is not necessary in every case, but particularly where the finding of an abnormality in a pupillary or patellar or Achilles reflex, with failure to discover by other methods of diagnosis any explanation for the chronic digestive disturbance, arouses the suspicion of possible disease of the spinal cord. Increased cell count in the spinal fluid, increased albumen content, positive Wassermann reaction in all dilutions, even when blood Wassermann is negative, combine to make the situation clear. Not infrequently in such conditions recurrent spells of vomiting and pain are wrongly interpreted to mean ulcer until routine treatment without benefit ultimately leads to further investigation and thus to an understanding of the real pathology present.

X-ray Examination—The utmost importance attaches to radiological investigation of the gastro-intestinal tract, and no conclusion is justifiable without the evidence it supplies. It gives direct testimony about the outline of the stomach and duodenal cap, the rate of peristalsis, and the emptying time. Thus it substitutes demonstration for inference and either confirms or disproves the suspicion aroused by other methods of examination. And yet it must be remembered that x-ray reports are not infallible. It is possible for an ulcer to be overlooked when present, and to be reported present when really absent. Therefore, while in general the x-ray findings are to be given great weight in diagnosis, they cannot be accepted as final proof unless they are considered in connection with all the other facts elicited by history, physical examination, and other laboratory investigations.

To sum up the data that, taken together, make a fairly certain diagnosis of chronic gastric or duodenal ulcer, there should be, *first* a history of long-

standing digestive disturbance, lasting over a period from one year to twenty, with periods of exacerbation and other periods of remission or absence of all symptoms; with characteristic features, such as the onset one to four hours after meals of burning distress, belching, water-brash, nausea and vomiting, at times hematemesis; the distress all relieved by taking food and comfort persisting until a new cycle begins at a variable period afterwards; the tendency of such attacks to occur particularly at night, rousing the patient from sleep; and the common story of the habitual use of soda. *Second,* after a thorough and systematic physical examination, involving all parts of the body, there should be found no sign of any disease except possibly tenderness high up in the abdomen, in epigastrium or either hypochondrium. *Third,* after routine laboratory examinations, stomach contents ought to show digestive and inter-digestive hypersecretion; feces should be negative except for the possible presence of occult blood; urine should be normal; blood should show no abnormality except possibly a moderate secondary anemia; and the blood Wassermann should be negative. *Fourth,* the x-ray examination ought to reveal a filling defect in the stomach or a deformed duodenal cap, with abnormal gastric or duodenal peristalsis and possibly delay at the pylorus.

If all the foregoing symptoms and signs are present, it is easy to diagnose gastric or duodenal ulcer. But it must be remembered that the so-called "ulcer history" is only a hypersecretion history, and may be produced by many other conditions besides ulcer; that physical examination aids in eliminating these other possible causes of hypersecretion, but that ulcer itself and several other diseases whose history resembles it may give no objective signs; that gastric analysis, even when it demonstrates hypersecretion, does not prove that ulcer produces it, and it may delude by showing no change from normal, even when ulcer exists; and finally that, while the recognition of ulcer rests largely on the x-ray findings, it must never rest on these alone.

DIFFERENTIAL DIAGNOSIS

When a patient complains of chronic disorder of the stomach, the question that naturally presents itself is "why?" Ulcer is only one possibility; and the symptoms it produces vary so much in degree, as well as in character, that we must give up the idea of a typical diagnostic history. Admitting this we have next to ask ourselves what else can the symptoms mean? Other conditions that must be investigated in searching for an answer to the problem can be usefully grouped as follows:

Other Intra-gastric Diseases — The chance that the patient's complaints are really due to cancer of the stomach must be kept prominently in mind; but the one definite proof for or against this is the x-ray film, no matter what may be shown by the history, physical examination and gastric analysis. The only other organic disease of the stomach occurring with any frequency is chronic gastritis; but how frequent it really is no one can say. Probably we diagnose it too often. The essentials to its recognition are abundant mucus in fasting stomach contents, with decreased gastric secretion and negative x-ray films. But be wary about accepting this diagnosis. Early cancer sometimes lurks behind these findings, and repeated observations should be made before decision is reached.

Extra-gastric, but Intra-abdominal Pathology— Under this heading fall chronic cholecystitis and cholelithiasis, chronic appendicitis, chronic colitis, neoplasms of the intestine, hernia, tuberculous peritonitis, cirrhosis of the liver; for all of these frequently give rise to chronic disturbance of the stomach. Details for the differentiation of each of these from ulcer cannot be given here; but if history has been complete, if physical examination has been thorough, if tests of stomach contents and of stool have been carefully made, and finally if gastro-intestinal x-ray films and fluoroscopy have been employed as aids, there should be no error in the conclusion. Failure to recognize the truth usually is the result of incomplete observation.

Intestinal Parasites — A tape-worm in the intestine can cause symptoms closely simulating those of gastric ulcer, with gastric hypersecretion; but repeated search of the stool for segments or ova usually reveals the presence of the parasite. The amoeba dysenteriae, likewise, may give rise to chronic digestive disturbances calling attention to the stomach more than to the bowel; but again the discovery of cysts in the stool gives the clue to correct diagnosis. Whether the flagellates, such as giardia, should be considered an adequate explanation for chronic digestive ailments is dubious. But it is justifiable to employ the therapeutic test; and if after the proper therapy symptoms persist, in spite of the disappearance of the flagellates from the stools, all will agree that other causes must be sought.

Genito-urinary Disease — Mention has already been made of the value of routine urinalysis in every case. This will help to detect renal inflammation or calculus or neoplasm or tuberculosis, no matter how the history may delude. Only when urinalysis is omitted could these conditions fail to suggest themselves for consideration in diagnosis. One of the most frequently neglected parts of a physical examination is digital exploration by rectum. Thus, not only a neoplasm of that organ occasionally escapes recognition, but also a tender prostate or seminal vesicle that reflexly causes gastric hypersecretion with all its attendant manifestations. Cystoscopy, with ureteral catheterization, pyelograms and x-ray films of kidneys may explain long-standing digestive ailments never explained before by any other means of diagnosis; but routine urinalysis gives the first clue that prompts further investigation by these methods.

Chronic Pelvic Disease—In women, pain in the upper right or left abdominal quadrant, with reflex gastric hypersecretion and consequent symptoms of sour stomach, not infrequently are produced by chronic pelvic disease. Cystic degeneration of an ovary, chronic salpingitis, chronic infection of cervix secondary to laceration, chronic disturbance of uterine circulation from loss of perineal support, may thus cause disturbances in the stomach far removed from the actual site of the pathology that induces them. The reflex indigestion of early pregnancy may also assume the type we are wont to as-

sume as suggesting ulcer. Thus, pelvic examination becomes as important a part of the investigation as any other; and if this part is overlooked, erroneous conclusions are likely to result.

Other less frequent explanations for ulcer symptoms are gastric crises of tabes dorsalis, to which reference has already been made in the remarks about spinal fluid examination; diabetes as a possible source of the gastric disturbance will never be missed if urinalysis is done as a routine; pernicious anemia or leukemia will, in the same way, be revealed if blood counts are made and blood smears examined in every case; occasionally pulmonary tuberculosis makes its onset with disturbance of digestion, and, as Osler wrote long age, "the early manifestations may be great irritability of the stomach, with vomiting or a type of acid dyspepsia with eructations." If careful physical examination is made of the lungs, supplemented by an x-ray plate of the chest, this possible source of error will be eliminated.

TREATMENT AND WHAT WE MAY EXPECT FROM IT

Only exceptionally should this be surgical; and the exceptions that demand operation are not many. First among these come the acute complications of ulcer: perforation or serious hemorrhage. Perforation of the stomach's wall, with escape of its contents into the peritoneal cavity, must be met by surgical repair of the damage done, as soon as possible after the accident occurs. Hemorrhage of consequence, especially if repeated, likewise calls for direct control of the bleeding vessel without delay. My own experience has convinced me that to persist in medical treatment under such circumstances is only to invite disaster; while a preliminary transfusion will usually make operation justifiable, even when blood loss has been extreme. Second, persistent pyloric obstruction, when revealed not only by history and physical signs, but also by x-ray plates, is a mechanical difficulty and requires mechanical methods such as gastro-enterostomy for its relief. Third, the site and size of the ulcer influence the decision about surgery. A situation on the lesser curvature, and a large defect shown there by x-ray plates, means usually that no healing can be expected by medical treatment, particularly in the saddle ulcer with hour-glass deformity. Fourth, when symptoms arise suggesting that a chronic ulcer has changed its character, particularly when loss of weight and color and strength have recently supervened, exploratory operation is justified on the suspicion that malignant degeneration has occurred. Fifth, in any case where prolonged medical treatment has failed to relieve, or where frequent relapses occur after apparent cure, surgery should be offered the patient; though with the understanding that cure is not certain even then. What method the surgeon shall employ is a matter for his judgment. Whether to excise or to cauterize the ulcer; to do a gastro-enterostomy alone or with closure of the pylorus; or a pyloroplasty; or a gastrectomy in case of suspected malignant degeneration—all these are problems for the surgeon, which his training and experience must solve.

The ordinary routine treatment of ulcer is dietetic and medicinal. The average patient responds well to a simple plan. My own method, for a number of years past, has been to advise the following diet, without detaining the patient in bed or even at home: "7 a. m.—Two soft-boiled or poached eggs; thoroughly toasted bread or zwieback or toasted soda crackers, with butter; a glass of milk, or a cup of cocoa made with milk and cream. 10 a. m.—A glass of warm milk (about a half-pint). 1 p. m.—Beef, mutton or chicken, picked into shreds while raw or chopped fine, then made into a meat ball and cooked rare; toast, zwieback or crackers with butter; a glass of milk. 4 p. m.—A half-pint of warm milk. 7 p. m.—A bowlful of well-cooked rice, with butter or cream and sugar; or shredded wheat biscuit, toasted crisp, with butter or cream; or toasted bread or zwieback or crackers; with any one of these, a glass of milk."

With this diet, one tablespoonful of olive oil is advised three times a day, just before the three main meals; and one or two hours after the three main meals, one level teaspoonful of a powder consisting of bicarbonate of sodium two parts, with magnesium oxide and bismuth subcarbonate of each one part. This powder not only neutralizes acidity, but regulates the bowels. If they are constipated, the heavy oxide of magnesium may be substituted for the ordinary form; or if they are too loose, or become so on this medication, then the dose should be decreased or a larger proportion of bismuth substituted. By shifting the amounts of each of these ingredients or by varying the dose, bowel movements can be controlled, as a rule, without the use of other drugs.

After a week or two on this plan, the average case is usually much improved. If it is, then a second and more liberal diet should be substituted, as in the following list: "May eat—Eggs, soft-boiled, poached or scrambled lightly; tender beef, mutton or chicken, chewed thoroughly; sweetbreads or brains; any kind of fish, cooked as desired, including oysters cooked in any way except fried; cocoa made with milk and cream; milk as much as desired, with cream; no vegetables, except baked or mashed potatoes, unless prepared as a puree; soups of any kind, if not highly seasoned, cooked with rice or barley or vegetables, but strained clear after cooking; cream soups made from milk and the puree of vegetables; any cereal, provided that it is cooked for at least three hours, and the husks and coarse particles are removed by the puree sieve; white bread thoroughly toasted, soda crackers, zwieback, shredded wheat biscuits, served with butter or cream; cream cheese; cooked fruits, such as baked apple or pear, or apple sauce, or stewed dried fruits, as prunes or peaches, if put through the puree sieve; for dessert: rice pudding, corn starch, blanc mange, custards. Avoid coarse foods, such as hard-boiled or fried eggs; tough meats or meats cooked too long; or pork, veal or ham; vegetables, such as corn, string-beans, peas or spinach, unless prepared as a puree; coarse cereals, such as oatmeal, or cracked wheat unless strained through a puree sieve; all hot breads, and fresh fruits; all irritating foods, such as very salty, sour, peppery or highly seasoned dishes of all kinds, including salt fish, pickles, salads, acid fruits and drinks, and highly seasoned soups; and

all stimulating drinks, such as coffee, tea, and all alcoholic liquors."

With this second list, the patient is instructed to continue the glass of milk at 10 a. m. and 4 p. m.; the olive oil before and the alkaline powder one or two hours after three main meals. This new plan is kept up for three to six months, with the gradual addition of new articles of soft food as time goes by, but cautiously and adhering in the main to the original list. The olive oil and the powder may be discontinued as symptoms disappear; but even after all discomfort is gone and the patient feels perfectly well, care about diet must persist indefinitely.

If the patient's suffering seems unusually severe, or if what appeared to be an average case does not improve on the plan just described, then more rigorous management must be undertaken. Rest in bed becomes essential; and a diet is advised consisting of milk and cream exclusively, in small amounts at short intervals on a modified Sippy plan; with the alkaline powder given halfway between feedings, of soda, magnesia and bismuth, varied in proportions according to the condition of the bowels. After a week of no food but milk, other articles on the first diet can be taken one by one, if all goes well; then that list can be adopted as a whole; and then gradually the second list can be substituted for the first. Detention in bed usually need not exceed two weeks.

By following the plan first described, most patients lose their symptoms without detention in bed and exclusive milk diet. Some require this more rigid routine and do not cease to suffer until it is employed. Some fail to find comfort even then, and such constitute one of the groups for whom operation has to be considered. *Experience impresses the conviction that, whatever treatment is given, ulcer may some day relapse in spite of it; and this is true after surgical, as well as after medical "cures."* Patients cared for by any plan may remain well for months or years; but after repeated indiscretions in diet or some prolonged physical or mental strain, their symptoms not infrequently recur and a new attack persists for weeks or months, exactly like the old. It seems that after any plan of dietetic or medicinal management, or after gastro-enterostomy or pyloro-plasty or any other surgical method, a weak spot remains in the stomach, of unhealthy tissue, a scar at best, always liable to make trouble at some future time. In many cases this never happens, but only too often it does, so that it appears impossible ever to assure ulcer patients that they are permanently cured.

One last word of the utmost importance remains to be said. *In recent years we have learned to suspect infection as a cause of peptic ulcer. It seems possible, therefore, that when an ulcer relapses after careful routine treatment, or a new one develops, this may be due to reinfection.* Hence, it is urgently advised in every case to search for and remove all foci, particularly those about the teeth and gums, tonsils, naso-pharynx, and sinuses, in addition to the dietetic and medicinal therapy described.

210 Post Street.

THE OPTIMUM TEMPERATURE OF OPERATING-ROOMS

By EMMET RIXFORD, San Francisco

INTRODUCTORY NOTE

The optimum temperature of operating-rooms is one of the many, many smaller and less spectacular problems of medicine. It is in the correct solution of these that, in the aggregate, we may still further reduce the hazards of surgery. The revived interest in the subject of the controversial question of the most favorable temperature for an operating-room, particularly in England, led the editor of CALIFORNIA AND WESTERN MEDICINE *to ask Doctor Rixford to open a discussion of the subject for our publication.*—EDITOR.

DISCUSSION *by Emmet Rixford, M.D., San Francisco; Andrew Stewart Lobingier, M.D., Los Angeles; Charles D. Lockwood, M.D., Pasadena; Wallace I. Terry, M.D., San Francisco; A. J. Ochsner, M.D., Chicago; E. Starr Judd, M.D., Rochester, Minn.*

"London warms to the theme, 'Why a hot operating theatre?' apropos of an article in the Lancet, in which Dr. R. P. Rowlands, surgeon to Guy's Hospital, protests against the torrid tradition. Probably the custom of parboiling the surgeons and the spectators dates back to days before sterilization. There is no reason in this world that an operating theatre should have the climate of Yuma or Gehenna."

Why not? If the Editor had practiced surgery in Yuma or Bakersfield or Fresno in summer, he would realize that his sorrows in England were due more to humidity than to temperature. Of Gehenna we cannot as yet speak authoritatively, it being still subjudice as to whether it is wet or dry. Nevertheless, we must agree that many, if not most operating-rooms are abominably hot and humid, partly because of failure on the part of hospital authorities to appreciate what is reasonable in the premises, and partly by design under the notion that the dangers of shock and of pneumonia are diminished in some proportion to the elevation of the temperature of the operating-room. What are the facts?

So many other factors contribute to the production of shock that it is difficult to assign to any one its relative role: loss of blood, surgical trauma of the tissues, prolonged anesthesia, traction on the mesentery, pressure on the diaphragm leading to respiratory and cardiac fatigue, etc., none of which has anything to do with the temperature of the operating-room.

Eighty degrees (F.) is the conventional temperature in many operating-roms. But why 80°? Why not 98° or 100°? The normal temperature of the interior of the body is 98.6° It would seem to be no trifling matter then to expose the intestines for any considerable length of time to a temperature 18° or 20° lower. The obvious corollary is that the intestines should not be exposed more than is absolutely necessary in any case. If this precaution is taken it is hard to see wherein an operating-room temperature of 70° would be materially worse than 80° or even 90°.

Payr of Leipzig is said to be intolerant of a temperature above 60° or 65° in his operating-room, and we are informed that pneumonia is not more common in his clinic than in others where the surgeons and assistants are consistently "parboiled."

A person with less than his usual clothing on lying in a room at 80° soon chills—he would chill

more quickly if cold ether vapor were poured into his lungs; therefore, the patient on the operating-table should be kept warmer than ordinarily either by artificial heat or by preventing loss of body heat. For the former, hot-water tables have been devised, but are used but little because of technical difficulties of keeping them at just the right temperature. Nothing more surely produces shock than overheating.

In good operating-room practice the patient lies on a cushion or mattress, which is a non-conductor of heat, and his body is clothed—all but the operative field—somewhat more thoroughly than would make the patient comfortable in bed in a room at the temperature of the operating-room. Garments wet with perspiration are replaced by hot, dry ones before the patient leaves the operating-room.

In operations on children, the body, limbs and all, is swathed with cotton wadding—excepting only the operative field, because of the large skin surface of the child relatively to the weight and, therefore, the more rapid loss of heat of the child than of the adult.

Drying of the intestines has objections of its own, but one cannot hope to so increase the humidity of the atmosphere of the operating-room as to prevent evaporation of the warm moisture of the intestinal wall—another reason for avoidance of exposure of the intestines. Covering exposed intestines with warm moist gauze is well enough if the temperature is maintained, but evaporation speedily lowers it, and, unless the compresses are constantly changed, the effect is one of cooling, not warming. Dry compresses, on the other hand, prevent evaporation and conduction of heat.

Of course, it is more comfortable for surgeons, assistants, and nurses to work in a cool operating-room, but their comfort is and should be secondary to that of the patient. Our thesis is that comfort of the operating personnel makes for better surgical technique, of which the patient receives the benefit.

Excessive perspiration is quite as much the result of high humidity as of high temperature, barring surgical panic and what might be called the caloric effect of proximity of large blood vessels.

In many hospitals the service rooms are in direct connection with the operating-rooms, and clouds of steam from sterilizers pour in, raising the humidity to a distressing degree. Moreover, stale, second-hand, foul air, so often found in operating-rooms, makes for mental obtundity on the part of the surgeon and exhaustion on the part of all, including the patient.

Seventy degrees (F.), or even 65°, would seem to be a reasonable temperature for an operating-room, and if fresh air in abundance is supplied, neither excessively dry nor markedly humid, a sort of middle ground is found in which the various dangers mentioned are, as it were, balanced and minimized.

DISCUSSION

Andrew Stewart Lobingier (Merritt Building, Los Angeles)—Dr. Rixford has expressed in terse and clear language, the important reasons why an operating-room should be comfortably cool and dry. In the altitudes of our California cities, ether pneumonia is a rare sequel. In the higher altitudes and the colder climates it is a matter of importance that the operating-room and the corridors leading from it should be comfortably warm. A temperature of 70 in winter and 65 in summer, free from drafts and humidity, would represent conditions favorable to the comfort and well-being of the patient, the surgeon and assistants.

The point that the steam from the sterilizing-room should not be permitted to make the air in the operating-room humid, is of equal importance with the need to "air out" the operating-room between operations, allowing a pure atmosphere for the next operation.

Modern methods of heating and ventilation disregard atmospheric and temperature conditions outside the building. It would be quite possible to keep an operating-room, winter and summer, at 65 per cent humidity and 65 degrees Fahrenheit, whether in Fresno, Philadelphia, or New Orleans. But it would require a much more elaborate and expensive construction than is found in the average hospital today. Some day we shall pay more attention to the purity, dryness and comfortable coolness of the operating-room, regardless of cost, and less attention to tile floors and white glass walls.

And the writer has happily thought of that other comfort for his patient—a comfortable operating-table mat, thick and soft enough that the patient who lies relaxed and helpless upon it for an hour or more will not complain more of "table pains" than of her wounds. That surgeon is great who is constantly tender and humane.

Charles D. Lockwood, M. D. (Citizens' Savings Bank Building, Pasadena, California)—I am in entire accord with the opinion expressed by Dr. Rixford upon the subject of the temperature of operating-rooms. There can be no doubt that the close, hot air of the average operating amphitheater has an enervating effect upon both patient and the operating personnel. We have been dominated by tradition in this as in many other subjects in medicine.

The same rules which govern one in the matter of clothing in ordinary life should also maintain in the operating-room. The sensible man or woman today does not wear the heavy woolen underclothing of our forefathers, even in cold weather, but relies upon the outer garments to ensure comfort. In this manner a much more even body temperature is maintained. In a like manner the warmth of a patient in the operating-room should be regulated by blankets rather than by excessive temperature of the operating-room. Anemic, asthenic, or greatly debilitated patients should have more covering for the body and more external heat than those who are robust or in approximately normal health.

The most important factors in preventing post-operative complications are gentleness in handling tissues and an abundance of fluids. Experienced surgeons have little fear of shock, ileus and pneumonia if they have had an opportunity to prepare their patients properly. The temperature of the operating-room has little to do with it.

Another important factor is good ventilation. Except in the coldest weather, operating-rooms should be opened up between operations and free circulation of fresh air permitted.

These are the main desiderata: 1. A comfortable temperature for the operating personnel. 2. Coverings and external heat adapted to the individual patient. 3. Free circulation of fresh air.

Wallace I. Terry (380 Post Street, San Francisco)—It has been found that the heat-regulating mechanism in dogs is abolished by etherization (Barbour and Bourne, Am. Jour. Physiol., Vol. 67, 399, 1924), and it is fair to assume that this would hold true for the human being. The experiments showed that the animals became poikilothermic under anesthesia, i. e., their temperature was markedly influenced by the temperature of the surrounding air. It was further discovered that the optimum temperature of the room at which there was no change in body temperature was 30.5 degrees C. (86.9 degrees F.). Below that point the body temperature fell, and above it the temperature rose. It was also noted that the relative humidity of the atmosphere had no influence on the temperature of the animals under ether. There can be no question but that a temperature of 87 degrees F. is uncomfortably warm for an operating-room, particularly if the humidity is high, but a relatively dry atmosphere of 76 to 78 degrees F. does not cause excessive perspiration. Dr. Rixford has very rightly stressed the unpleasant effects of humidity—

the admission of steam into operating-rooms being the principal factor.

Except that I believe an operating-room should be kept at a temperature of from 76 to 78 degrees F., for the reason that a lower temperature abstracts too much heat from the anesthetized patient, I agree entirely with Dr. Rixford's conclusions.

A. J. Ochsner, M. D. (2106 Sedgwick Street, Chicago)—The views expressed by Dr. Rixford correspond so perfectly with mine, and also with my practice, that there is practically nothing that I wish to add except that I have tried both the high, the moderate, and the low temperature. The high temperature as high as 85 degrees F., the moderate in the 70's, and the low temperature from 68 degrees F. to 72 degrees F.

My observations, covering over 40,000 surgical operations, have convinced me that a temperature of between 68 degrees and 72 degrees F. is the best for the patient from every standpoint. The patient never suffers in any way from this temperature; it is the temperature he chooses when not under operation. The surgeon can do better work in that temperature than in any other, and consequently there can be no benefit from the higher temperature, while it certainly does harm by impairing, at least to some extent, the efficiency of the operator and his assistants.

There is one point that I have found of the very greatest importance in the planning of operating-rooms. This consists in having in the ceiling of the operating-room one or more ventilating shafts of the type known as Globe Ventilators. The size of this ventilator should be in proportion to the size of the room. This ventilator does not permit smoke, or any dust, to fall into the room, because, no matter how hard the wind blows or from what direction it comes, it always produces an upward draft. This, of course, is increased by the higher temperature in the room causing the current of air to pass out through the ventilating shaft whenever the outside temperature is below 68 degrees F. When the outside temperature is above 68 degrees F. the ventilation should be increased by the opening of windows in a manner not to produce a draft on the patient.

In this way the patient and everyone else in the operating-room breathes pure air at the most desirable temperature, and I am convinced that absolutely no harm can come from exposure of the tissues if they are properly cared for.

E. Starr Judd, M. D. (Rochester, Minn.)—The question of the temperature to be maintained in an operating-room during an operation has been seriously considered in the past, but largely owing to the sensible attitude of some of the earlier American surgeons a high degree of temperature has been shown to be not only unnecessary but often detrimental. As Doctor Rixford and the others who have discussed this subject have maintained, from 72 degrees to 76 degrees F. is a comfortable temperature for patient and operator, and is undoubtedly the temperature to be preferred. It is well known that when a patient is shocked the application of heat is most important, but, as Doctor Rixford has said, the cause of the shock, such as hemorrhage or trauma, is always well known at the time.

Pulmonary complications are more likely to occur if the patient leaves the operating-room in a heavy perspiration, particularly if it is not possible to prevent exposure to a draft. During the operation, or in the first few hours afterward, a draft of air is much more likely to be the cause of trouble than almost any degree of cold air without the draft. It has been noted in the Mayo Clinic that pulmonary complications are much more likely to occur during epidemics of respiratory tract infections. Such patients enter the hospital unaware of the fact that they have the infection, which becomes active when their resistance is temporarily interfered with at the time of the operation. During certain times of the year there are absolutely no signs of respiratory tract infections.

Patients operated on for lesions of the stomach are more prone to pulmonary complications than all other patients combined. The possibility of embolus from the walls of the stomach to the lungs as the source of the complication, has been considered, and also of the staying of the diaphragm during operations on the stomach. Patients who have been operated on for gastric lesions are also more likely to inhale and aspirate infected mucus from the nasopharynx than are patients during other types of operations. Any patient having an infection in the nose or throat should be treated before serious operation is undertaken.

Shock and pulmonary complications are no more likely to follow an operation performed in a comfortably heated operating-room than in one in which the temperature is very high. The patient must be protected against drafts both during the operation and during his convalescence.

CLOSING NOTE BY THE EDITOR

If this discussion only succeeds in focussing attention upon the facts about one of the thousand and one details connected with the practice of medicine, it will have been well worth while.

As a matter of fact, it will do much more. I am optimistic enough to believe that it will result in increasing comfort for patients, doctors, and nurses, and perhaps sometimes preventing pneumonia and possibly saving life.

If others have worth-while questions they would like to have a composite medical opinion about, send them in to California and Western Medicine.

CARBUNCLE OF THE KIDNEY

By CHARLES P. MATHE, M. D., San Francisco
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Carbuncle of the kidney resembles carbuncle in other places in the body. It is a suppurating inflammatory process secondary to some primary staphylococcic infection in the skin or elsewhere.

Careful complete study will supply sufficient reliable evidence from which to make a positive diagnosis.

One complete case report.

The treatment is surgical.

Illustrations by Ralph Sweet.

For references consult the Index Medicus or the Quarterly Cumulative Index of the A. M. A.

Discussion *by Laird M. Morris, San Francisco; H. A. Rosenkranz, Los Angeles; Robert V. Day, Los Angeles; L. P. Player, San Francisco, and the author.*

Carbuncle of the kidney may be defined as a circumscribed infectious inflammation, with the formation of multiple foci of necrosis, often ending in a suppurating slough. It is secondary to staphylococcic infections elsewhere in the body, usually manifested in the skin. It simulates a subcutaneous carbuncle.

In 1894 Israel pointed out that kidney carbuncle existed as a clinical entity, and observed its similarity and relation to carbuncle of the neck. Later, Jordan, Zinn, and Barth, in Germany, and McWilliams, Eisendrath, Fisher, Kretschmer, and Furniss, in this country, reported additional cases presenting its typical pathological picture. One must not confuse kidney carbuncle with single or multiple renal abscesses or with acute septic infarct of the kidney in which the kidney is studded with multiple minute abscesses. In these, as in perinephritic abscess, the infection enters by the blood stream. The carbuncle usually develops in the cortex of the kidney near the capsule with a larger central abscess gradually increasing in size surrounded by smaller, more minute abscesses. As the pathological process progresses, these may become more or less confluent, producing a large renal abscess.

The portal of entry is through the blood stream. The original site of entrance of the staphylococcus aureus is usually in the skin or bone. It may be a furuncle, carbuncle of the neck or gluteal region, felon, osteomyelitis, or paronychia. This original

PLATE I

Left—Enlarged upper pole with thickened adherent capsule.
Right—Capsule split, demonstrating hemorrhagic area with central necrosis.

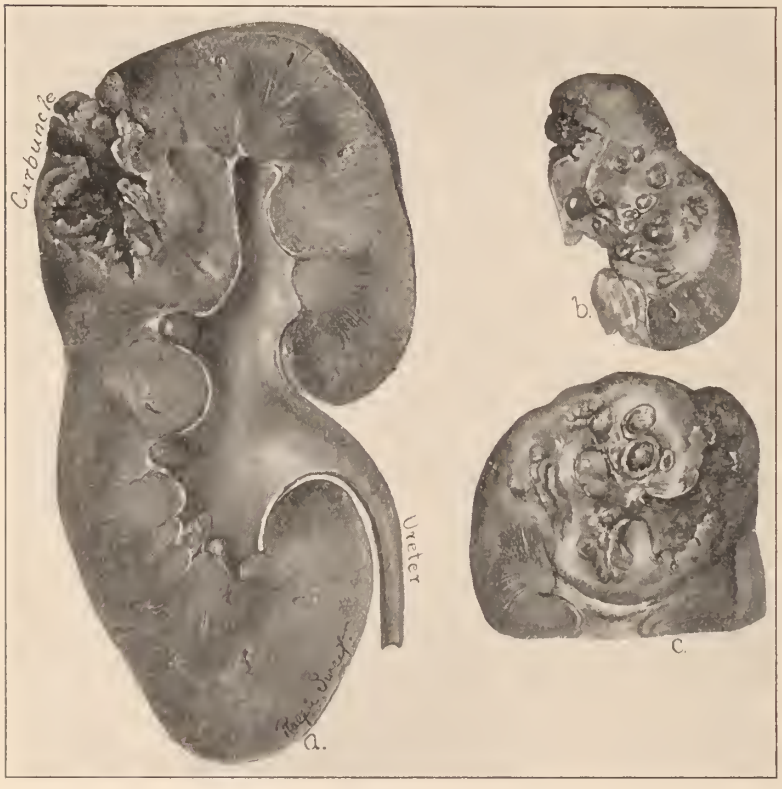

PLATE II

Left—(A) Sagittal section through carbuncle, showing encroachment on upper primary calyx with corresponding elongation.
Upper right—(B) Cross-section through the periphery, showing numerous small abscesses.
Lower right—(C) Deeper section, showing central necrosis and adjacent abscesses.

focus may be so slight that it escapes the observation of the patient and can even be overlooked by the attending physician. The organisms enter the blood stream, and a culture of the blood at some time or other, usually early, would reveal its presence. In the case herein reported, staphylococcus aureus was cultured from the blood before and after operation. In 1899 Schnitzler pointed out the fact that organisms may enter the body and not infect the individual, but in the event of trauma, localized infection may ensue. This local infection can later give rise to further metastatic and general infection. In 1897, Busquet reported a case of abscess of the right kidney. The patient fell from a wagon on his back, traumatizing the kidney. Later, following a furunculosis of the arm, a renal abscess developed which was successfully opened and drained.

It might naturally be inferred that these blood infections of the kidney would produce bilateral lesions. Israel, Simon, Brewer, and others emphasize the large number of unilateral cases because of diminished resistance (locus minoris resistentiae) of that particular organ as a result of previous disease or injury. This frequent unilateral lesion offers the possibility of relief by early correct surgical interference. The organisms transmitted from this original focus lodge in an end artery of the kidney, usually in a glomerulus in the cortex near the renal capsule, and thus the development of renal carbuncle is started. As the pathological process continues, a circumscribed infection of the adjacent renal cortex takes place, with fibrinous exudation, multiple foci of necrosis arises, the tissue adjacent to each necrotic plug becomes gangrenous. The entire circumscribed inflammatory area can develop into a suppurating slough and extend through the renal capsule, setting up a secondary perinephritic abscess. Rehn calls attention to the fact that the organisms may lodge in the perirenal fat first, carried by the artery capsuloadiposae, start an abscess which may remain as a perinephritic abscess or extend to the kidney secondarily and give rise to renal infection.

In my case of renal carbuncle

the primary focus was in two boils under the right jaw-bone. Staphylococcus aureus was demonstrated in the blood prior to operation and in the kidney after nephrectomy, and as there are not many such cases reported in the literature, I herewith present this case.

Miss C. H., age 23, kindergarten teacher. Referred by Doctors Orr and Ryer. Admitted to St. Mary's Hospital November 30, 1923.

On September 30, 1923, the patient was treated by Doctors Montgomery and Culver for pustules on the skin covering the right jaw-bone and on the upper lip. The superficial crust of the pustules was removed, followed by the application of boric acid compresses. On October 3, 1923, two boils developed under the right jaw-bone, attaining the size of an almond. These drained slightly and closed quickly, disappearing in a few days. The following three weeks were characterized by malaise, loss of appetite, and lack of ambition. On October 31, 1923, the patient noted, after taking a hot bath, a dull aching pain in the right lumbar region, non-radiating in character, but persisting for three days, at the end of which time it became very sharp and intermittent in character, coming every three to six hours and lasting two to three minutes. On the evening of the fourth day, a high fever developed, lasting two days. These attacks of pain were accompanied by nausea and sometimes vomiting. Belching of gas was also noted. There was also slight dysuria and increase in frequency of urination with nycturia 1 to 2. No hematuria, calcuria, nor cloudy urine was observed.

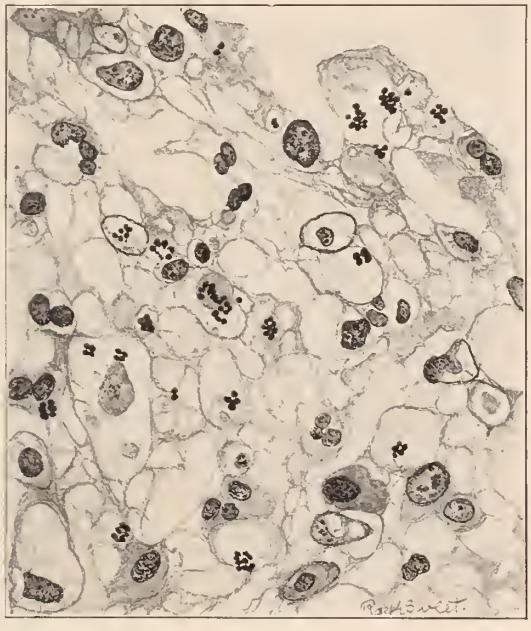

PLATE III

Section of wall of abscess, showing staphylococcus aureus in plasma cells and polymorphonuclear leukocytes. In this area the renal tissue is completely destroyed.

Physical Examination—Head and heart negative. On the neck one sees the scars of two healed boils under the jaw-bone. Blood pressure—systolic, 100; diastolic, 50. In the chest, a few moist rales and tubular breath-sounds are heard over both apices. In the upper right abdominal quadrant a very tender, rounded, regular mass, resembling the lower pole of the right kidney was palpated, which moved with respiration. The overlying muscles were somewhat rigid. Tenderness and bulging was observed in the costo-vertebral angle.

Laboratory — Blood examination: Hemoglobin, 60 per cent; erythrocytes, 3,664,000; leucocytes, 18,100; polymorphonuclear leukocytes, 72 per cent; small mononuclear lymphocytes, 20 per cent; large mononuclear lymphocytes, 8 per cent. Blood culture shows staphylococcus aureus. Blood chemistry: Urea nitrogen, 12.5 mg. per 100 cc.; non-protein nitrogen, 23.7 mg. per 100 cc.; and creatinine, 1.6 mg. per 100 cc. Catheterized specimen of urine shows no acid-fast or other organisms in the stained smear. A faint trace of albumin and an occasional leukocyte seen. Phenol sulphone phthalein test (intramuscular) 67½ per cent recovered in two hours.

X-ray examination reveals an enlarged right kidney with no evidence of stone in either tract. Pyelogram on the right side shows a narrow pelvis with elongation of the upper primary calyx. There is blunting of the minor calices of the upper two primary calices. A pocket-like defect is seen medial to the upper primary calyx. There is marked kinking of the ureter at the uretero-pelvic junction.

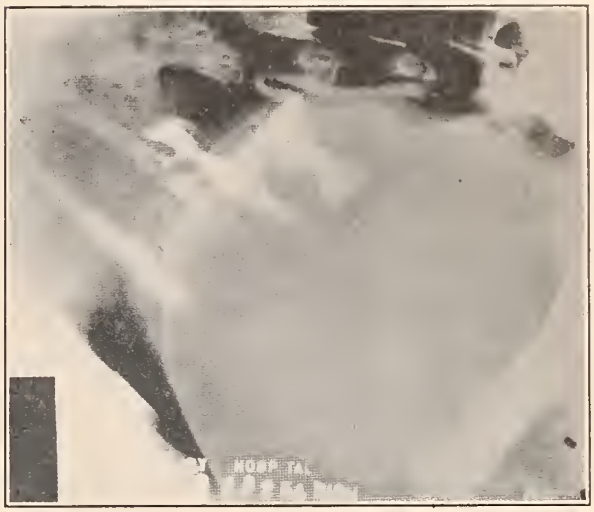

Figure 4—Pyelogram demonstrating elongation of upper primary calyx.

Cystoscopy, December 1, 1923. There is moderate injection of the trigone and right ureteral orifice. The mucosa in all three bladder zones is very pale. Both ureters catheterized with ease. The following is the individual kidney and bladder catheterized findings:

	KIDNEY		BLADDER
	RIGHT	LEFT	
Macroscopic	Clear + shreds	Clear	Clear + shreds
Erythrocytes	Occasional	None	None
Leukocytes	Occasional	None	Occasional—1-4 to H. D. F.
Casts	None	None	None
Ep thelium	5-6 to H. D. F.	1-2 to H. D. F.	6-8 to H. D. F.
Stained smear	Few gram + cocci	Few gram + cocci	Few gram + coc
Culture	Staph. aureus	Staph. aureus	Staph. aureus
Phthalein app. time (intravenous)	2½ min.	2½ min.	
1st 15 min.	20%	25%	
2nd 15 min.	5%	10%	
	25%	35%	

Operation—Nephrectomy. The usual curved linear lumbar incision was made on the right side. On opening gerota's capsule, 60 cc. of clear serum exuded. The kidney was found to be densely adherent to the surrounding structures, particularly in the mesial portion of the upper pole. It was also enlarged, and on the anterior mesial aspect of the upper pole was found a tumor mass 5 cm. in diameter. The center of this mass was softened and necrotic with pus exuding, thereby dissecting away the upper third of the true kidney capsule which was not perforated. Through the capsule one could see a collection of sanguino-purulent fluid in which numerous large white flakes were seen. The pedicle was then clamped and tied off with No. 2 catgut and the kidney removed, care being exercised not to rupture the renal capsule containing the pus.

PATHOLOGICAL DESCRIPTION

Kidney: S. 24,215. Miss C. H.

Gross Description — Weight, 160 grams. The

TABLE 1

Reference Author	Sex	Age	Initial Lesion	Time Between Initial Lesion and Renal Symptoms	Symptomatology	Urine Findings	Organisms	Function Study	Treatment	Specimen at Autopsy or After Operation	Results
Israel	Male	43	Carbuncle of neck.	Simultaneously	1–Fever. 2–Pain and swelling on left.	Trace of albumin. Few W. B. C. Hyaline cast.	Staph. aureus		Incision and later nephrectomy 4 weeks after symptoms.	Carbuncle of posterior upper pole—2½ cm. Perirenal abscess.	Recovery
Israel	Male	....	Furunculosis	One month	1–Stormy paranephritis. 2–Fever. 3–Pain and swelling (location not given).	Not reported	Staph. aureus		Operation 5 weeks after onset of symptoms. Incision and drainage. Later excision of carbuncle.	Carbuncle of posterior upper pole. Kidney.	Recovery after a month.
Israel	Male	37	Carbuncle of neck.	23 days	1–Fever 39.9. 2–Pain and swelling in left flank—swelling came later.	Trace of albumin. Many W. B. C. Few R. B. C.			Nephrectomy	Carbuncle surrounded by small abscesses in middle posterior part of left kidney.	Recovery after pneumonia. Pleurisy and rib resection for empyema.
Jordan	Male	36	Gluteal carbuncle.	Simultaneously	1–High continued fever. 2–Pain and swelling bilat., especially on right.	Negative.	Staph. aureus		Incision and drainage	Carbuncle on posterior surface right kidney; "pigeon-egg size" beneath capsule.	Recovery
Jordan	Female	24	Paronychia of middle finger.	2 or 3 weeks	1–High continued fever. 2–Pain and swelling on right.	Negative.	Staph. aureus		Incision and drainag 2 weeks after onset.	Carbuncle right kidney, size of small apple, upper pole posterior. Perirenal abscess.	Recovery
Jordan	Male	27	Laceration of finger. Infected a number of weeks.	Concomitant	1–Fever. 2–Pain in left hypochondrium. 3–Swelling 10 weeks after onset in left lumbar region.	Negative.	Staph. aureus		Incision and drainage weeks after symptoms began.	Perinephritic abscess. Kidney not examined. Reported as carbuncle.	Recovery
Jordan	Male	....	Gluteal furuncle	1-2 weeks	1–High fever. 2–Bilateral pain and swelling over kidneys, especially on right. 3–Swelling on left subsided spontaneously 4 days post-operative.	Negative.	Staph. aureus		Incision and drainage of right kidney only.	Renal carbuncle upper pole. Right kidney.	Recovery 6 weeks.
Barth	Male	10	Unknown	First symptom. First knowledge that boy was ill.	1–Chills and fever. 2–Pain and swelling on right.	Normal until time of second operation; then few R. B. C. and W. B. C.	Staph. aureus		1–Incision and drainage. 2–Two weeks later resection of carbuncle.	Carbuncle of upper pole of right kidney.	Recovery in 2 months.
Barth	Male	21	Unknown. Later, post-operative, a prostatic abscess was found.	First symptoms	1–Fever 38.5° C. 2–Pain in right flank. 3–Swelling.	Right Kid. Few W. B. C. Few R. B. C. Cocci and rods Left Kid. No bacteria	Not definitely determined.	Right: App. time 1.12 Phloridizin Sugar in 23 min. Left: App. time 1.69 Phloridizin Sugar in 10 min.	Incision and later nephrectomy—right.	Carbuncle 7x3 cm. in middle of posterior surface of right kidney. Examined 10 years later.	Recovery in 2 months.
Barth	Male	28	Not given	First symptoms	1–Fever 39°-40° C. 2–Pain and swelling on right.	Albumin—W. B. C., R. B. C. and casts.	Staph. aureus	Right: Indigo None Left: Carmine App. in 8 min.	1–Incision and drainage 3 weeks after onset. 2–Nephrectomy 1 week later. Diagnosed "Carbuncle."	Carbuncle of lower pole of right kidney size of apple.	Recovery in 3 months.
Barth	Male	34	Gluteal furuncles bilateral; squeezed, not incised.	Symptoms appeared about time of second furuncle.	1–High fever 40° C. 2–Pain and swelling in right flank.	Negative. Later a few R. B. C.; then trace of albumin. Few R. B. C., W. B. C. and staph.	Staph. aureus	Right: Indigo None after 35 min. Left: Carmine App. in 10 min.	1–Incision and drainage. 2–Two weeks later nephrectomy. Diagnosed "Carbuncle."	Carbuncle 5x4 cm. on convex border.	Recovery. Patient developed pneumonia postoperative.

TABLE 1 (Continud)

Reference Author	Sex	Age	Initial Lesion	Time Between Initial Lesion and Renal Symptoms	Symptomatology	Urine Findings	Organisms	Function Study	Treatment	Specimen at Autopsy or After Operation	Results
Zinn	Male	26	Furuncle on side of nose.	2-3 weeks later	1–Fever to 40° C. 2–Pain and swelling right renal region.	Negative to time of operation.	Staph. albus and aureus.		Incision and drainage of right kidney two weeks after onset of symptoms.	Thrombosis of venacava and iliacs. Carbuncle of upper pole right kidney extending to liver.	Died 4 days post-operative.
Zinn	Male	25	Furunculosis of neck.	4 months later	1–High fever (39-40°) coming suddenly. 2–Pain and swelling right renal region.	Negative to about time of operation; then albumin trace. Few R. B. C. and W. B. C. Occ. hyaline cast.	Staph. aureus		Incision and drainage 3 weeks after onset.	Carbuncle upper pole with perirenal abscess.	Complete recovery 8 weeks post-operative. Thrombas of left leg. Hearing disturbed.
Zinn	Male	55	Carbuncle of neck. Excised by cautery.	3 weeks	1–Intermittent high fever. 2–Pain and swelling (renal region). 3–Chills.	Trace of albumin. Few R. B. C. and W. B. C. Occ. hyaline cast; rods and cocci.	Staph. aureus		Incision and drainage 2-3 weeks after onset.	Carbuncle of upper pole and perirenal abscess.	Complete recovery after 6 weeks.
Zinn	Female	24	Furuncles on left arm.	1 week	1–Chills and fever. 2–Pain and swelling (renal region). 3–Loss of weight, 5 kgm. in 2 weeks.	Albumin trace. Few R. B. C., W. B. C. and hyaline casts. Few organisms appeared fairly late.	Staph. aureus		Incision and drainage 4 weeks after onset.	Carbuncle upper pole with perinephritis.	Complete recovery after 2 months.
Furniss	Female	—	Boil on neck	14 days	1–High temperature. 2–Sick feeling. 3–Pain in left renal region and border of ribs.	Few pus cells		Indigo carmine delayed left side.	1–Drainage perinephr tic abscess. 2–Nephrectomy.	Lower pole carbuncle size of walnut with numerous openings containing pus.	Recovery
Fisher	Male	24	Infection on left index finger.	3 weeks	1–Fever 103.4°. 2–Pain right lumbar region. 3–Large swelling. 4–Pulse 140.	Albumin trace. Few pus cells.	Staph. aureus		1–Drainage of perinephritic abscess 3 weeks later. 2–Nephrectomy.	One-half upper pole kidney necrotic.	Relieved
McWilliams	Female	38	Abscess of left index finger involving bone.	3 weeks	1–Pain right lumbar region and abdomen. 2–Increased frequency. 3–Chills; fever. 4–Temp. 103°, pulse 102. 5–Leucocytosis 14,800.	R. K. Few pus cells. L. K. Few pus cells.	Staph. aureus	60%—2 hours	Nephrectomy		Recovery
Eisendrath	Male	—	Furuncle; carbuncle of neck.	6 weeks	1–Pain in right lumbar region. 2–Fever. 3–W. B. C. 27,000. 4–Pulse high.	Negative.	Staph. aureus		First, opening of perinephritic abscess; later nephrectomy.	Carbuncle lower pole.	Recovery
Kretschmer	Female	35	Felon right thumb incised; necrotic bone removed.	7 months 5 weeks	1–Constant dull pain left side, not associated with urination. 2–Abdominal colic. 3–Nausea. 4–Frequency of urination. Leukocytosis 14,400.	R. K. and B. No pus cells. Culture R. K. sterile. Bladder—Colon B. No. T. B.	Hemolytic staph.	58%—½ hour	Nephrectomy	Carbuncle anterior surface left kidney.	Recovery
Kretschmer	Male	34	Carbuncle of neck incised and drained; healed.	1 month	1–Slight pain lower abdomen. 2–Temperature 104.6°. 3–Nausea and vomiting. 4–Hematuria. 5–Frequent urination. 6–Dysuria. 7–Leukocytosis 16,800.	B., 110 W. B. C. R. K., 1050 W. B. C. L. K., 230 W. B. C.	B., staph. aureus R. K., staph. aureus L. K., sterile	R. K. 20% L. K. 26%	Nephrectomy	Large carbuncle posterior surface upper pole right kidney.	Death

capsule strips readily leaving a smooth surface marked by remains of foetal lobulations, except at the upper pole where there are firm adhesions and thickening of the fibrous capsule. In this region there is an elevated hemorrhagic area in the cortex, fairly sharply defined and measuring 5 cm. in diameter. Section through this area shows the hemorrhagic zone extending 2 cm. into the depth of kidney. In the center there is necrosis and hemorrhage, forming an irregular cavity about the hemorrhagic area, and diffusely scattered throughout the upper pole there are many small, irregular, yellowish foci suggesting minute abscesses. The rest of kidney parenchyma shows no gross changes except cloudy swelling.

Microscopic Examination — Sections from the main abscess show a hemorrhagic necrotic wall with no tendency to walling off. Other sections from the upper pole show minute abscesses and a diffuse acute and subacute inflammatory reaction with numerous foci of polymorphonuclear leukocytes and plasma cells. In other areas granulation tissue is found. Certain other areas show large groups of hyaline connective tissue, lymphocytic and wandering cell infiltration. Sections stained by modified Gram's method show the presence of numerous staphylococci.

Diagnosis—Carbuncle upper pole of kidney.

Post-operative Course — For three days after operation staphylococcus aureus was continuously found in the blood, after which time the blood was sterile to culture. The lumbar incision developed numerous boils at the site of each of the skin sutures. These readily cleared up with the application of mercurochrome 220 (1 per cent). The wound drained for four weeks and finally closed. Temperature gradually dropped and was normal on the twenty-second day. The patient was discharged from the hospital January 10, 1924, much improved. The weight had increased from 86 to 105 pounds, and since then to 126 pounds. The appetite and strength have returned.

FREQUENCY OF OCCURRENCE

Considering the frequency of skin infections, such as pustules, boils, carbuncles, felons, paronychia, and their relation to the etiology of cortical abscesses of the kidney, one is surprised at the infrequency of renal carbuncle. Many are no doubt overlooked, either being mistaken for a co-existing perinephritic abscess, a renal abscess or an acute septic infarct of the kidney. In some cases, however, due to delayed surgical interference, the renal carbuncle has developed into a kidney abscess. In twenty-two cases in which the sex is stated, sixteen occurred in males, and six in females. Fifteen cases occurred between the ages of 20 and 40, one at 10, one at 45, and another at 55, and in four cases the age was not reported. In eleven cases, the right kidney was involved, in eight the left, in two cases both, and in one the kidney affected was not stated.

TABLE II

TABLE OF OCCURRENCE OF RENAL CARBUNCLE

Right kidney	11 cases
Left kidney	8 cases
Bilateral	2 cases
Not stated	1 case
Total	22 cases

TABLE III

TABLE OF INCIDENCE ACCORDING TO SEX

Male	16 cases
Female	6 cases
Total	22 cases

TABLE IV

TABLE OF INCIDENCE ACCORDING TO AGE

10-20	1 case	(10 years)
20-30	9 cases	
30-40	6 cases	
40-50	1 case	(45 years)
50-60	1 case	(55 years)
Not stated	4 cases	
Total	22 cases	

SIGNS AND SYMPTOMS

The symptoms may be divided into (1) "General" and (2) "Urological."

General—The individual is usually acutely ill. There is a high fever which may or may not be ushered in by a chill. Fever is a constant symptom, being present in all the reported cases. It is usually very high—39-40 degrees (C) in the cases reported in Germany, and as high at 104.6 degrees "F" (Kretschmer) in this country. It may be intermittent or continual. Loss of weight and appetite, malaise and asthenia, etc., which are common to all inflammatory processes, are likewise present. Leukocytosis is constant, and varies from 14 to 27,000. In this case it was 18,000.

Urological—There is usually pain and tenderness in the involved lumbar region. The pain may radiate anteriorly to the abdomen, but does not seem to extend to the labia in women and testes in men as frequently as seen in the renal colic associated with a block in the ureter due to a stone, kink or stricture of the ureter. The pain may be continual, cramp-like, dull or cutting, associated with nausea and vomiting. It also may be intermittent with gas and belching, supplanting the nausea and vomiting during the remissions. The costo-vertebral angle is usually tender. There may be actual bulging or tumefaction of the affected side, accompanied by rigidity or spasticity of the overlying musculature. Oftentimes the urinary symptoms are so slight that the attention of the physician is drawn away from the urinary tract. Other times there is some increase in frequency, dysuria, and hematuria. The urine findings are such as one would encounter in any acute septic infection, such as pneumonia, typhoid fever, etc. The usual picture is an occasional leukocyte and erythrocyte, a slight trace of albumin and organisms in no great number. In fact, in studying the patient, one remarks the relative paucity of urinary findings in proportion to the severity of the illness. This can be explained by the fact that the occurrence of the carbuncle is first in the renal cortex near the capsule not communicating with the renal pelvis. The carbuncle, however, may increase in size, point toward the renal pelvis, and eventually rupture through, giving findings on the affected side indicating a pyogenic infection of the kidney. Again I wish to emphasize the urine findings as important by being relatively negative in comparison to the degree of illness of the patient.

Diagnosis — The pre-operative diagnosis is extremely difficult when one observes that, in the twenty-two reported cases, only four were diagnosed prior to operation (Kretschmer, two cases; Barth,

Figure 1—Section of the carbuncle, showing a large hemorrhagic area w th necrosis in its center. Leitz Oc. 1, Obj. 3.
Figure 2—Section showing one of the numerous foci of necrosis. Leitz Oc. 1, Obj. 3.
Figure 3—Section with hyaline connective tissue, lymphocytic and wan- dering cell infiltration. Leitz Oc. 1, Obj. 3.

two cases). A careful history relating the appearance of pain and swelling occurring in either lumbar region at a variable period anywhere from several days to several months, following a skin infection accompanied by high fever and leukocytosis, with relatively negative urine findings and symptoms, is of great importance and aid in determining the diagnosis. However, as skin infections are also responsible for perinephritic abscess, acute septic embolic kidney, kidney abscess multiple or single, it is almost impossible clinically to distinguish one from the other. Pyelography may be of some assistance. If the carbuncle has attained a large size, the primary and secondary calices may be elongated in that portion of the kidney, or there may be a pressure defect in the pelvis. A good plain plate should show an aberrant kidney outline.

TREATMENT

If the renal carbuncle is found early, simple incision and drainage may suffice to relieve the condition. This method was utilized by Zinn, in four cases (one which died four days later). Israel incised two of his cases, but was obliged to later do a nephrectomy in one and a resection in the other. Barth incised four carbuncles, and later was obliged to do a nephrectomy in three, and a resection in one. Jordan, however, reports four successful cases, in which the treatment was simple incision and drainage.

If the carbuncle is of long standing and it has attained such a size that resection cannot be employed, nephrectomy is the treatment of choice. This was utilized in our case. In the reported cases, excepting in the case of bilateral involvement, this method was without mortality, and in all cases brought ultimate relief to the patient. Nephrectomy also has the advantage of being followed by fewer complications than incision or excision.

It is well to bear in mind that, in opening a perinephritic abscess, the original focus may be a renal carbuncle. In five of the cases reviewed herein, the true pathology was not recognized at the time of operation, but on the persistence of the symptoms nephrectomy was made at a later date.

It may be well to note in passing that Souper reports a bilateral staphylococci pyelonephritis following a gunshot wound of the thigh that was cleared up by the use of large and frequent doses of autogenous vaccines. Jordan describes an interesting case in which there was bilateral pain and swelling over both kidneys, more marked on the right side. After incision and drainage of a carbuncle in the right kidney, the pain and swelling in the opposite side subsided four days later.

760 Market Street.

DISCUSSION

Laird M. Morris, M. D. (240 Stockton Street, San Francisco)—The complications of staphylococcus skin infection are quite characteristic and include, beside acute bacterial endocarditis, certain internal suppurative conditions, the principal of which are acute osteomyelitis, perinephritic abscess, kidney carbuncle, and acute myositis. The case of kidney carbuncle so thoroughly presented to us by Doctor Mathe is an excellent demonstration of the localization of staphylococci in the kidney substance proper without pus formation in the perirenal tissue. On the other hand, groups of cocci may lodge in the cortical region and a minute abscess extend to the periphery, thus involving the perirenal tissue and cause perinephritic suppuration. These are examples of intermittent blood-stream infection from a distant focus.

Trauma, as so correctly brought out by Dr. Mathe, is important as a means of localizing staphylococci to the part of lowered resistance. This is certainly true of acute pyogenic osteomyelitis, kidney abscess, and, to a lesser degree, of muscle abscess.

A history of boils or carbuncle followed at unstated interval of time (weeks or months) by symptoms of toxemia referable to the kidney region should cause one to consider the possibility of a staphylococcus infection of that organ either in the kidney substance proper, the perirenal tissue or a combination of both.

I wish to congratulate Dr. Mathe on this excellent presentation and the authentic review of the literature.

H. A. Rosenkranz, M. D. (Story Building, Los Angeles)—Doctor Mathe has made a distinct contribution to the literature on renal infection, and his emphasis on the etiology of renal carbuncle has opportunely indicated to us the necessity of taking into consideration infections of the skin, bones, etc., whenever the patient complains of acute renal or perirenal symptoms. Perhaps the condition most likely to be mistaken for carbuncle is acute unilateral pyelonephritis, especially that severe form complicated by renal or ureteral calculus. The lack of definitely positive urinary findings, however, should certainly cause one to consider carbuncle. I have found the aspirating needle invaluable in ruling out perinephritic abscess. There is another rare condition that should be considered, namely, pneumonia of a lower lobe, which, I have in one case observed to strongly simulate a renal, and in another case an appendiceal condition.

In about the year 1912 I saw Willie Israel, son of the father of kidney surgery, demonstrate before the Berlin

Urological Society, a case of carbuncle of the kidney. I recall that the carbuncle was very large, involving about one-half of the organ. The patient was cured by nephrectomy, which I consider to be the only safe treatment. An acute destructive infection of the kidney, I have been taught by a number of experiences, is a condition that may not be treated expectantly. The virulence of the infection cannot be gauged, neither can the resistance of the patient, but the mortality of septicemia resulting from this condition is high, and nephrectomy in order to remove the primary focus of infection should, I feel, be not delayed.

Robert V. Day, M. D. (Detwiler Building, Los Angeles)—I am sure I speak for everyone in this section, in saying that Doctor Mathe's presentation of this subject with a case report is a classical one and equals anything in the literature. Different organisms have favorite sites in the kidney for their attack. While tubercle bacilli and streptococci are apt to first invade the medulla, it is a well-known fact that staphylococci have a predilection for the extreme cortex of the kidney directly underneath the true capsule. Oftentimes the infection is a mixed one and the primary organisms may not be found after the disease has progressed for a short time; for instance, if careful Gram stains of the centrifugalized sediment from a freshly catheterized specimen of urine are made, streptococci with some colon bacilli will be found in the beginning of the attack and later on colon bacilli only, but these in great numbers. Streptococci are probably often present preceding or co-incident with the presence of the staphylococci in the blood stream or urine. Rosenow's work and views in regard to this seem to be the only hypothesis that explains our clinical findings. I am inclined to believe that, in some of these so-called carbuncles of the kidney with sloughs, streptococci have been present and have disappeared just as they usually do in the so-called colon bacillus infections of the kidney for which the colon bacillus is probably not responsible at all, and is simply a secondary invader—possibly antibiotic. We see so often in streptococcus cases of the kidney great destruction of the kidney substance and occasionally frank sloughing.

The so-called carbuncle of the kidney is in no way different from any other pyogenic hematogenous infection, except by the combination of abscesses and sloughs. Therefore, for the sake of simplicity in nomenclature, I think we should discard the term entirely, even though a great urologic genius—Israel—using his imagination, saw fit to term this condition carbuncle of the kidney and no one has seemed to possess the temerity to criticize it. It would be about as rational to speak of tonsillitis of the kidney in certain conditions with streptococcic infection with the primary focus in the tonsil. In the first place, a carbuncle is not a hematogenous infection, but is due to direct action of micro-organisms in the sebaceous and sweat glands and the hair follicles. It (carbuncle of the kidney) is probably many times more common than is indicated by the number of case reports, and this for the apparent reason that the vast majority of men operating upon these kidneys do not recognize the classification and hence fail to report them. I recall five cases that could be well classified under carbuncle if we follow Israel's nomenclature. Not infrequently a perinephritic abscess is secondary to such a process and, had the patient been subjected to surgery sooner, one would have found the infection confined within the true capsule of the kidney.

Regarding urinalysis: One may say that, even in the absence of pus in the urine, one almost always finds at least a trace of albumin and usually staphylococci if a Gram stain is made of the sediment of a freshly catheterized specimen of urine. Cultures are notoriously inaccurate, for the reason that they frequently are contaminations and, if bacteria are present and of renal origin, they are seldom missed after a carefully made Gram stain and careful search. About the only place for cultures in examination of urine is to positively identify organisms found by staining.

Doctor Mathe's patient had a history of trauma, which was probably responsible for the lowered resistance in this kidney; we must remember, however, that the most common and important cause of trauma in the kidney is back-pressure, and this invariably predisposes to infection.

Lionel P. Player, M. D. (380 Post Street, San Francisco)—Dr. Mathe's paper is a valuable contribution to medical literature, and he is to be congratulated upon his presentation of the subject. His review of the literature has enabled him to correlate and chart concisely some important data. The history and investigation of his own case is quite complete.

The urological, x-ray, and laboratory findings prove the difficulty encountered in an attempt at differential diagnosis from closely related renal or perirenal conditions, but serve to emphasize the importance of a urological study of cases presenting signs and symptoms of toxemia during or at any time following an acute staphylococcus skin infection, with only slight symptoms referable to the kidneys.

Treatment, according to the statistics collected by the author, is surgical removal if a single kidney is involved. If early recognition of kidney carbuncle were possible, certain dyes or their compounds, with other metals or chemicals which are being used in similar conditions with more or less success, might be employed in early monolateral and in bilateral involvement.

Doctor Mathe (closing)—I wish to express my genuine appreciation of the general acceptance of the urologists of this section of the relation of skin infections, such as boils, furuncles, felons, carbuncles, etc., to the formation of nephritic and perinephritic abscesses. Doctor L. Morris points out that internal suppuration may follow abscess formation of the skin at varying intervals of time, even weeks or months. In his recent review of thirteen cases collected at the University of California Hospital he brings out the fact that the peculiarity of the staphylococcus is that it grows ordinarily in clumps and clings together rather than spreads diffusely. These small groups lodge primarily in the glomeruli, and their pathogenicity calls forth abscess formation in the peripheral portion of the cortex of the kidney. Thus, he states, the name of kidney carbuncle has been given to such conditions by Israel.

The term "kidney carbuncle" was coined by Israel because he was struck by the great similarity of the pathological picture to that of the original focus—a carbuncle on the neck of a man 43. In the case herein reported, the pathologist in examining the specimen noted its great similarity to a carbuncle so often seen on the skin. Binnie, in his treatise on Regional Surgery, states that some carbuncles occur as the result of infection of hair follicles by the staphylococcus, others are caused by septic embolism of the subcutaneous arteries. Although the term "kidney carbuncle" may not be technically correct, it has been accepted and used by Israel, Jordan, Barth, Eisendrath, Furness, and others. Kretschner, in particular, in reporting his two cases states that there is no doubt in his mind of its clinical entity.

The aspirating needle is of great value in the diagnosis of perinephritic abscess, particularly if the abscess is dorsal, above or below the kidney. However, in those abscesses occurring in the fatty capsule ventrad to the kidney between the true renal capsule and peritoneum its use is not without danger. In the diagnosis of carbuncle it is obviously of no value unless the entire lesion has developed into one large slough. Dr. Day has noted that in these nephritic and perinephritic abscesses the urine usually shows a trace of albumen and organisms in the stained smear. There may be, in addition, a few leucocytes and erythrocytes. The point that I wish to emphasize, however, is the relative paucity of the urinary findings in proportion to the severity of the illness of the patient.

Doctors Rosenkrantz and Player have pointed out the importance of nephrectomy in the treatment of renal carbuncle, particularly if advanced. The lesion, although metastatic, acts as a new focus, forming a source of further infection. Statistics have shown that nephrectomy is the treatment of choice, that it has the lowest mortality.

"I am of the opinion, as we all are, that there ought to be no interference with the free exercise and enjoyment of religious profession or worship. But I am also of the opinion that statutory enactments ought not to be contrived to exempt from the just regulation of the occupation of healing those who under the name of religion pursue healing as an occupation for pay" is the opinion of Harry Eugene Kelly, a member of the Chicago bar. *"All persons who hold themselves out to the public as being engaged in the occupation of healing the sick for hire ought to be brought under the regulating statute,* regardless of their religious pretensions, ministrations or connections, and be made to conform to the single statutory standard of education and proficiency."—Federation Bulletin.

THE PROGRESSION REFLEX

By I. LEON MEYERS, M. D., Los Angeles
(From the Neurological Department, L. A. General Hospital)

The reflex, which is of considerable diagnostic importance, has not received the clinical study and application it deserves.

The reflex is not seen in the normal state.

The patients in which the reflex is seen with great constancy are those with lesions of the pyramidal tracts.

Interpreted physiologically, the reflex appears to represent the flexion phase of reflex-stepping in the "spinal" animal, or the progression reflex, which, according to the author, includes the Babinski toe response in man.

Marie and Foix, in a brief communication to the Societe de Neurologie of Paris at its session of July, 1910, reported a reflex which they observed in lesions of the pyramidal tracts and which consists in flexion of the paralyzed limb on passive flexion of the toes. The reflex, which is of considerable diagnostic importance, has not received the clinical study and application it deserves. It is my purpose in this paper to report my observations of this reflex in about fifty cases with various types of "paralysis" to point out certain of its features which have not been recorded before, and to give its physiologic interpretation, especially in its relation to the Babinski toe sign, a theory as to the physiologic interpretation of which I proposed in a previous communication.

The reflex is elicited best as follows: With the patient in bed in the recumbent position, and completely relaxed, and both his lower limbs fully extended, the toes of the paralyzed limb are grasped by the examiner between the thumb and forefinger and gently flexed plantarwards, when at some time during this procedure—the exact moment varying in different cases, but before pain is produced thereby—the limb is seen to go somewhat slowly and gradually into flexion at all its articulations.

Cases are met with, however, in which the reflex does not set in until the stimulus has been maintained for a minute or two, or has been repeated a number of times. It differs in this respect from the flexion of the limb which, as a voluntary movement of withdrawal, or as a reflex of defense, sets in on irritating the cutaneous surface of the foot by a pin-prick or pinching, in which case the movement of the limb occurs simultaneously with the application of the stimulus.

As to the movement of flexion in this reflex, it generally involves all the articulations of the limb, the foot being flexed on the leg, the leg on the thigh, and the thigh on the hip. It is, however, especially marked at the knee, the movement at this joint frequently being of such range as to form an angle of 90 degrees, or an angle even more acute. The flexion may, however, be of much smaller range, and not infrequently is so slight that the only conspicuous feature of the reflex is a contraction and rounding out of the hamstring and sartorius muscles.

The reflex is not seen in the normal state; in this state passive flexion of the toes, if not of such an extent as to cause pain and a voluntary withdrawal of the foot, produces no reflex movement of any kind.

The reflex is also never seen in lesions of the extrapyramidal "motor" system as, for example, in paralysis agitans of either degenerative or post-encephalitic origin, in chorea, athetosis, and chorea-athetoid encephalitis, whether the limbs are affected unilaterally or bilaterally.

In two cases of cerebellar lesions which have recently come under my observation, in which the pathologic process was apparently limited to the organ itself and did not involve, directly or indirectly, the pyramidal tracts, as was evidenced by the diminution in the tendon reflexes, the absence of a Babinski toe sign, etc., the flexion reflex was absent.

The patients in which the reflex is seen with great constancy are those with lesions of the pyramidal tracts, whether these exhibit themselves in monoplegia, hemiplegia, or paraplegia. I found it present in such cases in a proportion of about 80 per cent. As to the exact type of a lesion which is necessary to produce the reflex, I am as yet not prepared to make any definite statement. From the observations I have so far made I have gained the impression that it was the milder, the irritative rather than the destructive lesions of these tracts that give rise to it. A few illustrative cases follow:

Case I—E. A. (L. A. General Hospital, No. 207-216). Female. Fifty-nine years old. Had a stroke of right-sided hemiplegia with motor aphasia on April 8, 1924. Sudden onset. Was not unconscious. Examined on April 11. Patient is mentally clear. No auditory aphasia. Loss of power on right side incomplete. Patellar reflex on right side absent. No ankle clonus. Babinski, Chaddock, and Gordon are positive. Flexion reflex is unmistakably present. Re-examined on May 8. Patient has regained a good deal of power in right leg. Talks fairly well. Tendon reflexes on right side are slightly hyperactive. No ankle clonus. No Babinski, no Chaddock, no Gordon, no Oppenheim. A definite flexion reflex, which is present invariably on repeated testing.

Case II—J. C. (L. A. General Hospital, No. 107-820). Male. Forty-five years old. Hemiplegia of left side, which came on suddenly on December 25, 1923. Was not unconscious. Examined on March 25, 1924. Findings: Pupils unequal, left is wider. Both react to light and accommodation. Wassermann on blood as well as the spinal fluid is negative. Heart is greatly enlarged and gives both systolic and diastolic murmurs. Severe hemiplegia of the capsular type on left side. Tendon reflexes on the left side spastic. Positive rectus clonus and ankle clonus. Positive Babinski, Gordon, Chaddock, and Oppenheim. Cremasteric and abdominal absent. Arm contractured in flexion, leg in extension. Flexion reflex is absent.

Case III—J. G. (L. A. General Hospital, No. 207-820). Male Twenty-five years old. Skull injury on April 22, 1924. Examined on April 26, 1924. Patient had a number of clonic convulsions which were limited to the face, arm and leg on the left side. These began in the morning and recurred a number of times since. At the time of this examination patient was unconscious, but his pupils reacted to light. He presented a left-sided hemiplegia. The left leg and arm were limp and offered no resistance to passive movement. The tendon reflexes on the affected sides markedly hyperactive, the cremasteric absent, but he had no Babinski and no Chaddock, nor a Gordon. The flexion reflex was present.

Case IV—(L. A. General Hospital, No. 208-680). Luetic myelitis in the dorsal region with a partial Brown-Sequard syndrome. H. S. Male. Forty years old. Complains of complete loss of power in right lower limb, incontinence of urine, and numbness in both lower limbs, which developed within the ten days preceding his admission to the hospital. Exami-

nation on May 8, 1924, shows the following: Pupils irregular in outline, left is wider than the right, both react sluggishly to light, but well to accommodation. No cranial nerve palsies. Right side: Arm normal. Complete loss of power in lower limb. Sense of positive in that limb is lost; other sensations but slightly impaired. Deep reflexes are hyperactive. No ankle clonus. Positive Babinski, Gordon, Chaddock, and Oppenheim. Cremasteric and abdominal are absent. No flexion reflex. Left side: Arm normal. Slight loss of power in left lower limb; patient is hardly aware of it. Sense of position but slightly affected; other sensations much more so. Deep reflexes are hyperactive. No ankle clonus. Positive Babinski and Chaddock; no Gordon. Cremasteric practically absent. Abdominal present, but slight. Flexion reflex is in this limb present.

Case V—(L. A. General Hospital, No. 206-494). Cerebral arteriosclerosis with thrombosis of right middle cerebral artery. A. P. C. Seventy years old. Left-sided hemiplegia, which developed gradually during the morning of March 27, 1924. Examination on April 7, 1924. Heart is normal. Blood pressure, 165-105. Hemiplegia involving lower face, arm and leg on left side. Loss of power in affected arm and leg is complete. Tendon reflexes are all absent. No Babinski, no Chaddock, no Gordon. Cremasteric and abdominal on that side are lost. Flexion reflex cannot be obtained. Patient states that his right side is normal. Objective findings on that side are as follows: Patellar and Achilles are absent. Cremasteric and abdominal absent. Babinski is positive, and so are the Gordon, Chaddock, and Oppenheim. Flexion reflex on repeated testing is invariably present.

An interesting fact in connection with the reflex, and one which has not been recorded before, is its dependence upon the postural state of the limbs. The flexion of a limb is generally abolished or is, in any event, markedly and unmistakably diminished by a flexion posture in the other lower limb. It appears to be immaterial whether the other limb was placed in flexion first and the passive flexion of the toes in the limb to be tested followed it, or both these movements were carried out simultaneously. A position of extension in the other limb is a prerequisite for the appearance or full development of the reflex flexion in the affected limb. The posture of the other limb is not, however, in any way affected by the reflex flexion of the latter limb, the reflex affect being limited to the limb directly stimulated, and not spreading beyond its junction with the trunk.

The reflex, it is clear from the foregoing, is not a variation of the Babinski toe sign, which, as is well known, is generally also associated with flexion of the limb. These two reflexes are, in the first place, not coexistent, as one may be present in the absence of the other, and are, secondly, different in origin as well as in the character of the reflex movement. Whereas, the flexion reflex is, as just stated, conditioned by the postural state of the other limb, the Babinski toe sign, as well as the reflex flexion of the limb which accompanies it, are not modified by this factor; and finally, the flexion of the limb in the latter reflex is, it appears, of the nature of a reflex of defense, and, as such, is rapid and flighty in character, in contra-distinction to the flexion of the limb on passive flexion of the toes, which is both tardy in its appearance and slow and gradual in development.

Reflex flexion of the limb may be observed in an animal following transection of its spinal cord as two types of a co-ordinate movement, namely, a protective reflex and the flexion phase in reflex stepping. The first is produced by the application of a hurtful stimulus to the skin of the limb, and especially the foot, the object of the movement being then clearly to withdraw the limb and protect it from harm. The reflex under these circumstances is rapid in its evolution, and is maintained as long as the stimulus.

The second type of reflex flexion of the limb, that which represents the corresponding phase in reflex-stepping, is produced in the stimulated limb (in the non-stimulated limbs, movements of reflex-stepping frequently accompany the protective reflex in the stimulated limb), not by cutaneous and harmful stimuli, but by postural stimuli, stimuli which affect the deep afferents. The reflex is, therefore, produced by appropriate stimulation even after all the cutaneous nerves of the limb have been cut. In the spinal dog this reflex is produced with facility by lifting the animal from the ground with its spine vertical, and the limbs pendent. The passive extension of the limbs at the hips acts, then, as the stimulus, evoking the rhythmic and alternating movements of flexion and extension or reflex-stepping in both hind limbs.

The question now arises, Is the flexion reflex of the limb on passive flexion of the toes to be identified with one of these flexion reflexes in the "spinal" animal, and if so, with which? Is it a protective reflex, or, as it is known in clinical neurology, a reflex of defense, or is it the flexion phase of reflex-stepping? The former reflex, the reflex withdrawal of the limb on the application of a hurtful stimulus is—thanks to the extensive studies of the phenomenon by Babinski and his associates—well known to us. Such a reflex is essentially cutaneous in origin, and sets in when the stimulus is applied anywhere to the affected limb. It is met with especial frequency in severe but non-degenerative lesions of the pyramidal tracts, as in compression myelitis, due to neoplasms, Pott's disease, etc., but may be seen also in multiple sclerosis, posterolateral sclerosis (Friedreich's ataxia, certain types of tabes) and occasionally also in complete transverse lesions of the cord.

There are some considerations, however, which make it appear highly probable that the reflex represents, not a protective reflex, but the flexion phase in reflex-stepping. These are:

1. The reflex of defense, as rapid withdrawal of the limb, is common in normal people whenever the hurtful stimulus is applied to the plantar surface of the foot; the flexion of the limb on passive flexion of the toes is not seen in the normal state.

2. The stimulus required to evoke the latter reflex, must be, as a rule, of longer duration than that required for the reflex of defense.

3. The reflex flexion evoked is a slow, gradual movement as compared with the rapid flight of the stimulated limb in the case of the reflex of defense.

4. The stimulus producing it is one that affects the deep afferents, not the cutaneous nerves.

5. This view is, finally, favored by the fact that the reflex is abolished by a posture of flexion in the other limb. This phenomenon appears inevitable;

is, we assume, the reflex flexion in the stimulated limb to represent the flexion phase in walking, that phase in which its foot is lifted off the ground and projected forward to a new position, as this movement can occur only while the other limb is in contact with the ground, supporting the superincumbent weight of the body. A position of flexion in the other limb must necessarily block the movement of flexion in the stimulated limb.

THE RELATIONSHIP OF THE REFLEX TO THE BABINSKI TOE SIGN

In a paper which I published in 1920 under the title of the "Physiologic Significance of the Babinski Toe Response," I proposed the view that this phenomenon represents the extension phase of reflex-stepping of the "spinal" animal, which is modified in man in accordance with the evolutionary change in the form of the foot, and with it the mode of progression. In man, I pointed out, the force exerted by the foot on the ground in pushing the ground backward, and in this manner propelling the body forward, in the extension phase of the step, is exhibited in the direction of the big toe. We find, therefore, that this toe is provided with two sesamoid bones at its metatarsophalangeal articulation; also that amputation of this toe impairs walking to a very marked extent, whereas amputation of the outer metatarsus impairs this function very little. The extension or propelling phase of the step is, consequently, associated with an elevation of the big toe, the other toes at the same time undergoing flexion while holding onto the ground and supporting the body, which is rotating antro-posteriorly with the big toe as a pivot. This mode of executing the extension phase of the step is characteristic of man, and the Babinski toe response representing, in accordance with my theory, this phase of the step consists, therefore, in dorsiflexion of the big toe and plantarflexion of the other toes. And it is for this reason, it may be supposed, that the Babinski toe response is seen only in man and not in any of the lower animals. The reflex exhibits itself in lesions of the pyramidal tracts, because such lesion releases the function of progression, which, experimental evidence tends to show, resides in the lumbar enlargement of the cord, from all cortical restraint normally exerted on it. The center of progression acts in response to a stimulus to the foot, by virtue of what Marie et Foix designate l'automatisme medullaire; it responds by the extension phase, the most essential part of the step, that part in which the foot exerts pressure on the ground propelling the body forward. If the stimulus is, however, passive flexion of the toes, a movement that in itself forms a part of the flexion phase of the step, that phase in which the flexed limb with the toes bent plantarwards is advancing forward to seize the ground in a new position—a process that is carried out to a large extent passively, by atmospheric pressure, according to the Webers—then its reflex response is the movement of the limb during this phase in its entirety, reflex flexion at the hips, knee, and ankle. This reflex, constituting the less important phase of the reflex step, requires a stronger, sometimes a frequently repeated stimulus for its excitation, but, like the Babinski toe response, indicates that the center of progression in the cord through a lesion of the pyramidal tracts, is released from cortical inhibition.

SUMMARY

Observations are here recorded dealing with the reflex flexion of the limb on passive flexion of the toes, a reflex which was described by Marie et Foix, in 1910. The reflex is not seen in normal people, and is indicative of a lesion of the pyramidal tracts. The reflex, I found, is abolished or markedly diminished by a posture of flexion in the other lower limb.

The reflex may be present in the absence of a Babinski toe sign, or of a reflex of defense. It is, in accordance with my observations, seen with especial frequency when the lesion of the pyramidal tracts is irritative rather than destructive.

Interpreted physiologically, the reflex appears to represent the flexion phase of reflex-stepping in the "spinal" animal, or the progression reflex, which, according to the author, includes the Babinski toe response in man.

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DISCUSSION

Samuel D. Ingham, M. D. (1920 Wilshire Boulevard, Los Angeles)—The study of the reflexes is perennially interesting. The one discussed in this paper bears closely on the subject of action patterns in the spinal axis. In animals we can demonstrate the walking reflex, the scratch reflex, etc., but in the human subject the cerebral influences tend to inhibit the expression of independent functions of the lower centers. Many theories have been proposed in explanation of Babinski's phenomenon and the group of reflexes which are closely allied to the Babinski sign, and the theory of the defense reflex has probably been most widely accepted in explanation of the phenomena of which the Babinski sign is a part.

Dr. Meyers' interpretation is an ingenious one, and if further experience substantiates his reported observations, the reflex which he describes will have practical value in neurological diagnosis. Whether this particular reflex represents the flexion phase of walking is purely theoretical, but it is a very interesting theory.

Edward W. Twitchell (909 Hyde Street, San Francisco)—The Babinski explanation that this response to passive flexion of the toes is merely a reaction to stimulation of the deep afferent fibres carrying messages from moving joints has always seemed to me a good one. In the same way, pressure upon the metatarsals produces a like effect through the pressure sense. In one case where the response to joint motion or deep pressure lags, a brisk result comes from a touch with ice or heat. It must be determined whether passive extension does not bring about the same action which we have been accustomed to getting by passive flexion.

Arthur R. Timme, M. D. (Brockman Building, Los Angeles)—Defense never satisfactorily explained all the various reflexes of the lower extremity, especially not the Babinski and allied signs. This explanation on the basis of reflex stepping is a very ingenious one and, to my mind, difficult of refutation. There are reflexes corresponding to both phases of stepping; we see the Babinski sign typifying the extension phase and this new reflex, which might be called the Meyers' sign, typifying the flexion phase. We see also that the Babinski can be elicited in both feet at the same time just as the extension phase can occur on both sides at the same time or a person can rise on both great toes at the same time. But the flexion reflex of Meyers cannot be elicited simul-

taneously on both sides any more than one can walk with both feet off the ground at the same moment.

Harold W. Wright, M. D. (Flood Building, San Francisco)—It occurs to me that if this reflex can be present when the Babinski reflex is absent, it may on further investigation covering a larger number of cases of upper motor neurone lesion be found of considerable interest and importance as a diagnostic point in distinguishing mild lesions in the irritative stage from lesions which have produced more serious damage; thus, it may possibly turn out to have some prognostic value. It would seem that this reflex could easily be stimulated in hysteria or unconciously occur in a hypersensitive individual. On the other hand, in a true hysterical monoplegia or hemiplegia, while other defensive reflexes, and even such as stimulate the Babinski may be present, perhaps this reflex which Dr. Meyers has described would be absent. The most practical point, and this needs to be still further determined, is as to the constant presence of this reflex in organic conditions in which the lesion is not sufficient to produce the other familiar reflexes of lesions of the pyramidal system.

Thomas J. Orbison, M. D. (2007 Wilshire Boulevard, Los Angeles)—Dr. Meyers is to be congratulated upon the careful experimental work that constituted the preliminary phase and the cogent deductions and lucid description that have been exhibited in the presentation phase of this piece of research work which he has presented to this Section for consideration.

To state that the "flexion reflex" is either a defense reflex or of the nature of an hereditary pattern reaction, which is phylogenetically connected with the ability of man to walk in an upright position is, of course, far beyond the right of any of us to definitely state with authority, because of the lack of sufficient data acquired either by experiment on living subjects or cadavers.

The fact that the flexion reflex is not elicited when the other leg is not fully extended may have the significance attached to it by Dr. Meyers. If, however, the flexion is in the nature of an hereditary pattern reaction, and if that pattern reaction includes synchronous flexion, or gripping of the ground, by the lesser toes and forcible extension (pushing movement) of the great toes (as in walking), then why can it be elicited in the absence of one of the component factors of that pattern reaction, namely, pressure or forcible extension of the great toe? This question occurs to me as pertinent, and is asked not in any spirit of denying the author's deductions.

As to whether the flexion reflex is in essence a defense reflex brought out by certain degenerative lesions in the pyramidal tract distribution has not, I think, been proven or disproven.

Doctor Meyers (closing)—The subject of reflex is truly, as Dr. Ingham stated, perennially interesting, and I was glad to see so many valuable points brought out by the discussion.

With reference to Dr. Twitchell's remark that pressure on the metatarsus may also produce flexion of the limb, the reflex brought about by this maneuver occurs only when the pressure causes pain, and then, of course, we have a reflex of defense, a reflex which is not affected by the type of posture of the other limb.

A point which I wish to emphasize in connection with my interpretation of the Babinski toe response is, that of all the theories proposed for it, mine is the only one that explains why movements opposite in character are carried out in this reflex by the big toe and the outer toes, dorsiflexion by the former and plantarflexion by the latter. The theory proposed by Walshe of England that the movement of the big toe represents a minor phase of the reflex of defense does not explain it; nor does the theory of Van Woerkom, which presupposes that man has descended from climbing apes, and the movement of the big toe represents a reversion to ancestral type of function; nor does any other theory which ignores the simultaneous flexion and fanning of the other toes.

As to the practical value of the flexion reflex described in my paper, I am convinced that it is indicative of an organic lesion of the central motor neurone. It is not seen in neurasthenia, psychasthenia, or the psychoneuroses. The fact that it is seen with especial frequency in mild lesions of the central motor neurone, and sometimes in the absence of a Babinski toe sign and its allied phenomena, makes it of especial value from both the diagnostic and prognostic standpoints. I have accordingly made it a rule to examine for this reflex at every neurologic examination.

CANCER OF THE RECTUM *

By M. S. WOOLF, M. D., San Francisco

Cancer of the alimentary canal attacks those sites where accumulation of its contents occurs.

A campaign for the recognition of cancer of the rectum is very important.

Cancer of the rectum is a furtive and insidious disease which is usually diagnosed too late for successful operation.

The best figures today for recovery in cancer of the rectum in the hands of an expert surgeon is only 11 per cent of cures. Eighty-nine per cent of patients must be left to the mercy of the growth.

The majority of operations for cancer of the rectum need wise discrimination, considerable knowledge, and great patience.

Some six hundred years ago John of Arderne, said to be the first surgeon in England, wrote the following:

"Bubo is an apostume breeding within the fundament in the longation with great hardness, but with little pain. This, before his ulceration, is nothing but a hid cancer, which cannot in the beginning be known by sight of the eye, for it is hid within the fundament, and, therefore, it is called Bubo. For as an owle hideth herself in the darke places, so this griefe lurketh within in the beginning.

"But after process of time it is ulcerat and frettith and goeth out and oftentimes it frettith and ulcerith all the circumference of the fundament so that the excrements goeth out continuallie without retencion, and may never be staied unto the death, nor cured by the healpe of man. And it is thus known.

"Put your finger within the fundament of the pacient, and if ye finde within a thinge very hard, sometime on the one side, and sometime on both, which hindreth egestion, then it is Bubo.

"And the manifest signs are these. The pacient cannot abstain from stoole, for aking and priking, and that twise or thrise within an houre, and the excrementes seeme, as it were mingled with watrie blood, and it stinketh very strongly, so that all the unskilfull surgeons, and the pacient also, thinketh they have Dissenterium, when truly it is nothing so, for Dissenterium is with flux of the belly, but in Bubo there goeth forth the Bubo, but are reteyned within the fundament straightly so that ye may feele them with your finger and drawe them out, and in this case glisters availeth much.

"And when they be nigh their ende, they beginne to have lyngering fevers, and to loose their appetite, they forsake all and covet wine, they eate little and covet everie day lesse and lesse, they sleepe but little and unquietly, they are heavie as well in mind as in body, and as they waxe weaker and weaker, they covet their bedde and, above all things, to drink water, neverthelesse they can speake and move themselves to the last breath."

This is a description of cancer of the rectum,

* Read before the California State Medical Association Meeting, May, 1924.

which might well represent the clinical findings of a surgeon of the present day. It is a very pessimistic statement of an observing man. Those of us who see cancer of the rectum treated with all the added advantage of an experience accumulated during the six hundred years following Arderne's day feel profoundly anxious about this disease. We have, however, what others had not—a confidence in even our desperate conditions because we believe that the discovery of cancer is imminent. The amazing scientific victories of the last century, and especially of recent years, are proof that masses of investigators thrown into the balance against disease are more and more effective in lifting the weight which has burdened us so long.

Until the cause of cancer is discovered, or, at least, an effective treatment suggested, it is important to have now a clear understanding of those features which will be helpful to the patient suffering from cancer of the rectum.

Cancer of the alimentary canal attacks those sites where accumulation of its contents occurs. Therefore, we find it more commonly in the mouth, stomach, caecum, flexures of the colon, sigmoid, and rectum. When the disease occurs in the intervening portions of the canal, one might suspect some narrowing from previous conditions—congenital, inflammatory, or nervous. The result of this stasis is that chemical, biochemical, or mechanical irritation occurs, which may well be causative factors in the production of malignant growth. Stagnation, then, seems to be conducive, at least, to the production of cancer. Where the bowel is propulsive only and the feces semi-fluid, as in the small intestine, we seldom have the disease.

There are parts of the bowel where food or feces are retained for a while and then transmitted further. This occurs in the stomach and rectum. Formerly, it was supposed that neutralization of the gastric acidity in the duodenum caused the pylorus to open. Macleod has shown this is not entirely the case, but that the pylorus opens by co-operative peristalsis with the pyloric antrum. It is thus conceivable that, where such co-operation is interfered with by a spastic sphincter, or by lack of tone in the muscles above, chemical changes may be produced in the stagnating contents. As far as the rectum is concerned, we have, not infrequently, constipation as a prominent factor in the history of patients suffering from cancer. Applying the anatomy and physiology a little more exactly to the rectal region, we find that the rectum is mainly efficiently attached to the sacrum, and nowhere has a perfect mesentery. It is guarded by at least one very strong sphincter. It is, therefore, likely to be a reservoir and, according to the condition of the sphincter, a more or less temporary one greatly under the control of habit. Normally, the only sensation the rectum conveys is that of distension, which should occur once in twenty-four hours. Should there be pain or, indeed, any symptom other than that of distension, there is an abnormality of bowel form or function which may not be due to disease of the rectum, but certainly involves it. From what has been said, we are not surprised that cancer occurs frequently in this region where the bowel is fixed and by nature retentive, depending on the amount of retention by the condition of the sphincters.

In thirty cases of cancer of the rectum at the University of California Hospital, there were eighteen males and twelve females—three males to two females. The youngest was 24 years of age, and the oldest 87. Two patients were under 30, five under 40, and eleven under 50. More than half, sixteen, were between the ages of 50 and 70, and the decade with the greatest number of cases was 60 to 70. Two were between 70 and 80 years of age, and one over 80.

The majority were married. Luetic history was not significant in connection with its etiology. In only two was an hereditary cause suggested.

Patients with cancer of the rectum come for advice complaining of pain only, bleeding only or marked constipation only in almost equal numbers. Many have a combination of these signs. Constipation being a universal complaint is only significant as a possible sign of cancer when it is very marked, increasing notably, or suddenly superimposed on a former regularity of the bowels. It may not mean organic pathology. Pain may also not mean definite pathology in the alimentary tract, as, for example, the pain in tabes, bladder pain, and the pain due to disease of the bony parts of the pelvis. Bleeding is, then, the only sign that definitely refers us to the bowel, and even here it may come from high up in the tract. Bleeding means damage or ulceration to the wall of the bowel somewhere.

The constipation accompanying this disease may be sudden and almost absolute. There is the stricture, which has gone on to the point of arresting scybala which the normal movements cannot dislodge. Or, it is due to the sudden invagination of the bowel at the site of growth. Alternating with diarrhea, it shows also a more chronic lesion. Such histories of constipation may occur before other symptoms, without blood or mucus or pain. There is no ulceration or damage of the mucous membrane. There is no tenesmus.

Pain, especially continuous pain, felt in the rectum is a pelvic phenomenon and in cancer means that the growth has either extended beyond the lumen or has caused inflammatory changes outside. Usually, when the growth has extended so far, there is not only pain but tenesmus due to the bowel endeavoring to rid itself of its contents. It is significant, bearing this in mind, that, of the nine patients reporting primarily with pain, local removal could be attempted in only three. It is mainly a terminal symptom.

Although bleeding accompanies the disease often as a late phenomenon, it may be quite an early sign. It may be so early that it signifies only congestion of the mucous membrane, which bleeds slightly when the feces pass over it. Later, it means ulceration of considerable extent, either capillary or from the opening of a vessel in the base of the ulcer. This ulceration is a distinct advance from the beginning of the disease, which must commence in the mucous membrane, probably at the base of the crypts. When ulceration occurs, there will be

quickly an exudation from the surface, perhaps a little soreness, purulent discharge, and bleeding. At first, the bleeding is slight, mixed with or coating the feces with streaks, and dark from retentive changes. It accompanies defecation only. Later on, the bleeding is more severe, the blood brighter, often occurring apart from defecation. The bleeding in our series has not been such as materially to diminish the red cell count. At least 50 per cent of cancers of the rectum have bleeding at some time or other in the course of the illness.

A word on tenesmus. It is a symptom of some foreign substance, body or load in the rectum. It brings the patient to us as the distressing element in about half the number of times that bleeding, pain, and constipation do. It may be more troublesome than real pain on account of its continually disturbing the patient. Yet it is not so severe in cancer as the tenesmus due to acute proctitis, especially of the dysenteric type, which may rapidly wear the patient out. Even so, it is exhausting enough owing to the constant stimulation of the intrinsic muscles, and consequent disturbance of the patient.

The average duration of symptoms before the patient reported at the hospital was about one year. One had symptoms as long as four years, one as short a time as two weeks. Frequently, we see him after he has been treated by others, and often the diagnosis has been evaded. We would like to have the case before there has been loss of weight, since, although statistics are not complete in this respect, there is evidence that, without loss of weight and without anemia, the patient has a fair chance of having the growth excised.

As to the position of the growth, we found that by sigmoidoscope or digital examination 25 per cent of the growths were at the recto-sigmoid junction, 65 per cent were within a finger's reach (about two inches from the anal orifice), and 10 per cent occurred lower than the sigmoid but higher than could be reached digitally. Some 50 per cent were ulcerated. The claim that the recto-sigmoid junction is the part most frequently affected is undoubtedly correct.

The question of position is important in the recognition of the disease. Digital examination, to which some examiners confine themselves, cannot touch a growth higher up than 9 cms. from the anocutaneous margin. There are still about 5 cms. to the recto-sigmoid junction. It is possible to reach another 2 cms. by making the patient strain, especially if he is in the squatting position. Even then one cannot say that one feels what one touches at the uppermost limit. One cannot examine satisfactorily the upper 5 cm. of the rectum digitally. A small nodule of cancer, a diminutive polyp or papilloma certainly would be missed. Digital examination, however, should be done in all cases where possible, and especially before instrumentation, since more than once an ulcer perforation has been reported following rough usage of a sigmoidoscope. Peritonitis has then followed.

We are seeing in our surgical out-patient department 250 new rectal cases a year. In these a sigmoidoscopic examination is always done where the local condition permits. Such a routine will minimize oversights, and it is necessary if one wishes conscientiously to eliminate disease of the lower bowel. We are getting gradually to recognize the value of this means of investigation. One must not wait for the appearance of considerable blood, pus, and pain before taking this important proof of the presence or absence of rectal disease.

Rectal cancer may spread in the following ways: By contiguity, by vascular channels, and by lymphatic channels. It starts in some part of the mucous membrane. It is adenoid, strongly resembling the adenoid cells of the surface epithelium and that of the crypts. It is probably nodular in all cases at first, and apparently is not preceded by a chronic ulcer as occurs at times in the stomach. According as it grows within the bowel wall or in lymphatic channels, we have the predominating varieties—that of non-ulcerating stricture and that of ulceration with a tendency to lymphatic gland involvement. In the one case, then, it spreads by contiguity in the tissues and, in the second by a more open path, namely, by lymphatic channels. In this case it proceeds from one point or focus, ulcerating the surface at that point and affecting the lymph nodes opposite at the peritoneal attachment.

Harrison Cripps believes cancer cells may originate in the cancerous area and enter the blood stream in the minute vessels of the portal system, and by this means explains the rapid dissemination of the disease to the liver in certain cases. A striking lymphatic chain is not always present with exceedingly large deposits of cancer in the liver which have been transplanted from the rectum.

Lenthal Cheatle and Percival Cole, on the other hand, consider that cancer of the rectum spreads mainly within the bowel wall, and for that reason the former considers that "wide removal of the bowel is not essential to recovery in most cases." The glands removed with the rectum in our hospital very rarely show cancerous involvement. They *do* show inflammatory changes and are frequently much enlarged. It may well be that our so-called late cases are more likely to be cured than has been hitherto thought. Direct extension to other pelvic or abdominal organs contra-indicates operation, but lymphatic gland enlargement not necessarily. This, as Lenthal Cheatle says, "has a bearing on operations for really sick patients where extensive operations may not be advisable."

A campaign for the recognition of cancer of the rectum is very important. On account of its deadly nature, it is even more important to recognize early symptoms than cancer of the breast; first, because of the difficulty of recognizing early signs; secondly, on account of its being situated in a part which is technically difficult to operate on; thirdly, because of the septic nature of the area.

Our attention is, therefore, drawn to the earliest appreciative suggestions of its presence.

When the disease is situated high up in the rectum, there may be an increase of mucus with a very slight bloody tinge of this mucus. There can be, in general, no earlier signs of cancer in the sigmoid,

which is a silent portion of the intestine, though we have seen that complete obstruction may be the first sign in rare cases; then, early morning diarrhea, signifying an overnight accumulation of feces at the irritated or slightly swollen mucous membrane; further, spurious diarrhea, an evacuation frequently of small amounts of material due to irritation of an early growth; lastly, increasing constipation, sudden constipation arising suddenly after old established habits of regularity. Other signs and symptoms of cancer of the rectum bring the patient to us when the diagnosis is not uncertain. They are tenesmus, continuous pain, bleeding, especially bleeding apart from defecation and bleeding which is intimately admixed with the stool producing dark blood with an offensive odor often accompanied by pus.

Treatment naturally divides itself into palliative and radical, depending, the former on the great extent of the growth or on the weakness of the patient, and the latter on the possibility of removing the whole growth; for it may be laid down that operation of a radical nature should not be experimental, but should have a good prospect of eradicating the cancer. Colostomy relieves the patient considerably for many weeks in the cases where removal cannot be undertaken. Radium therapy may be undertaken in addition; in fact, Kelly and Ward declare that radium, if properly applied, holds out the best hope for such patients, either with or without radical operation or of itself alone. They report a cure of 11 per cent of two hundred patients one to ten years after treatment, which is much above our or any other average. We can report two patients living three to five years, after local resection in one case, and in the other after abdominal perineal resection.

Radical treatment resolves itself into local excision of the growth, perineal resection of the rectum with or without colostomy and abdomino-perineal resection with a permanent colostomy. Only where the single perineal operation preserves the sphincter should it be done. The incontinence of an inferior opening of the bowel is intolerable compared with the inconvenience of an inguinal colostomy. The selection of any particular operation depends on the surgeon, but the maxim for surgery of cancer in general obtains here, namely: widest possible resection of all suspected tissues.

CONCLUSIONS

1. Cancer of the rectum is a furtive and insidious disease which is usually diagnosed too late for successful operation.

2. The best figures today for recovery in cancer of the rectum in the hands of an expert surgeon is only 11 per cent of cures. Eighty-nine per cent of patients must be left to the mercy of the growth.

3. Early symptoms and signs must be impressed upon the public. They are:

(a) Blood tinged mucus with stool.
(b) Discomfort in the rectum.
(c) Early morning diarrhea.
(d) Constipation increasing or superimposed on regularity.
(e) Spurious diarrhea.

4. Enlarged pelvic glands are not necessarily a contra-indication to a radical operation.

240 Stockton Street.

DISCUSSION

W. L. Huggins, M. D. (Pacific Mutual Building, Los Angeles)—Dr. Woolf is to be complimented for his comprehensive paper and showing us that much may be done for this dread condition, if we will only make earlier and more thorough investigation. There has been too much pessimism regarding cancer in general, and especially about cancer of the large bowel; and too little searching for the incipient lesion.

We have probably had our share of good and bad results. Have one case of resection well and at work at the end of ten years. Another of three years' standing in which a colostomy was performed for obstruction, and later the growth resected by the so-called "aseptic technique." A recent inoperable case was treated by deep x-ray therapy and the local application of Percy heat. This man is 70 years old and has been made fairly comfortable, but is by no means cured. I wish to join the author in his plea for more attention to the "silent portion of the intestine," and more relief for this class of sufferers.

Thomas O. Burger, M. D. (First National Bank Building)—Statistics show that the end-results are not as satisfactory in the surgery of rectal cancer as they should be, when we consider the statements of pathologists that lymphatic metastases are infrequent in early stages, and also that operative findings show little extension of the growth into adjacent areas.

When a colostomy is done, the entire abdomen should be gone over to discover if any growths are to be found. The sigmoid particularly should be carefully examined and if no involvement is found, then we can hope that thorough eradication of all cancerous tissue can be obtained.

I do not favor the Kraske operation as ordinarily done, but use the cautery to surround the anal margin at some distance, making a circular incision all the way around and continuing as high as is desirable.

The core removed includes 2-4 inches of the lower rectum, with the cancer included. The heat destroys any adjacent cancer cells. The space left is rather formidable looking, but will in time granulate in, and all I have done has been quite satisfactory. The cavity is packed with alcohol gauze and later with iodoform or other gauze in lessening amounts.

If the cancer is more than three inches above the anal canal or in the sigmoid, I like the abdominal approach and technique of Coffey.

I feel sure that the above procedures are capable of giving a lower mortality record than that shown by statistics of the recent past.

C. L. Callander, M. D. (240 Stockton Street, San Francisco)—Dr. Woolf is to be complimented on his most excellent paper, not only from its clinical accuracy and orderly arrangement, but as well because of his delightfully phrased rhetoric. Our medical literature would be not only more comprehensible, but much more interesting were there prevalent here such a style, so much more common among English surgeons. We are interested in his preliminary remarks as to the importance of an accurate anatomic conception of the region involved. Personally, it might be of interest to call attention to a particular structure in this region, well known to those genito-urinary surgeons who prefer the perineal approaches to the pelvis, but comparatively little known among general surgeons. The structure referred to is a dense duplication of fascia, triangular in shape, between the bladder and the rectum with its base superior and on a level with the most inferior limit of the pelvic peritoneum, and its apex on the superior fascia of the urogenital diaphragm. Its lateral borders extend to the mesial borders of the levator ani

muscles. This is the fascia of Denonnvilliers. Outlined thus, this fascia forms a frontal partition between the genito-urinary tract in front, the prostate in particular, and the rectum behind. In this strategic location it offers an effective barricade against extension forward of malignancy of the rectum, into the genito-urinary tract, which, if involved, must be involved late in the course of the disease. This reciprocal relation obtains equally in malignancy of the prostate, so that involvement of the rectum is a fairly late manifestation. This structure is the most important factor in delimiting such malignancy. Dr. Woolf has stressed the importance of the early recognition of the manifestations of the cancer of the rectum; and with this conception of this obstructing fascia, early radical procedure offers some hope for cure.

John Homer Woolsey, M. D. (135 Stockton Street, San Francisco)—This excellent paper should be read and applied by the entire medical profession. The condition of cancer of the rectum shows advance over the years in but one direction—method of treatment. Earlier diagnosis on the part of the medical profession and education of the public regarding the symptoms of the disease, should be one of our strongest endeavors in the coming years.

A rectal examination should be as much a part of the modern routine physical examination as the auscultation of the heart sounds. Often foolish sentiments of modesty prevent a thorough rectal examination, and the patient is treated for hemorrhoid, fissure in ano, and what not. The examination should first be digital, and then for the reasons Dr. Woolf has well stated, a proctoscope not too large, but sufficient to permit a vision of the recto sigmoid junction, which is involved in approximately 60 per cent of cancer of the rectum, should be employed for direct examination.

In addition to the earliest symptoms of this disease, such as passage of mucous, blood-stained feces and unsatisfactory stool, the frequent occurrence of hemorrhoids should be emphasized. The cause of hemorrhoids should always be determined before any local treatment is instituted, for these varices are frequently a physical sign of a more serious body ailment. Especially is this so when they appear in the cancer age, and persist. Fully 75 per cent of the rectal carcinomata upon which I have operated were treated primarily, for three to fifteen months for hemorrhoids, and, in some instances, were on the operating-table under the anesthetic before the cause was determined.

The treatment is based upon the pathology, and herein lies a great possibility, for, as a rule, cancer of the rectum is relatively slow in its spread. The range of operability has increased considerably in the past ten years. It has been my experience in five patients, all of whom are alive, and completely well, post-operatively after three years in one instance, one and one-half years in two cases, and one year in two others, respectively, that they have been initially advised by other physicians that their condition was hopeless and palliative measures only could be employed.

Since the metastasis by the lymphatics and by direct extension are our ruling factors, it is of interest that Miles states that at least in the ampula of the rectum the fascial layer is not involved until three-fourths of the transverse diameter is covered, and this is usually at the end of one year; that Handley claims excision should include four inches above the tumor; that Fagge includes two inches lower than the apparent growth for excision; and that Mayo advises six inches of sound bowel above, and two below.

The best treatment with our present knowledge should be surgical. Radium and x-ray are only palliative. A one-year cure has no value and three years, formerly considered the goal as a complete cure, has now been discarded, for after eleven years, in one instance, a recurrence first appeared. Therefore, the number of so-called cures reported is quite variable, but, at least for a few years' help, well over 11 per cent, as stated by Dr. Woolf. Such clinics as Miles report over 50 per cent living and well after six years, and Mayo 37.8 per cent living after three years or more, and 35.8 per cent after five years.

Doctor Woolf (closing)—The gentlemen who have been so good as to discuss this problem of cancer of the rectum have confirmed just those necessities of the situation which I had in mind. We need our acutest diagnostic sense if we hope to reveal early the presence of malignancy in the rectum. For success in the treatment of the disease after its discovery, we will have valuable help in a good anatomical knowledge of the parts in which we operate. and our technique must include careful attention to the details observed in the best surgery of other organs. The majority of operations for cancer of the rectum need wise discrimination, considerable knowledge, and great patience.

SURVEY OF NON-TUBERCULAR CHEST LESIONS*

By HENRY SNURE, M. D., Los Angeles

In considering the non-tubercular infections of the lungs we have the following: The influenza and pertussis bacilli; the pyogenic bacteria such as staphylococci and streptococci, which cause abscesses, bronchiectasis and bronchitis; pneumobacilli and pneumococci, chiefly the cause of pneumonias; the anaerobic bacteria, causing gangrene. Infrequent infections such as lues, actinomycosis and echinococcus.

The most common condition to be confused with tuberculosis is the so-called chronic indurative pneumonia following an ordinary attack of pneumonia which has apparently clinically recovered and first gives symptoms several months after the primary infection. The cases of indurative pneumonia usually have slight increase of temperature, cough, expectoration and sometimes blood-streaked sputum. The distinguishing feature shown by x-ray is the involvement of lower lobes chiefly. Tuberculosis involves the lower lobes in less than 10 per cent of the tubercular cases. The changes in the lower lobes are varied. It may be a thin, even shadow, or a dense shadow; may have multiple small dilatations which in turn become gangrenous, and abscess formation takes place. Wessler states that the fetid odor of the breath and sputum appears regularly on the twelfth to the fourteenth day after aspiration of anaerobic bacteria causing gangrene. Ewing says that an indurative pneumonia can become so fibrous in character that tissue section shows none of the usual lung elements and cannot be recognized as such. Pleurisy is another common condition following pneumonia. No definite percentage can be given as to the number of cases of pleurisy that are non-tubercular. Figures vary from 10 to 50 per cent. Dr. Brem injected guinea pigs in two hundred consecutive cases of pleurisy with about 70 per cent positive for tuberculosis. Malignant tumors of the chest are one of the common causes of non-TB effusions. Whooping-cough is another infection that has to be watched over long periods as changes take place slowly. Why some of these cases of whooping-cough improve after

* Read before the Section on Radiology at the Fifty-third Annual Session of the California Medical Association, Los Angeles, 1924.

x-ray treatment and others do not cannot be demonstrated on the film. Following the flu epidemic quite a number of streptococcic pneumonias were observed which showed mottling on the film resembling the changes in tuberculosis, but these shadows, unlike TB, cleared up several months afterward. The changes in lung tissue due to lues, as a rule, disappear quickly after specific treatment. There are no typical changes in actinomycocis. However, this infection extends early through one chest wall, and the organisms are found in the sinuses. Echinococcus cysts are usually large circular sharply defined shadows and more dense than tumors, from which they have to be differentiated. Wessler and Jackes, in classifying lung abscesses according to cause, find 21 per cent due to aspiration following tonsilectomy. In non-aspiration cases chronic pneumonia caused 21 per cent and so-called grip or flu 21 per cent. These three conditions accounted for 63 per cent of the cases. The remaining 37 per cent were caused by some thirteen different conditions. They also state that out of one hundred consecutive cases of lung abscesses where post mortems were made, only twelve were diagnosed clinically, fifty by x-ray examination. (About four times as many were found by x-ray as by clinical methods, which is, of course, encouraging to the roentgenologist.) A large acute abscess may form in forty-eight hours, whereas those of slow onset are usually the smallest. An abscess can entirely disappear in so short a time as three weeks. The size of the area of pneumonitis surrounding the abscess has no special significance. The aspiration type of abscess is found chiefly in the upper lobes. About one-third of the cases of lung abscesses get well, and usually within three months after onset.

1501 South Figueroa Street.

The Effect of Intravenous Injections of Calcium Chlorid on the Kidney—During the last two years, in the Mayo Clinic, patients with obstructive jaundice requiring operation have been given intravenous injections of calcium chlorid pre-operatively in order to reduce their coagulation time, and to assist in the prevention of bleeding. Five cubic centimeters of a 10 per cent aqueous solution of calcium chlorid have been given daily for three days, and the results—the hastening of blood coagulation, as evidenced by a lowering of blood coagulation time, and the absence of post-operative hemorrhage in jaundiced patients—have been striking. John P. Bowler and Waltman Walters, Rochester (Journ. A. M. A. Oct. 18, 1924), report now on their experimental work done on dogs on whom an artificial obstructive jaundice was produced by ligating the common bile duct under anesthesia and with aseptic technic. The effect of intravenous injections of calcium chlorid in various amounts on the kidney was studied, the kidneys being removed at the necropsy. With the exception of the usual changes in the kidneys accompanying obstructive jaundice, no other structural pathologic changes were found. Nor was it possible to produce deposits of calcium in the kidneys by doses ranging from 8 mg. for each kilogram of body weight to the lethal dose of 280 mg. for each kilogram of body weight in normal dogs, and of 380 mg. for each kilogram of body weight in jaundiced dogs. It was not possible to demonstrate a deleterious effect on the kidneys of any of these dogs, either clinically or pathologically.

Medical judgment, skill, foresight, and even experience, are beads unstrung, unless all are applied with infinite tact.—Sir John Collie (The Practitioner).

DE-ETHERIZATION BY CARBON DIOXID INHALATION*

REPORT OF CASES FROM ST. LUKE'S HOSPITAL, SAN FRANCISCO

By ELIZABETH B. CHRISTIANSEN, M. D.,
San Francisco

De-etherization by carbon dioxid inhalations, as proposed by Henderson and Haggard, is an important factor in preventing distressing after-effects of ether anesthesia.

When properly administered no ill effects have been produced.

It is inexpensive; a tank costing $5 will last for forty to fifty cases, and it requires no complicated apparatus.

As early as 1876 the effects of increased percentage of carbon dioxid in the inspired air was pointed out by Friedlander and Herter. A few years later Zuntz was able to demonstrate that a concentration of carbon dioxid of about 3 per cent causes noticeably hyperpnea, from 8 per cent to 15 per cent there is distinct dyspnea, but beyond this point further concentration, instead of augmenting respirations, decreases them; and the animal dies at a concentration of 40 per cent to 50 per cent. Further research concerning the influence of carbon dioxid on the respiratory mechanism has been carried on by Traube, Haldane, Rosenthal and others.

About three years ago Yandell Henderson and Haggard proposed the use of carbon dioxid for improving the condition of patients suffering from the after-effects of ether anesthesia. Extensive research was undertaken in order to discover whether the use of carbon dioxid in such patients would be of outstanding benefit, and whether it was capable of producing any harm. One of the results of their work is the method of de-etherization by means of carbon dioxid inhalations described by J. C. White, in the September, 1923, issue of the Archives of Surgery. Quoting this article:

"The physiologic principles which suggested this method are: (1) that ether, being a volatile substance carried by the blood, will be eliminated chiefly through the lungs; (2) that the rate of its elimination must, therefore, vary directly with the volume of pulmonary ventilation. Carbon dioxid being the natural stimulus to the respiratory center, its addition in small quantities to the inspired air seemed to them the logical method of accomplishing this purpose."

Laboratory work on the respiration, the blood gases, etc., was carried on, and quantitative analyses were made on the ether tension in the venous pulmonary air and the minute volume of respiration, to determine the exact rate of de-etherization.

By the formula worked out by Haggard the ether tension found in the alveolar air in equilibrium with the venous blood is 1-15.2.

Of special interest is the recovery curve: "During the first few minutes after administration of ether is stopped, elimination is extremely rapid; so that the normal patient puts out one-half of the total ether in his body in the first thirty minutes. The curve then flattens out so that it takes from one to two hours to ventilate out half of the remainder,

* Presented to the Pacific Coast Association of Anesthetists at the joint meeting held with the Section on Anesthesiology of the C. M. A., Los Angeles, May, 1924.

and from one to two days for the last traces to disappear in the blood.

"On comparing the clinical depth of anesthesia with the ether analyses, a perfectly constant relationship is seen running through the entire series; from 1.0 to 1.5 gm. of ether per liter of venous blood gives full surgical anesthesia; 0.7 to 1.0, light anesthesia; with from 0.5 to 0.6, the reflexes are active and the patient often vomits; with from 0.3 to 0.4, the patient opens his eyes; with 0.2 he is fully conscious.

"The chief subjective discomfort comes with between 0.4 and 0.2 gm. of ether, although an occasional patient may continue to feel nauseated and overwhelmed by the ether until the last traces leave the system.

"During operation, the average patient under a deep anesthesia breathes about six to eight liters of air per minute. . . . Treated with carbon dioxid the pulmonary ventilation is raised from twenty-five to thirty-five liters per minute."

It has been shown by Peabody that the pulmonary ventilation of the average individual is nearly doubled when the carbon dioxid of the inspired air reaches 5 per cent, and is quadrupled, or more, when it reaches 6 per cent.

Henderson and Haggard further report that with the rapid production of hyperpnea with an increase of the minute volume of respiration from thirty to seventy liters a minute, their patients regained consciousness in from fifteen to twenty-five minutes.

"The blood pressure which has fallen from 5 to 15 mm. below normal, and which control observations had shown would continue to fall still further, was rapidly restored to normal level." They also noticed "that the patients returned to the ward with color and circulation much improved, that the tendency to nausea and vomiting was much reduced, and that none developed gas pains."

As for the mechanism of ether elimination, Haggard has shown that "over 90 per cent of the ether inhaled by a dog can be quantitatively recovered in the expired air. Ether at body temperature is in the gaseous state. That it is present in the blood as a simple solution and subject to the physical laws for gases dissolved in liquids can be proved by a simple experiment. A constant stream of air is blown through a five-liter bottle containing varying concentrations of ether in water, similar to those found clinically at the end of anesthesia, at a normal body temperature. By analyzing the amount of ether remaining in solution at definite intervals of time in a series of experiments with different degree of ventilation and initial ether tension, curves were obtained which reproduced any form of the de-etherization curve found in the actual patients. . . . These experiments are important because, from the exact similarity of their curves with those of actual patients, they show that the de-etherization is a purely physical process and a very simple one at that."

The anesthetic department of St. Luke's Hospital is greatly indebted to Alanson Weeks, who called our attention to the work of Henderson and Haggard, and urged us to try it out, rendering us every possible assistance.

The fifty cases observed by Leavitt and myself include hysterectomies, cholecystectomies, herniotomies, gastro-enterostomies, appendectomies, etc. Since conditions of excessively high blood pressure, severe cardiac complications, operations on chest and respiratory passages, and marked acidosis are considered as contra-indications to carbon dioxid de-etherization, because of the respiratory strain of excessive pulmonary ventilation, such cases were excluded.

Of the fifty patients treated with carbon dioxid, twenty-nine were female, thirty-one male; the ages varied from 4 years to 62 years. The length of anesthesia was from twenty-three minutes to two hours and thirty-five minutes, and the degree was in the majority of cases deep, only four being light. The respiratory rate during the administration of carbon dioxid varied from twenty to forty per minute. As a rule the increase in volume was noticed within half a minute, the respiration in each case becoming deep and regular. There was in most cases a slight increase in pulse rate, but in no case did this exceed twelve per minute. The color in all except two cases was normal. At close of the administration of carbon dioxid twenty-three were fully awake; twenty-one would answer when called by name; six did not answer, but the reflexes were active. Of undesirable effects during the de-etherization, six showed a dilatation of the pupils at the start. This, however, quickly disappeared when the mask was momentarily removed. Two remained slightly cyanosed. There have been no complaints of discomfort from the breathing of carbon dioxid.

Three of our cases had considerable nausea, vomiting and straining. Two cases, both explorative laparotomies, suffered from gas pains; nine vomited once or twice; unaccompanied by straining or great amount of nausea; thirteen complained of nausea only, lasting for two to three hours, and twenty-three had no after-effects whatever. Five of these patients volunteered the information that they had had very severe after-effects from previous etherizations, and were surprised at the difference when de-etherized with carbon dioxid.

Our apparatus is of the simplest kind; a carbon dioxid tank on a portable stand, to which is attached a wash bottle. The flow of gas is controlled by means of a gauge, and after passing through the water in the wash bottle it reaches the patient through an ordinary gas tube and mask on which the valve is kept widely open.

The average time for the patient to wake up sufficiently to open his eyes, when called by name, is given by White as one hour and fifteen minutes. We find that the majority of patients reach that stage well within thirty minutes. As White's control observations were made in the Massachusetts General Hospital, the difference calls attention to the fact that a deeper degree of etherization is usual than with us, a feature of considerable bearing on this work since, quoting White in his closing paragraph, one of the two chief factors governing the rate of recovery is "the amount of ether in the

body at the end of anesthesia." Our object of de-etherization is therefore not so much to awaken the patient as to eliminate the distressing after-effects of etherization.

In a hospital where the anesthetist is scheduled for a succession of cases it is often difficult to give the desired length of time for de-etherization, both on account of the anesthetist and the operating room. I feel, therefore, that we might have obtained more striking results, if the carbon dioxid treatment could have been kept up a little longer in several of the cases.

St. Luke's Hospital.

A STATISTICAL STUDY OF EMPYEMA IN CHILDREN UNDER 13 YEARS DURING THE PAST TEN YEARS AT THE LOS ANGELES GENERAL HOSPITAL*

By ALFRED J. SCOTT, JR., M. D., Los Angeles

The object of this study was to determine if possible how many cases of empyema in children enter this 1200-bed hospital with more than 10 per cent of the beds provided for children.

Our problem was: How many cases were there? What was done for them? What were the results? What was the class of patients, racially? Is empyema harder on children under 5 years than older? What type of operation gives the best results under 5 years and over 5 years?

We did not try to compile the records of the pneumonias due to lack of sufficient help, and even with the empyemas it was difficult to segregate children from adults as every record had to be examined to determine the age.

There were only twenty-six cases in children in the nine and one-half years from January 1, 1913, to June 1, 1923: Males, 21; females, 5.

Age Incidence—Under 6 months, 1; 6 to 12 months inclusive, 1; 13 to 24 months, 1; 4 to 5 years, 9; 6 to 7 years, 4; 8 to 12 years, 8; 13 years, 2; total 26.

Age Division—Under 5 years, 12; 5½ to 13 years, 14.

Nationality—American, 14; Mexican, 9; Italian, 3.

Type of Pneumonia Preceding the Empyema—Lobar, 15; broncho, 6; trauma, 1; unknown, 4.

Location in Chest—Right side, 12; left side, 16.

Length of Time in the Hospital—One patient lived only one day, and another stayed thirteen months because of an unhealed sinus; of the remaining twenty-four patients, one stayed eleven days, two 120 days, and the average for the twenty-four was twenty-one days.

The average length of time after the patient entered the hospital until a diagnosis of empyema was made was eight days.

The Predominating Symptoms Were—Pain, 11 times; temperature of septic type, 18 times; dyspnœa, 16 times, and cough, 18 times.

Sleep Was Noted As—Poor, 5 times; fair, 4 times, and good, 3 times.

Loss of Weight Was Noted—Eight times.

Urinalysis Showed—Albumen and casts, 3 times, and normal urine, 12 times.

X-rays were not made in eleven patients, and a number of times in fifteen others. Where done, the average recorded statement was: Opacity in the region of the fluid; opacity if the lungs were compressed; and if the amount of the fluid was large, cardiac displacement was present.

Physical examination notes may be summarized as follows: Dullness to flatness; distant breath sounds over the dull areas; distant voice sounds over the dull areas; few crepitant rales above the dull areas; exaggerated breathing on the opposite side; heart displaced by fluid and where the condition has been present for some time; bulging of the chest over the affected areas; smoothing out of intercostal muscles and lagging of the chest over the area of the fluid.

Type of Operation—Aspiration, 6 cases; thoracocentesis, 7 cases; rib resection, 8 cases; no operation, 5 cases; a combination of aspiration and thoracocentesis, 3 cases; aspiration and resection, 2 cases.

The Final Results—Died, 10 cases; incomplete records and patient left hospital, 2 cases; left hospital improved, 12 cases; left hospital unimproved, 2 cases. Of these that died, seven were under 5 years, three 5½ years and over.

Relation of the type of operation and age incidence as to the end results:

Under 5 years:

Type operation	No. cases	Recovered	Died
Aspiration	2	1	1
Thoracocentesis	2	—	2
Resection	3	2	1
None done (left hosp. unimp.)	5	2	3
Total	12	5	7

Cases over 5 years:

Type operation	No. cases	Recovered	Died
Aspiration	4	3	1
Resection	5	5	—
Thoracocentesis	5	3	2
Total	14	11	3

Comparing these figures with those under 5 years shows again that resection is rather more favorable in its prognosis.

The type of organisms found in the pus removed from the chest showed:

Non-hemolytic streptococcus	1
Non-hemolytic streptococcus and pneumococcus	2
Pneumococcus, alone	5
Gram positive, extracellular coccus	1
Gram positive, bacillus and pneumococcus	2
Staphylococcus albus and pneumococcus	1
Staphylococcus albus, gram positive, bacillus and pneumococcus	1
Staphylococcus albus and micrococcus tetragenous	1
Tubercle bacillus	1
No cultures	11

The cases that died had the following organisms:

Pneumococcus, alone	1
Pneumococcus with gram positive, bacillus	1
Short-chained streptococcus and pneumococcus	1

SUMMARY AND CONCLUSIONS

From the number of case histories in this series we cannot draw any very definite conclusions. The laboratory work has not been complete enough except in a few instances. There has been marked improvement in history writing and examinations, x-rays, etc., since 1921. Therefore the results of this study show:

1. Rib resection in this series has been done

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over a longer period of time. The clinical results seem to have been more satisfactory than with any other type of operation.

2. Time between operation and discharging the patient was three months (excluding one case).

3. The left side of the chest was most frequently involved (sixteen cases).

4. In this small series the race incidence was about equal in the ability to combat the disease.

5. Children over 5 years gave the best prognosis in this series.

6. The pneumococcus was present in the cultures of all the fatal cases, either alone or in a mixed infection, excluding the one case of tuberculosis.

7. It seems more logical where there is pus in a chest to make a hole large enough to get good drainage. If a small calibered tube was used, some pus must be retained, even when broken up by chemical solutions, which may make a good culture medium for bacteria.

8. If irrigations are valuable, why not use a large enough opening, large enough tubes and wash out less frequently?

9. The constant manipulations of the young infant and child to irrigate, upsets the delicate nervous system and undoubtedly interferes with convalescence.

10. Allow the infant or child to sleep at night and build up its resistance. This is of more value than mechanical interference from the outside.

11. If hospital records show such results, what must the results be in private practice on the outside of an institution, where accurate case records and checking up are not done?

1501 South Grand Avenue.

THE TREATMENT OF POST-INFLUENZAL ASTHMATIC BRONCHITIS*

By SAMUEL H. HURWITZ, M. D., San Francisco
(From the Medical Department, Mount Zion Hospital, and the University of California Medical School, San Francisco)

Post-influenzal bronchitis with or without symptoms of bronchospasm is a frequent sequel of epidemic influenza.

The condition results from secondary infection of a congested and edematous bronchial mucous membrane with a streptococcal flora containing, in the main, four types of these organisms.

Vaccination of such patients, over a shorter or longer period, with carefully prepared and properly administered autogenous vaccines containing these organisms gives results when all other methods of treatment have failed.

A successful therapeutic result would seem to depend not so much upon the age of the patient and the duration of symptoms as upon the absence of irreparable damage in the lungs and bronchi.

Discussion *by Max Rothschild, San Francisco; George Piness, Los Angeles.*

As an aftermath of the waves of influenza, which began with the great pandemic of 1918, there are now a large number of patients who are suffering from some of its sequelae. Of these we have found asthmatic bronchitis to be an extremely important sequel and one not sufficiently emphasized. During the routine treatment of a large number of asthmatic patients over a period of about five years, we became impressed with the observation that of those instances of bacterial asthma which we were called upon to treat, two groups of patients responded better than the others. These were the children whose asthmatic bronchitis followed some acute respiratory infection, such as whooping-cough, bronchopneumonia, grippe, a neglected bronchitis or a tonsillitis, and secondly, those adults and children whose asthmatic paroxysms were definitely the outcome of an attack of influenza of varying severity. The role of infection and the treatment of bacterial asthma in childhood have been presented in a former communication. (Hurwitz, S. H., Bacterial Asthma in Children, Med. Clin. N. America, 1922, 6299.) In this paper, I wish to emphasize the value of properly prepared and carefully administered autogenous vaccines in the post-influenzal group, and to call attention to some of the end-results obtained by this mode of therapy.

CHRONIC INFLUENZAL BRONCHITIS

Most patients affected with acute epidemic influenza recover without any pathological changes in the respiratory tract. In a small proportion, after the acute manifestations of the disease have subsided, there still remain certain annoying symptoms. These chronic symptoms, as well as the pathology in the lungs and bronchi underlying them, may last for months, and in many instances may be so serious that a complete return to a normal state can hardly be expected.

Chronic forms of influenza may manifest themselves in various clinical pictures. These have already been noted by Pfeiffer after the epidemic of 1890-1891, and again described by clinical observers who have studied the waves of recent years. In a large proportion of instances, especially those in which the primary disease ran a mild course without pulmonary complications, only a laryngitis and rhinopharyngitis remained for weeks or even months. In others in whom the bronchi were severely affected during the course of influenza, subacute purulent bronchitis, general or apical, remained for an indefinite period. In still others in whom the lungs and pleura were implicated during the course of the primary acute disease, bronchiectasis, chronic abscess of the lung and thickened pleura remained. Many of these patients were pronounced tuberculous and treated in hospitals and sanatoria for the tuberculous.

Of these post-influenzal sequelae involving the respiratory tract, chronic influenzal bronchitis, although not the most serious, may become very incapacitating. This is particularly true of patients whose bronchitis becomes associated with paroxysms of bronchospasm. Where this occurs, the condition may properly be designated post-influenzal asthmatic bronchitis. And it is to be emphasized that in these instances we are not concerned with true spasmodic attacks of bronchial asthma due to sensitization with bacterial or other proteins, but rather with a secondary infection of the bronchial mucous membrane whereby a simple chronic bronchitis is converted into an asthmatic bronchitis and to a change of the usual type of bronchitic sputum which is easily raised into a jelly-like and tenacious material that can be removed only with difficulty from the lumen of the bronchi, even

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on repeated coughing. The protracted spell of coughing, together with the tenaciousness of the sputum, gives rise to a constriction of the bronchial muscles that leads to marked inspiratory dyspnoea and suffocation.

CLINICAL DATA

The carefully taken histories of the nine instances of post-influenzal asthmatic bronchitis summarized in the table all contain certain clinical features in common: First, a predisposition to the ready development of head colds and respiratory infections, more particularly at those periods of the year when naso-bronchial infections are prevalent; second, the development of paroxysmal attacks of asthmatic bronchitis at a shorter or longer interval after recovery from the more acute symptoms of influenza, and third, the ushering in of every subsequent attack or series of attacks by a new cold or bronchitis.

The patients varied in age from 8 years to 56 years and the duration of symptoms when the patients were first seen ranged from four weeks to six years. It appears, therefore, that post-influenzal asthmatic bronchitis may occur at any age at which influenza may serve as the inciting cause and that the symptoms produced may continue until they are brought under control. The factors of age and duration of symptoms have, however, a very important bearing on prognosis. Children, on the whole, do better under treatment than adults, even though the symptoms are of longer duration. In adults, the outlook is determined in large measure by the degree of damage done to the congested and edematous mucous membrane at the time treatment is begun. In our experience, moreover, this type of asthmatic bronchitis in adults yields better to treatment than does that following a long-neglected bronchitis of other etiology. This may be explained in a measure by the shorter duration of the symptoms in the influenzal cases, most of which have come out of the epidemics beginning with the one in 1918.

In several of the patients, there was historical evidence of some injury to the bronchial mucous membranes prior or subsequent to the influenzal infection. The 8-year-old boy (Case III) had passed through whooping-cough; another patient (Case IV) gave a long history of bronchitis before contracting influenza in 1918, and one patient (Case V) had incurred some probable injury to the bronchi from the accidental ingestion of a solution of lysol instead of a cough mixture some two months after convalescence from influenza in 1922. The patient dates the beginning of her paroxysms from this episode, although it is not quite clear how ingestion of the irritant injured the lining of the bronchi.

As in most instances of asthma, whether of the sensitive or non-sensitive type, certain contributory causes were responsible for bringing on paroxysms. In two of the patients (Cases I and II) the contributory factors were associated with occupation. One of them was a saleswoman who handled woolen goods, and the other worked behind a drug counter. In the former instance there was exposure to the organic dust of clothing and in the latter to powders, sachets and dusts of all kinds. A great variety of other contributory causes was given by the remaining patients: Nervousness, anger, overloaded stomach, wind and fog. In two patients (Cases I and VIII) hearty laughter was thought to bring on a paroxysm. In still another the irritating odor of paint usually evoked a wheezing spell. Of all the contributory causes, however, none was so certain to bring on a paroxysm of asthma as taking cold. Infection of the naso-bronchial passages seemed to be more potent than any other contributory cause. Of the coexisting conditions present in several of the patients, two—pregnancy and influenzal endocarditis—deserve brief mention. One patient (Case I) was married several months after a course of treatment and passed through two pregnancies in the fol- asthma. Another patient (Case VI) was in the early months of pregnancy when treatment was commenced. The spells of wheezing ceased about a month after beginning treatment, which was stopped six weeks before term. There was no recurrence of the paroxysms during and after delivery. Because of the strain which a pregnancy throws upon the respiratory mechanism, and because of the well-known aggravation of the asthmatic condition during the course of a pregnancy, it is felt that the effectiveness of this form of treatment has been put to more than the ordinary test.

The occurrence of a well-compensated influenzal endocarditis in one patient (Case VIII) is of interest because, in this instance, the influenzal virus was responsible both for the cardiac as well as the respiratory tract injury. Inasmuch as no other cause for the injured valves could be made out, we believed this diagnosis justified, more particularly as clinical signs of a mitral stenosis first appeared soon after recovery from a severe influenza contracted in 1918 and lasting six weeks.

The findings on physical examination were so uniform in most of the patients that it is possible to summarize them. Where the bronchitis and asthma had existed for several or more years, the physical signs of some grade of emphysema of the lungs was present. This was associated in three of the patients (Cases IV, VII and IX) where the asthmatic condition had existed five, six and five years respectively, with changes in the configuration of the thorax, increase in the antero-posterior diameter and fixation at the costo-sternal articulations.

A marked similarity existed in the roentgenograms of the chest which were taken of these and other patients suffering from asthmatic bronchitis: The bronchial shadows were increased, the hilus thickened on one or both sides and the mediastinum usually broadened. No roentgen evidence of tuberculosis could be made out. In several of the patients (Cases V and IX) where there was grayness in the lung fields, the shadows occurred at the base and not in the upper third, which is more likely to be true of shadows caused by tuberculous infiltration. Moreover, in all instances, careful search for tubercle bacilli by direct smear and by antiformin concentration methods proved negative.

When chronic bronchitis exists, careful examination of the sputum by cultural methods discloses

SUMMARY OF TREATED CASES OF POST-INFLUENZAL ASTHMATIC BRONCHITIS

Case	Date Seen	Age	Sex	Occupation	Date of Influenza	Date of Onset of Asthma	Duration of Symptoms	Frequency of Paroxysms	Bacteria in Vaccines	Duration of Treatment	Results
S. R. ..... (I)	1920	24	F.	Saleswoman (drug store)	1918	1918	2 years	Every 2-3 weeks; recently every week or oftener.	Streptococcus non-hemolyticus.	Nov. 12, 1920, to Mar. 11, 1921.	Last written report June, 1923. Free from spells for over 2 years; passed through two pregnancies (Feb., 1922, and Oct., 1923) uneventfully.
M. W. W..... (II)	1920	35	F.	Saleswoman (clothing)	Dec., 1919	Nov., 1920	6 weeks	Daily spells of wheezing, chiefly at night.	No. 1: Pneumococcus, streptococcus, hemolyticus and non-hemolyticus. No. 2: Streptococcus viridans and staphylococcus aureus.	Nov. 19, 1920, to Feb. 7, 1921. July 21, 1921, to Dec. 12, 1921.	Patient last seen on Feb. 16, 1923, over one year since last treatment; reports absence of symptoms during this period. A written report 1 year later (Feb., 1924) states that she has occasional tightness in chest, but no wheezing.
R. T. ..... (III)	March, 1921	8	M.	Schoolboy	1918	1918	3 years	Severe paroxysms every 5-6 months until 1920, then every 2-3 months.	No. 1: Streptococcus non-hemolyticus; some staphylococcus and micrococcus catarrhalis. No. 2: Same.	Mar. 30, 1921, to June 30, 1921. Nov. 23 to Jan. 30, 1922.	Reported June 7, 1922, 5 months after last treatment and again in Oct., 1923. Patient has occasional attacks of sneezing, tightness in chest and cough, but no wheezing; does not catch cold so easily.
P. H. H..... (IV)	April, 1923	56	M.	Machinist	1918	1918	5 years	Every 3 months or oftener at onset; for past 3 months paroxysms continuous.	Streptococcus non-hemolyticus, streptococcus viridans, streptococcus hemolyticus, streptococcus hemolyticus alpha and beta.	May 5, 1923, to Aug. 18, 1923.	Definite relief 3 weeks after beginning of treatment. Despite bad cold in head and chest, patient had no wheezing. Last seen on March 22, 1924. Reports that colds bring on mild spells of wheezing lasting only several hours. No incapacitation, can work.
J. H. R..... (V)	July, 1923	27	F.	Housewife	Jan., 1922	March, 1922	1½ years	About every 5-6 months. Last spell continuous off and on for 7 weeks.	No. 1: Streptococcus non-hemolyticus, streptococcus viridans, streptococcus hemolyticus, streptococcus hemolyticus alpha and beta. No. 2: Same.	Aug. 10, 1923, to Dec. 3, 1923. Apr. 4, 1923, another course begun; is still under treatment.	Marked improvement after first month; increase of 10 pounds in weight. Colds do not bring on wheezing. Feb. 15, 1923, severe head cold and cough brought on a recurrence. Revaccination advised. Still under treatment.
F. A. G..... (VI)	Oct., 1923	30	F.	Housewife	1918	1920	3 years	Severe spells about once a month.	Streptococcus non-hemolyticus, streptococcus viridans, streptococcus hemolyticus, streptococcus hemolyticus alpha and beta.	Oct. 26, 1923, to Mar. 11, 1924.	Cessation of wheezing several weeks after beginning of treatment. Increase in strength. Pregnancy has progressed uneventfully and has not brought on paroxysms of asthma. No severe spell in 5 months. Full term baby delivered April 24, 1924.
C. L. R..... (VII)	Nov., 1923	40	F.	Stenographer	1918	1918	6 years	Spells infrequent at first and easily relieved. From 1921 to 1923 spells more frequent and of longer duration. Since April, 1923, paroxysms almost daily.	Streptococcus non-hemolyticus, streptococcus viridans, streptococcus hemolyticus, streptococcus hemolyticus alpha and beta.	Nov. 22, 1923 (treatment begun). Still under treatment.	Definitely relieved. Still has some tightness in chest and a little wheezing several times weekly, usually brought on by head colds. Can undergo considerable exertion and exercise without inciting a paroxysm. Sleeps better than she has since beginning of ailment. Has been under treatment about 4 months.
J. M. B..... (VIII)	Jan., 1924	20	F.	Housewife	1918 1920 1922 1923	Dec., 1923	1 month	Four paroxysms first month.	Streptococcus non-hemolyticus, streptococcus viridans, streptococcus hemolyticus, streptococcus hemolyticus alpha and beta.	Begun Jan. 25, 1924. Still under treatment.	Patient is still under treatment. Now 3 months after beginning of treatment, there is complete freedom from symptoms even following moderate colds and hearty laughter, both of which always acted as powerful predisposing causes.
W. H. ..... (IX)	Feb., 1924	35	F.	Housewife	Nov., 1918, and Jan., 1919	1919	5 years	Spells at first once a month, lasting 1-2 days; now paroxysms once a week and last 7-10 days.	Streptococcus non-hemolyticus, streptococcus viridans, streptococcus hemolyticus, streptococcus hemolyticus alpha and beta.	Begun Mar. 12, 1924. Patient is still under treatment.	Patient has been much depleted by asthma, weighing only 79½ pounds. No severe spells since beginning of treatment. Slight tightness in chest and wheezing early in morning is more readily controlled by asthma powders. Final outcome still in doubt.

various and often numberless bacteria. For sputum cultures to give any results, the sputum must be carefully collected as blood or urine that is to be used for cultural purposes. For isolating the predominating organisms from the sputum obtained from the deep respiratory passages, and in the preparation of vaccines from them, we have followed, with minor modifications, the technic used by previous workers. A suitable nugget of sputum is obtained in a sterile sputum bottle, and washed about three times in sterile salt solution. A smear from such a specimen is then made on a blood-agar plate. Colonies from this plate are then streaked on a second blood-agar plate, and then on a third, to insure purity. From these, several colonies of each type of organism are transferred to slants of Loeffler's medium so as to insure sufficient growth. After twenty-four hours, tests for purity are made, and then each slant is washed off with the water of condensation, and about one-half cubic centimeter of this is transferred to a tube of Avery blood-broth. For streptococci, the reaction of this medium should be about P H 7.8. The twenty-four hour growth in broth is then washed three times in saline, the last washing being carried out in the Hopkins graduated tube. A mixed suspension is then made of the various types of organisms to be used, approximating their predominance on the blood plates. The bacteria are killed by heat at 60 degrees centigrade for one hour and tested for sterility. The vaccines thus made were diluted so that each cubic centimeter contained 1,000,000,000 bacteria.

Studied by this method, we have found that in a series of 120 sputum cultures carried out on more than fifty patients having bacterial asthma as a sequel either of influenza or some other type of respiratory infection, streptococci occurred in more than 50 per cent of the patients. The other organisms isolated were micrococcus catarrhalis, staphylococcus, pneumococcus, gram-positive diplococci, diplo-streptococci, gram-positive bacilli, gram-negative bacilli, and the bacillus of Friedlander. These findings, in the main, are in agreement with those of other workers. The incidence of streptococci in our series is slightly less than that found by Rackemann working at the Massachusetts General Hospital and would probably have been higher if we had studied more carefully the cultural characteristics of the gram-positive diplococci and diplo-streptococci. Pneumococci and micrococcus catarrhalis have been found much less frequently in our later cultures because we have become more successful in obtaining and in properly washing our sputum specimens. The latter organisms are probably only infrequently responsible for the type of asthmatic bronchitis under consideration.

The streptococci isolated could be grouped in the majority of instances into four main types: A non-hemolytic streptococcus, a viridans, and two types of hemolytic streptococci, an alpha and a beta, the former having a narrower zone of hemolysis on the blood-agar plate than the latter.

It was because of this overwhelming preponderance of the streptococcal flora that we have made use in all but several of the patients included in this report of vaccines containing one or more representatives of this group of bacteria. In two of the patients treated in 1920 and 1921 (Cases II and III) other bacteria were also introduced into the vaccine because the role of streptococci was then not fully appreciated.

I cannot present proof that the streptococci isolated and employed in the vaccines play more than a secondary part in the causation of the asthmatic bronchitis; nor is it certain that there is any specific qualitative difference in the various culturally similar types of streptococci. In other words, it is not possible to state whether a given streptococcal flora isolated from the sputum of one patient would not have been as effective in producing a result in another patient as in the one from whose sputum the organisms were isolated. The difficulty of carrying out such observations on human beings is obvious. On the whole, it should be emphasized that all workers in this field stress the greater efficacy of fresh vaccines and more particularly of autogenous ones in the treatment of asthmatic bronchitis.

TREATMENT AND RESULTS

In most instances, we began with small doses of pure vaccine given at five to seven day intervals, the shorter interval being used between the beginning smaller doses. The size of each succeeding dose must be regulated largely according to the reaction of the patient to the previous dose. The initial injection varied from 50,000,000 to 100,000,000 organisms, and the final one amounted to anywhere from 500 to 1,000,000,000 bacteria.

As previously stated, none of these patients gave a positive skin test to any bacterial protein, but several showed a well-marked local reaction at the site of inoculation. We are not convinced that a successful therapeutic result is in any way directly related to the occurrence of a local reaction, since the patients who did not react locally were definitely improved, both subjectively and objectively, as a result of vaccine treatment.

The duration of treatment in six of the patients whose course of treatment has been completed averaged about three months. Three of these patients developed relapses following head colds and had to be revaccinated. In three patients now followed over a period of two years there has been no recurrence of paroxysms, and one man past middle life has been very comfortable for a year since treatment was discontinued. Of the remaining patients, four are still under treatment. Improvement in these instances must be measured by the prolongation of the interval between spells and by the shortening of the duration of each paroxysm. One patient with continuous asthma for seven weeks prior to treatment has been comfortable for about eight months, and another with daily spells for a year has been greatly relieved for over five months. In another instance (Case VI), where paroxysms before treatment occurred at least once a month, the patient passed through a pregnancy without a recurrence. Two women are still under treatment and show encouraging improvement.

It is fair to add that only those patients were regarded as suitable subjects for treatment who showed no irreparable damage in the bronchi and lungs. Such pathology cannot be righted by vaccination, and attempts to do so have done much to

discredit a useful mode of therapy in this as well as in other forms of bacterial asthma.

Besides the proper selection of patients, two other factors are essential for a successful result. Manifest pathologic conditions of the nose, throat and paranasal sinuses, which may be responsible for continued reinfection of the respiratory tract should be corrected; and every consideration should be given to improving the general health and resistance of the patient.

CONCLUSIONS

Post-influenzal bronchitis with or without symptoms of bronchospasm is a frequent sequel of epidemic influenza.

We believe the condition to result from secondary infection of a congested and edematous bronchial mucous membrane with a streptococcal flora containing, in the main, four types of these organisms.

Vaccination of such patients, over a shorter or longer period, with carefully prepared and properly administered autogenous vaccines containing these organisms gives results when all other methods of treatment have failed.

A successful therapeutic result would seem to depend not so much upon the age of the patient and the duration of symptoms as upon the absence of irreparable damage in the lungs and bronchi.

DISCUSSION

Max Rothschild (380 Post Street, San Francisco)—Asthma may be the resultant of so many different causes that it might be advisable to consider it an important and usually most distressing symptom instead of a disease per se. Therefore it is of the utmost importance to find out before beginning treatment of any kind, to what influence or to what kind of an infection an asthma is due. Very often the previous history will give us the necessary information.

If an asthmatic traces the beginning of the symptoms to an influenzal attack, it is most probable that this infection with a resulting bronchitis may be the cause for the attacks. We all have seen cases in which the asthmatic attacks do not last through the year, but occur at certain times when the weather condition may predispose susceptible individuals to bronchitis, and these cases are certainly not due to food or foreign protein-sensitiveness. These so-called attacks of winter asthma resemble, to a certain extent, the post-influenzal cases described so well in Dr. Hurwitz' paper. They are bacterial in nature, and we observe them frequently in children. These cases yield usually in a most gratifying way to vaccine treatments, and they do so without any changes being made in their mode of living or diet. The bronchial muscle-spasm is often due to some foreign protein or protein-derivative, as is generally known, but it is also unquestionably due at times to an inflammatory process in the mucous membrane with a resulting secretion of mucus and an obstruction of the bronchioli. And these are the cases of which Dr. Hurwitz speaks and which are so splendidly relieved by the proper use of properly prepared autogenous vaccines. It is always advisable to test these cases with the different bacterial proteins and we must not forget that we have to consider "second day" reactions in these patients. We believe that in the majority of these cases where large amounts of vaccines are used, the results seem to be better. I remember especially a case of a young boy with very severe asthmatic attacks—post-influenzal. The treatment by Dr. Hurwitz—to whom I referred the case—was certainly remarkable and bears out his ideas and conclusions. Another most instructive case has been observed by us which, while it was not due to an influenza, but to a tuberculosis, resembled in its asthma-causing attacks those post-influenzal cases. The inflammatory process in the mucous membrane of the bronchi or bronchioli with secretion of mucus and obstruction produced intense muscle-spasm. As climatic changes did not help her, we compressed the diseased lung, and immediately the asthmatic attacks stopped and have not recurred. It proves that these attacks are not always due to bacterial proteins, but often to mechanical obstruction in the bronchioli.

George Piness, M. D. (1136 West Sixth Street, Los Angeles)—The treatment of post-influenzal asthmatic bronchitis is not as simple as one would think after reading Dr. Hurwitz's paper. My experience with this type of bronchitis has been that it is the most stubborn type to contend with and that it does not respond to treatment very readily. The results are dependent upon two factors; first, the preparation of a suitable vaccine; secondly, time and patience, and then only about 37 per cent obtain the results desired.

The treatment described by Dr. Hurwitz is similar to that carried on in my own practice, with the exception that we carry on our treatment over a longer period of time, approximately six months.

I am fully in accord with the writer in that local reactions are not a factor in determining the end result, since a great many patients give reactions locally without obtaining results, while others have no local reactions and do obtain results.

We are at present treating a series of cases, such as those described by Dr. Hurwitz, with chlorine gas, but it is too early to report results at this time. We will, however, publish them in the near future, regardless of whether they are successful or otherwise.

SURGERY OF THE ANTRUM OF HIGHMORE*

By CULLEN F. WELTY, M. D., San Francisco

For diagnosis as well as for purposes of treatment, a probe puncture of the Antrum of Highmore will give definite information.

The x-ray is of little or no benefit in determining the kind of operative procedure necessary.

We rarely see a nose that is perfect anatomically with an acute infection.

Because of the multiplicity of the different operative procedures on the Antrum of Highmore, it is at once apparent that they have not been satisfactory in the ultimate outcome.

For this reason I am going to submit to you the definite operations that I have used and explain to you why I believe they are superior to any others.

We will divide the surgery of the Antrum of Highmore into operations for acute infections and operations for chronic infections. As to the time when an acute infection becomes chronic, it is difficult to establish the acuteness or the chronicity of an individual case. From a surgical standpoint it depends entirely on the pathological conditions present. From this you can readily understand that the question resolves itself largely to the judgment of the individual surgeon.

However, there are certain definite lesions that are present at times in chronic cases that establish beyond a question of doubt the operative procedure to be adopted. Again, there are chronic cases that do not show any definite pathology. There are some few acute cases that show by minor surgical procedures that the changes in the mucous membrane have been of such a nature that they will not recover,

* Presented to the Section on Eye, Ear, Nose, and Throat, Fifty-third Annual Session of the California Medical Association, Los Angeles, May, 1924.

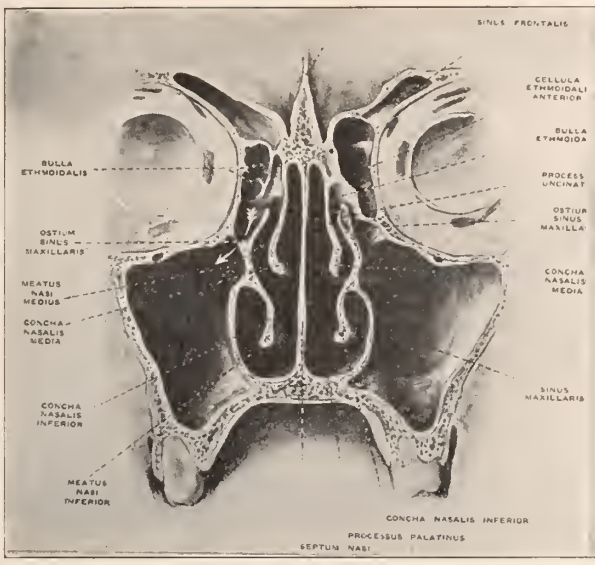


Figure 1 shows the teeth in place; the relation of the alveolar process to the Antrum of Highmore.

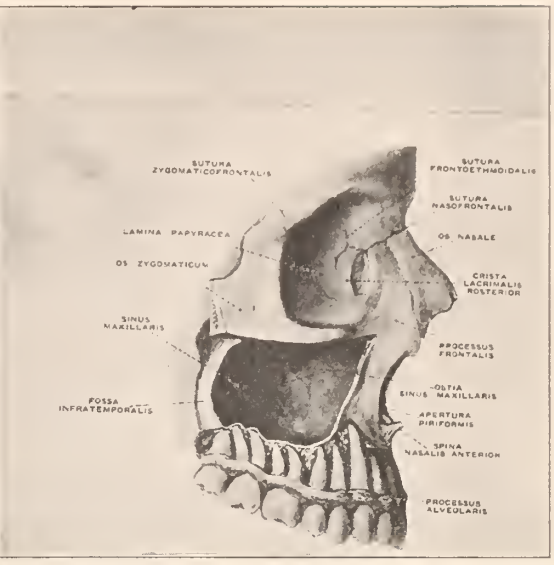


Figure 2 shows the depth of the alveolar process and the relation of the teeth.

or that the infecting micro-organism is so virulent that they will not yield to the minor procedures.

Jansen of Berlin says that an influenza infection of the Antrum of Highmore always requires the radical operation. I am not thoroughly in accord with his teachings, as the known cases of influenza infections are not of sufficient number to warrant positive statements.

The x-ray is of little or no benefit in determining the kind of operative procedure necessary.

Did it ever occur to you that in an acute corrhyza the whole mucous membrane of the nose and that of all the accessory sinuses participate? The blood supply is the same. The mucous membrane has not quite so many cilia and there are not so many glands to secrete mucus. Otherwise they are the same. Now, with this in mind, there are many cases that recover entirely if left alone; left to nature to overcome the infection. The cases that do not, have a malformation such as a deviated septum or some hypertrophied turbinates. We rarely see a nose that is perfect anatomically with an acute infection of the Antrum of Highmore. In other words, the malformation and the hypertrophied tissue predispose to such an infection. Often an acute infection will recover if the secretion has sufficient room to discharge. This is decided for or against by the amount of discomfort (pain or headache). Sometimes it is necessary to do a septum operation. Sometimes the removal of the anterior end of the middle turbinate is sufficient. The removal of an hypertrophied anterior end of the middle turbinate is always essential.

For diagnosis as well as for purposes of treatment, a probe puncture of the Antrum of Highmore will give definite information as to the kind of infection, the character of the infection, and sometimes will tell you that you are dealing with an acute exacerbation of a chronic suppuration (by the appearance of cheesey pus). This simple procedure is to be repeated daily or every other day, dependent upon the character of the discharge, the time between treatments to be increased as the infection subsides.

It is usually quite easy to find the opening of the puncture needle after it is once established. (Some prefer a larger opening, the size about the circumference of an ordinary lead pencil.) I only mention this to say that it is unnecessary. At times a canula can be introduced into the normal opening and the cavity cleaned in that way.

In the event that the middle turbinate has been removed in part or whole, an opening can be made more easily at this place than anywhere else, and it will remain patent and the infection handled in this way.

Any opening that is made in the interior meatus will not drain the Antrum of Highmore because there will remain a partition a half inch (more or less) that separates the nose from the antrum. Because of this, the other procedures are better, as they do not impair the nose in any particular. With one or the other of these operations, you must bring your case to a successful issue or do more radical work. In all my practice, this has only been necessary a few times. (They may have been influenza infections.)

Acute infection following the extraction of a tooth. This is entirely different from the other forms because we start with a perfectly healthy Antrum of Highmore, and if given any kind of a chance will recover in a short time. The infection is based upon traumatism plus lack of surgical cleanliness.

The treatment for this is to wash the antrum through the fistula daily until the discharge begins to subside and then wash every other day, every third day, and so on. The fistulous tract must be tamponed after each irrigation and this tampon must be sufficiently tight so that water or air will not enter, and must be of a single piece of gauze. When the discharge subsides, the packing is removed every three or four days, with less and less gauze used, until the fistula closes completely.

1. From a previous Antrum of Highmore operation. This must be closed by plastic surgery. Tak-

ing a piece of mucous membrane and periosteum from one side of the fistula, freshening the edge of the opposite side, elevating and bringing together without tension and suturing.

2. Fistula brought about by the extraction of a tooth. The smaller ones are brought to a successful issue by curetting very thoroughly because often there is a loose piece of bone. Tamponing and cleansing from day to day and usually the fistula will heal. If you fail to bring this to a successful issue, a radical operation is necessary, and at the time of the radical operation the fistula can be taken care of.

Fistula into the Antrum of Highmore, with such a large opening that it is impossible to close by the foregoing procedures, will be brought to complete healing by an operation that I have devised, and I can assure you is perfectly satisfactory.

Under general anesthesia, an incision was made at each end of the fistula on the outer side of the alveoli and carried well up to where the bone had been removed in the Antrum of Highmore operation. Periosteum and mucous membrane were removed from the alveolus, and afterward the whole of the outer border of the alveolus, into the Antrum of Highmore. A similar incision was made on the inside at each end of the fistula, periosteum and mucous membrane elevated from the bone and the bone removed. By this time I had an opening an inch and a half long, into which I could easily put my finger and enter the Antrum of Highmore.

An incision was now made in the median line of the hard palate its entire length, and the periosteum elevated over the entire area. It is easy to understand that by this procedure all tension will be removed when the sutures are introduced. So that the sutures may not cut the tissue, two perforated lead discs are used on each side and the sutures tied rather snugly. These sutures can remain for ten days, when it will be found that the union has been complete and the patient will be very well satisfied.

Chronic infection of the Antrum of Highmore, diagnosed by accompanying nasal pathology, malformation, by the duration of the discharge, by the character of the discharge and by the symptoms produced. I proceed in one way—by the radical operation or the Luc-Caldwell operation with the Welty modification.

This operative procedure has been so universally satisfactory for me that no one could induce me to do a different operation. For probably twelve or fifteen years I have been doing it in the same way, the same procedure in detail, and I can assure you that I have not had to reoperate a single case. Besides, every case is well; absolutely dry as far as I am aware. With such a record for an operative procedure it stands in your own mind pre-eminent. I want you to know about it. I want you to do it in the way I have done it, and I know you will have the same result. However, I must insist that you do not make any modifications until you have learned well to do in detail what I describe.

The incision, about two inches long, is made over the canine fossa, about half an inch above the margin of the mucous membrane and the teeth.

The opening into the Antrum of Highmore is made with a round chisel and enlarged with the Hajak antrum gouge until every vestige of overhanging boney wall has been taken away. Afterward the edges are made smooth by a hand burr or one driven by electricity.

The polypoid membrane is now curetted from the cavity of the Antrum of Highmore, every vestige of it. Sometimes it is particularly difficult to remove the mucous membrane that dips into the normal or abnormal openings into the nose. After the cavity is dry and every part of the mucous membrane removed, you introduce the round chisel into the nose and to the lateral side, enter the Antrum of Highmore. After it is once entered, a heavy curet can be used to break down the whole of the lateral wall of the nose below the inferior turbinate. This will extend to the far end of the Antrum of Highmore. Now, with a sharp curet, cut down the remaining edge of the lateral wall of the nose until the floor of the nose and the cavity of the Antrum of Highmore are on the same plane. Sometimes it is not possible for them to be on the same plane. However,

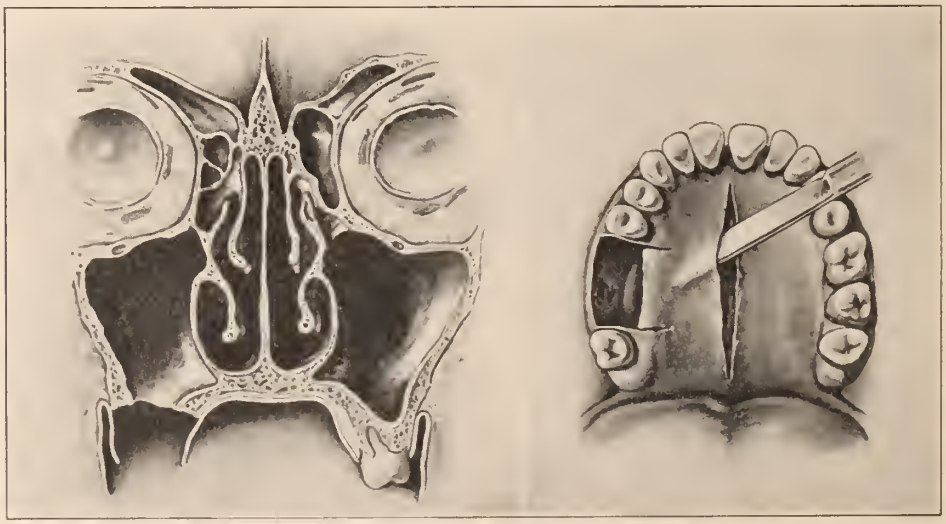


Figure 3 shows the alveolar process on either side removed. The mucous membrane and periosteum lying loose.

Figure 4—The incision and elevation of the periosteum and hard palate, and the incision from either side of the fistula.

the lateral wall of the nose must have been so completely removed that it cannot be found with a hooked probe. Now you can take a curved scissors and mouse-toothed forceps and cut the mucous membrane and bone away until you encounter the attachment of the inferior turbinate. This is cut away for the entire length of the lateral wall of the nose. All edges and rough places to be cut away or removed with a burr.

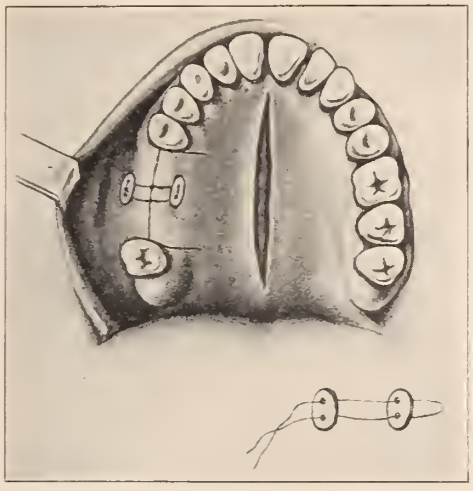


Figure 5

Now we are ready to close our original incision with interrupted sutures of black silk, a small tampon left in the Antrum of Highmore while closing. Before tying the individual sutures, they should be made secure by fastening with artery forceps. It usually requires from five to six sutures. Before tying sutures, remove the tampon. These sutures are removed in from six to eight days. Tampon about six inches long and two inches wide is introduced into the antrum by way of the nose. This is removed the following morning. This small tampon is put into the nose for the purpose of forming a clot and not to control hemorrhage.

After the fourth day the Antrum of Highmore is irrigated with normal salt solution daily until the water returns free from secretion and shreds. The interval of these irrigations is increased with the progress of recovery.

I have saved what I consider the best of the technique for the last, and that is my modification of the Luc-Caldwell operation. This consists of not touching the inferior turbinate surgically.

You can examine any of my patients, and you could not say from the appearance of the inside of the nose that it had ever been touched by an operative procedure.

The integrity of the nose is as good as it ever was, and they never have a relapse.

210 Post Street.

DISCUSSION

E. F. Tholen, M. D. (1136 West Sixth Street, Los Angeles)—Dr. Welty brought out some excellent points in his paper. I wish to discuss it only from the dental side. I have seen many cases of antral disease in which the sole etiological factor was an abscessed tooth or a pyorrhea pocket extending into the antrum. Removal of the diseased teeth and curetting of the socket with a few irrigations of the antrum brought about a cure. If a chronic antrum persists after good drainage is established, the devitalized teeth on that side of the jaw should be removed before resorting to a radical operation. I rarely pack an antral fistula more than a few days. If the opening is large I have a removable dental shield made to fit over the opening and attached to the teeth. This prevents solid food particles from going into the antrum.

I practice the principles devised by Dr. Welty for closure of antral fistulae, but do not find it necessary to remove as much alveolar process or to make the mesial incision more than one-half way to the mid line.

Kaspar Pischel, M. D. (Butler Building, San Francisco)—Regarding the value of roentgen pictures, I have learned from experience that the negative findings are more reliable than the positive ones. An antrum once affected seems to show a shadow in the roentgen picture, even if it is entirely healed; apparently the walls become thickened by the inflammation.

When making a probe puncture for diagnostic purposes, I first aspirate, to assure myself that the needle is in the antrum, because fatalities have been reported from blowing air into veins. If I intend to wash out the antrum several times, I prefer to use a large trocar, because then I can find the opening so much easier and with less traumatism.

Frank Albert Burton, M. D. (Watts Building, San Diego)—A busy ear, nose and throat man sees a large number of cases with maxillary involvement and it is always valuable to have the benefit of the experience of other rhinologists. After all, experience is the best teacher and since Dr. Welty has used the method that he refers to for a period of fifteen or twenty years, it is valuable to us to have the benefit of his large experience.

In his method, Dr. Welty provides free drainage and good ventilation, which we all recognize as classic objectives in dealing with the sinuses. It was brought out in the paper that there are often intranasal abnormalities and pathology requiring attention to provide good drainage and ventilation. As it not infrequently occurs that making a large naso-antral opening and irrigation fails to get the desired results where there is a deviated septum hypertrophied or degenerated turbinates.

In my work I have always considered the matter of diagnosis the most important step, and have learned to depend largely upon careful history taking and clinical findings. Trans-illumination and x-ray used only incidentally. It is my conclusion that from time to time a case presents with a diseased maxillary sinus, the diagnosis of which can only be made by exclusion. For such cases the puncture method recommended by Mullin and Dennis is very helpful.

One of our colleagues is working upon an instrument with which he soon expects to make quick illumination possible via puncture canula passing through naso-antral wall. Such a method is surely feasible and doubtless will soon be available for us all.

In sinus surgery, as well as all other surgery, the conservation of functioning structures should not be lost sight of and with this in mind in all my sinus surgery I have studiously avoided destruction of healthy turbinate tissue. I have been able to get satisfactory results by fracturing the inferior turbinate and lifting it high up in the nose (avoiding traumatism to soft tissue), removing the naso-antral wall as completely as possible, taking special care to come well forward and to provide the least amount of "bridge" between floor of nose and floor of antrum. Immediately following the operation, I dry and thoroughly inspect the cavity with the naso-pharyngoscope.

By rhinologists it is generally conceded that empyema of the maxillary sinus is frequently overlooked. This is probably even more true in children than in adults. In the surgery of the maxillary sinus of the child, the difference in its size and location must be taken into account.

In connection with infection associated with tooth extraction, the better dentists are refraining as far as

possible from probing through the tooth socket into the antrum.

Dr. Welty (closing)—In reply to Dr. Tholen I must say that it is absolutely important that the fistulous opening be kept closed as long as air or liquids can be forced through. Otherwise the patients will not all recover.

As I said in my paper, acute infection of the Antrum of Highmore by way of tooth extraction can be treated very satisfactorily by keeping the fistula open as long as there is pus in the antrum and then allow it to close. The protector is a very excellent device, and I have frequently used it. If patients do not recover, they have to have the radical operation.

In reply to Dr. Pischel in regard to x-ray examinations of the Antrum of Highmore, will go a little more into detail because the x-ray is not at all reliable.

1. An infected antrum will frequently give a negative finding.
2. An antrum that has once been infected will frequently give a positive finding after the case is entirely well.
3. An Antrum of Highmore that has once been operated will always give a positive finding, when cured or otherwise.
4. The puncture needle, with irrigation, is the only reliable way to know the condition of the Antrum of Highmore.

In regard to sudden death following the introduction of the needle into the Antrum of Highmore, I am not so certain as to what causes the death. In one instance that I know of, such a death was caused by a cerebral hemorrhage. There was an autopsy.

Another case that I know of occurred as the needle was introduced into the Antrum of Highmore. Everything was negative at this autopsy finding. Probably due to cocainism. My reasons for saying so are based on the fact that a pledget of cotton saturated with a 20 per cent solution of cocain should never be left in the nose for any purpose whatsoever. The only safe way is to wrap a small piece of cotton tightly on an applicator, dipped in a 20 per cent solution of cocaine; excess pressed out. Rub this particular surface for two or three minutes. Three different rubbings or less will suffice. There will not be any pain, nor will there be a chance for cocainism.

This has been my practice for a long time, and I never have seen cocainism. By the way, hysteria and faintness are often mistaken for cocainism. This is largely overcome by operations in the recumbent position.

In reply to Dr. Burton: It is absolutely necessary in all cases to correct any malformation such as a deviated septum. Because the contact of a deviated septum will produce a mucous secretion that will leave your patient not entirely well, and if this is continued will more than likely upset all your operative procedures. The same holds true for hypertrophies. In regard to polypi, they may have been produced by the drainage from the Antrum of Highmore, and again they may be from infection above. They must be removed and this region made clean, or again your operation will fail, or the patient will continue to have pus in his nose and to the patient his operation has not been successful because he continues to have pus.

The modification of this operation consisted in leaving the whole of the inferior turbinate in place. I have tried the fracture, but I have discontinued it because, in the first place, it is not necessary, and second, it does not always remain just where you would like to have it.

At the present day it is indeed bad surgery to remove any healthy tissue from the nose that has anything to do with the functioning of nasal respiration. That was my reason for leaving the whole of the inferior turbinate. In addition, it frequently happened that there was a watery discharge from the cut end of the turbinate that was very difficult of correction and sometimes could not be corrected.

In conclusion, I will say that if you are interested in this monograph of mine, read the whole paper more carefully than you did before. Pay particular attention to what I have said and the way I have said it, for I believe in every statement that I have made. I do believe in it in such a way and to such a degree that I wish to inspire you with confidence; after practicing this for some time, you will be as enthusiastic as I am.

EPITHELIOMA OF THE LIP TREATED WITH RADIUM*

By DOUGLASS W. MONTGOMERY, M. D., San Francisco, and GEORGE D. CULVER, M. D., San Francisco

It is our belief that a malignant growth of the lip that can be successfully treated by any of the known methods can be more surely eradicated by the use of radium, either alone or in combination with whatever other means may be indicated, and the perfection of the cosmetic functional result cannot by other methods be equaled.

DISCUSSION *by L. R. Taussig, San Francisco; James F. Percy, Los Angeles; Kendal P. Frost, Los Angeles; Moses Scholtz, Los Angeles; George D. Culver, San Francisco.*

We have treated in all sixty-nine cases of cancer of the lip with radium, of which sixty-seven were of the lower lip and two of the upper. There were sixty-six males and three females. One male and one female had cancer of the upper lip. The average age of all the patients was 51 years.

It has been possible to gain information, in a follow-up of sixty of the patients treated during 1917 and up to the present time. Forty-eight are still alive and apparently cured. It has not been possible to trace nine of the patients, several of whom it is reasonable to believe are deceased. Six of those traced are known to be deceased, and only two died from the effects of the cancerous process. One of these two was hopeless from the first, and the other, a man 84 years old, developed metastases and died. Another, a man over 80 years old and extremely feeble, already had metastases, but his lip healed perfectly and his death resulted from myocarditis. Still another, with a probable involvement of the lymphatics, was freed of his lip lesion and rendered more easily operable. This patient disappeared. An instance of probable failure was the case of one of the females, whose lip was not well when she disappeared. One case, still under observation by letter, is doubtful as to a complete cure. Three patients, recently treated, are under observation and doing well, but the time is too short to say if they are probably cured. At most, we can account for only six failures. One of these may not be a failure, as we have not yet seen the patient. This gives less than 9 per cent of failures in a group of cases disadvantageously selected, as many of the patients are sent to us as being inoperable, either from the advanced state of the growth or because of the physical condition.

THE ADVANTAGES OF RADIUM TREATMENT

When we first began the use of radium we feared to trust to it entirely, and we employed the curet and the high-frequency current pretty liberally, but we afterward found that this was usually unnecessary, and that it decidedly interfered with the perfection of the result.

In one respect the lip is particularly favorable for the employment of radium, as it is a flap organ and

* Presented to the Section on Dermatology at the Fifty-third Annual Session of the California Medical Association, Los Angeles, May, 1924.

therefore, with a little care, a crossfire irradiation can be given, which permits one to get nearly double the deep effect with the same surface exposure. The value of this may be appreciated when one reflects that burns are the result of such exposure.

Because of the compact size of the radium applicators they may be applied accurately to the lesion and may be retained in place for a long time. And because of the very short wavelets given off they penetrate very deeply into the tissue, and the compact form of the radium applicator permits screening out caustic corpuscles and the coarser wavelets.

THE TECHNIQUE

Unburied, heavily screened radium was used in all instances, and though needles were sometimes applied they were arranged on a screen as a plaque applicator and were never inserted into the lip. We have not used emanations. The end results with the radium have been so satisfactory that we are influenced to favor the methods we describe.

An attempt to so standardize the treatment of lip epitheliomata as to invariably repeat with exactness the dosage in milligram hours might lead to a failure through underexposure that could otherwise be avoided where one follows the plan of safe overexposure. We are not certain but that one of our possible early failures could be explained in such manner, and it is the only instance which gives us any regrets. A time limit, however, is a necessary point of decision, and with us it has become a definite factor, more constant than either the arrangement of radium used, whether in plaque, tube or needle, or the milligram strength. The necessity of a heavy irradiation has been uppermost; therefore an attempt has been made to use a sufficient amount of radium element in each instance. This is especially true since almost the entire dependence has been placed upon the effects produced by the gamma rays.

Twenty hours' time is the usual allotment, and whether the amount of radium indicated is twenty-five milligrams or one hundred fifty the hours of exposure do not vary greatly. The type, extent and situation on the lip of the epithelioma govern the amount chosen. Screening equivalent to form one to two millimeters of lead and two to four millimeters of rubber has been found most satisfactory, the thickness of metal used being greater or less according to the less or greater infiltration of the epithelioma treated.

Sometimes in what may appear to be a most hopeless case one may succeed with irradiation alone. A physician brought us a man of 75 years of age with a most extensive cancer of the lower lip, involving much of the cutaneous surface and, what was worse, extending well down into the mouth. It was inoperable both on account of the patient's age and because of the extent of the lesion. The result is excellent, and after one year without any further intervention the lesion seems to be definitely eradicated.

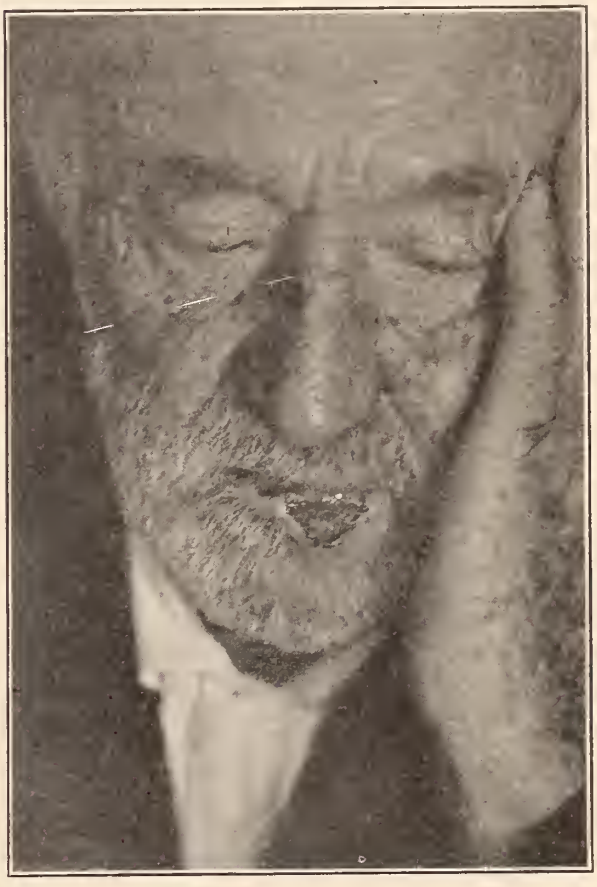
This case was treated as follows:

April 13, 1923—Radium plaque of 25.68 milligram strength with one 25-milligram tube on either side, screened with 1.00 millimeter Pb—4.00 millimeters rubber—applied to outside of lip. And plaque of 24.23 milligrams of radium screened with 1.00 millimeter Pb—4.00 millimeters rubber—applied to inside of lip—five hours.

April 14—Four 25-milligram tubes of radium were used on plaque of 1.00 millimeter Pb—0.4 millimeter aluminum and 4.00 millimeters rubber—saddling lip lesion—seven and one-half hours.

April 16—Two 25-milligram tubes screened with 1.00 millimeter Pb—0.4 millimeter aluminum—4.00 millimeters rubber—applied to summit of lip—seven and one-half hours.

April 17—Four 25-milligram tubes were used on plaque of 1.00 millimeter Pb—0.4 millimeter aluminum and 2.00 millimeters rubber—saddling lip—six hours.



Case of man 75 years of age, inoperable epithelioma. Eradicated with irradiation with radium.

As will be seen, the time was twenty-six hours, with radium plaques and tubes used interchangeably. Fifty to one hundred milligrams of radium element were applied. The screening in this case was not as heavy as in many others, as the extent of necrotic tissue, which in itself acts as a screen against the penetration of the gamma rays, was more extensive than usual.

It has proved advantageous to have the hours of exposure not stretch over more than a week's time, so that the irradiation may be finished before the lip becomes tender from the effects of the treatment.

It has been our practice to vigorously irradiate over the immediate lymphatic drainage area during the time the lesion itself is being treated. How much of a safeguard this is we do not know. Metastases

from lip cancers are not as frequent as is generally thought, but when present the outlook is extremely grave.

It may here be remarked that there is nothing more fallacious than to assume that an enlarged indurated gland, even though quite immovably fixed, is necessarily a metastasis. We have had quite a number of pleasant surprises where definite classic rules as regards the lymphatic glands had to be ignored.

REMARKS ON THE INDIVIDUAL CASE

In such a persistent diesase as epithelioma, with such varying degrees of malignancy, it is only natural that the interval between the application of the radium and the resultant cure should in some instances be characterized by variations from what we have come to consider the usual even course. One of our patients, a man of 54 years of age with a cancer in the median line of the vermilion border of the lower lip, and in whom healing took place leaving a depressed scar, in five months had a recurrence in the scar, which was subjected to another irradiation. After another three months an infiltrated area could be made out at the left extremity of the scar, which was subjected to another irradiation and which refused to resolve. This was curetted and found to be soft, friable and well walled off. The base was cauterized with acid nitrate of mercury and irradiated.

The growth of epithelial cells in this case impressed us as being slow and but slightly malignant, and probably this was the very reason that they were so insusceptible to irradiation, as we know that the softer, markedly embryonic cells are the ones that are susceptible. On the other hand, there is also a type of cell which is so swiftly growing and embryonic as to be too swift for radium or any other means to head off.

One of our possible failures was in a woman 75 years of age who had an epithelioma of the edge of the lower lip near the left corner of the mouth. It extended more internally than externally, which was a bad feature. After an irradiation it healed, but in two months a movable tumor could be felt in the substance of the lower lip directly below the site of the previous epithelioma. We advised its surgical removal, and we have not heard of the patient since.

This was the case previously mentioned as having been incomplete in its irradiation because of possible underexposure. More thorough crossfire irradiation with a larger quantity of radium might have attained success.

Much has been said about cuboidal celled and fusiform celled epitheliomas, especially in regard to treatment, and there is no doubt that the cuboidal celled epitheliomas yield to the influence of the rays of radiant energy much more readily than those of the fusiform type. Furthermore, one can often say clinically that a given epithelioma is definitely of the cuboidal type. One cannot be quite so sure of the fusiform variety. Now, however, we know that there are mixed forms in which both types of cells occur, so that the distinction has lost much of its value. In this regard we had a most interesting case of a band-like epithelioma four centimeters in length, which extended across the front of the red of the lower lip as a growth of cuboidal or rodent ulcer type, and curved inwards at the left corner of the mouth, where it ended as an acanthotic fusiform celled growth. This was one of our early cases, and besides treating the affection with radium we fulgurated the acanthotic area. With our present experience and technique we would now trust entirely to the radium and would expect to get a much more perfect lip than it is possible to get with any cauterant or surgical measure.

The more one uses radium in the treatment of lip epithelioma the more likely one is inclined to attempt the difficult, especially with a clear realization that careful irradiation need not jeopardize the patient's ultimate chance of recovery, even if surgery is later indicated.

An instance somewhat baffling was that of an elderly man who had a recurrence or a continuance of the cancer growth following a quack's treatment with a caustic paste. The lesion consisted of what clinically seemed to be partly cicatrix and partly epitheliomatous infiltration, involving the left corner of the mouth, both upper and lower lips and an area of the adjacent cheek tissue as large as a double unshelled almond. This tumor mass yielded to crossfire surface irradiation, leaving only soft scar tissue. Surgical interference has been unnecessary.

It is difficult to determine a definite percentage of cures, but at the most conservative estimate it exceeds seventy-five, and this estimate is made without barring the hopeless and very elderly patients treated. It can readily be seen that the number of known failures is small—less than 10 per cent.

It is our belief that a malignant growth of the lip that can be successfully treated by any of the known methods can be more surely eradicated by the use of radium, either alone or in combination with whatever other means may be indicated, and the perfection of the cosmetic functional result cannot by other methods be equaled.

323 Geary Street.

DISCUSSION

L. R. Taussig, M. D. (380 Post Street, San Francisco)—At the University of California clinic we have felt for some time that radium treatment of carcinoma of the lip was justifiable and at least equal to surgery in the average case. The disadvantages of radium are the time it takes and the lack of microscopic verification of the diagnosis. The first disadvantage is not often insurmountable. The second is more embarrassing, particularly in the case of a very early lesion. The disadvantage of surgery is the removal of a very considerable portion of normal tissue with frequently considerable scar formation. Some of my surgical friends point out the fact that they see now and then cases treated by radium unsuccessfully. That is certainly a poor argument, as we who use radium are at times confronted with failures of the surgeon. Our technique differs somewhat from Dr. Culver's, principally in the fact that we use less screening and less time, making use of the more penetrating beta rays. For very small lesions we frequently do not exceed 80 milligram hours with a full strength plaque screened with 0.3 millimeters of brass. For rather large, deep lesions we occasionally use buried unscreened emanation. This is an effective but severe form of radiation, producing considerable deformity and healing very slowly indeed. We feel that the cervical region should be rayed with x-ray in all cases of infiltrating carcinoma of the lip and that cervical

glands should be surgically treated when and if they become apparently involved.

James F. Percy, M. D. (1030 South Alvarado Street, Los Angeles)—I was greatly interested in the statement of the essayist to the effect that cancer of the lip can be more certainly eradicated by radium than by any other known method. Unfortunately none of us are sure that they are correct when they say this. At least, the time has not yet arrived when it can be said without fear of successful contradiction.

For some years I have been treating cancer of the lower lip that has not reached the deforming stage by rather wide excision of the mass with my cautery knife. This is done without an anesthetic either local or general. In the extensive cases I infiltrate heat in addition to the excision and a general anesthetic is employed. If the average case of lip cancer is removed with the cautery and no sutures employed, the lip will reform to practically its normal status within three months. So that the cosmetic and functional results are much better than can ever be hoped for even from radium. In addition, I have the advantage of submitting the removed tissue to the pathologist. The cautery also eliminates the danger of both dissemination and stimulation of the malignant cells during their removal. There is always a real possibility that the pathologist will show that the mass was syphilis, tuberculosis or some other growth due to a blastomyces and not to cancer. I have seen a number of instances of this character where the initial treatment had been radium and the x-ray. We will never know where we really are in the treatment of cancer by radio-active agents until all the work can be checked by the laboratory.

As a rule, after the use of these agents surgery can do nothing. The remaining tissues are so devitalized that they are not regenerated well, and if surgery is necessary little can be done in the way of plastic because the repair cells are too thoroughly crippled.

Inoperability was also referred to. It is rarely stated as it should be that this always refers to operation with the cold steel knife. I see and operate cases about the head with the hot knife that are so extensive and hopeless that neither radium nor the x-ray had anything to offer them. Indeed, many had already received the limit from these agents. An appreciable percentage of these apparently terminal patients also make a smooth and comfortable recovery and remain free from recurrence or metastasis for a surprisingly long time. They were dying not from cancer, but from chronic sepsis.

The authors have called attention to an important fact that metastasis from lip cancer is not frequent. Crile puts it at less than 2 per cent. Not a few have whipped out the malignancy in their ulcer or tumor, but the sepsis was destroying them. When sections are made from the growth of this character no cancer cells will be found, and sometimes not even mitotic figures. Cautery knife excision will give beneficial results in some of these cases unbelievably excellent and undreamed-of heretofore. More than this, as soon as a small accessible recurrence is noted the hot iron can be reapplied usually without an anesthetic for the reason that the nerve supply has not become re-established in an efficient way. This cannot be done with any especial expectation of benefit with either radium or the x-ray. The heat treatment always benefits, only an unavoidable accident can make them worse.

Prophylactic irradiation of the immediate drainage area was referred to, and the statement made that it was yet unknown whether this was a safeguard or not. Personally, I also do not know. In the last two years easily 95 per cent of cases of cancer about the head had a full course of radium and x-ray when they were referred with the hope that the cautery offered something in the way of relief from what the radiologist seemed to believe was merely a failure of the tissues to heal incident to the employment of the radium. Indeed, I have been assured by those who had previously treated these patients that I would find no carcinoma following the use of the radium and x-ray; that all that was needed was the application of the cautery in order to stimulate healing of the radium devitalized structures. In every one of these cases the pathologist reported, in the tissues that I removed with the cautery knife, an undiminished number of active cancer cells. Not infrequently there was also a pathological fracture of the jaw.

There may be certain types of higher grade malignant cells that resist radio-active agents. If so, we have got to standardize our cases with the aid of the pathologist as a preliminary to the treatment of malignancies about the head with these agents. All types of cells, however, are equally vulnerable to, and destroyed by, the heat of the cautery.

Kendal P. Frost, M. D. (Pacific Mutual Building, Los Angeles)—Epithelioma of the lip is more or less of a bugbear to all of us. I think there is a tendency for us to emphasize failures in methods which we are not ourselves employing. There has consequently been more particular rivalry in this regard between those advocating surgery and those advocating radiotherapy. In my opinion the results from radiotherapy are difficult to improve upon with other means.

I have had some experience with both x-ray and radium in treatment of these lesions and believe that the average case which is suitable for radium can be successfully handled with x-ray. It has considerable advantage over radium in the element of time.

Remarks on treatment of cancer of the lip are always timely, and I am sure that we all appreciate the author's careful observation and conservative point of view.

Moses Scholtz, M. D. (Brockman Building, Los Angeles)—The advocacy of radium treatment in cancer of the lip as the method of choice can be accepted with certain reservations. Radium is unquestionably one of the very best therapeutic agencies at our disposal for the control of skin cancer. However, the claims that its results are superior to any other method can be accepted only in reference to certain selective types of lip cancer, but not as a general statement. Many cases of lip cancer can be treated successfully with surgery, various forms of electro-cautery and x-ray. X-ray particularly can duplicate cosmetic and clinical results claimed by radium. Where time is a factor of importance, x-ray, of course, has advantage over radium. On the other hand, in certain localization, such as near the eyes, radium is not only preferable, but may be obligatory.

As to the alleged greater safety of radium over x-ray, I believe it is generally accepted at present that the actinic value and efficiency of both these agents are essentially the same and the effects differ only with the quality and quantity of the respective rays used. From this point of view, the safety margin of x-ray and radium does not show any appreciable difference. Radium is equal to x-ray in its clinical control of skin cancer, but it can hardly claim any superiority over x-ray save in selective individual cases, for special technical advantages of application.

Doctor Culver (closing)—The discussions are varied and excellent. One is helped greatly by another's point of view, even if he remains as enthusiastic about his own.

I am compelled to argue the point raised by Dr. Percy, that the "cosmetic and functional results following the use of the cautery are much better than can ever be hoped for, even from radium," for to as much as equal those obtained through radium, by any other method, would necessitate results as near to perfection, following the destruction of tissue, as the human mind can imagine. It is this nearness to perfection that stirs the enthusiasm of the worker with radium to such a high pitch.

I do not condemn the use of the cautery, nor other surgical intervention. In fact, I believe that a close co-operation with the surgeon in the use of radiant energy is quite to be desired. One, however, should not be so enamored with his own particular procedure that he will fail to grasp something better.

We have become thoroughly convinced that our best results have been obtained through the use of the gamma rays of radium, and this of course necessitates long applications of heavily screened radium salts.

EDITORIALS

NATIONALIZING CHILD-BEARING

It is a well-known fact that the percentage of physicians who will practice obstetrics is decreasing. The decrease has been noted more particularly recently when many physicians, including some in general practice, have announced their retirement from this type of practice. Why? We started out to find the answer by personal conversations and communications. There are several reasons, the most important being: It is a particularly difficult and *normally* hazardous specialty of medical practice. The difficulties, and even the dangers, have lately been increased by meddlesome interferences of several varieties.

Mail Order Service — There are several magazines with large circulations whose "doctors" sit in their offices and tell prospective mothers by mail what to do and what not to do. They do not and, of course, cannot know that some of these women have deformed pelves, latent tuberculosis, infection either of the blood or the birth canal, crippled kidneys, or any of the other and many physical and mental conditions that are destined to influence materially the outcome. They, therefore, give their stereotyped advice to all alike. It often is harmless enough, consisting as it does chiefly of quoting the ten commandments of health. But it is often particularly and peculiarly dangerous because many mothers accept it as all the advice and assistance they need. Too many of them charge their personal physician with incompetence because he does not agree with the celebrated specialist who heads the medical department of the latest fashion magazine. Similar services of national character are conducted by several other "clubs," "health services" and other organizations.

Some of them start early. Through press-clipping services, they get daily reports of marriages from all over the country, and the poor bride hardly gets home from her honeymoon until she begins to be bombarded with "medical advice." The salesmanship expressed in "confidential letters"—made in hundreds of thousands by modern duplicating machines—are flatteringly and appealingly done. This form of medical practice is cheap. Sometimes it is only necessary to subscribe to the particular publication, but more often there is a small fee to join some sort of a mothercraft club.

The Federal Government, through its Sheppard-Towner service, belongs in the same class as the other national better mothers' services. They are better financed—out of your taxes—so that they not only bombard the world with their canned health stuff, but they have full-salaried and traveling-expenses paid agents who travel like drummers for dry-goods houses. They not only sell directly, but they distribute through a score of intermediary government and other distributors.

Some state, and even county and municipal governments and lay organizations, are going more and more thoroughly into this game of practicing midwifery by mail. They not only are distributing centers for the national "specialists," but they "roll their own," as it were.

We have a collection of this canned stuff that is worth the serious comment we propose to give it in due time. Just recently our assistance was asked to secure a law in California to require more prompt reporting of marriages, births, and deaths to government bureaus. These people were such amateurs at the game of practicing medicine by mail that they did not know that one profitable phase of press-clipping services was in collecting this data from all newspapers and delivering it daily.

Personal Services—These follow closely the lines of the practice of medicine by mail. The leader in the movement is the Sheppard-Towner people. They are active with agents widely scattered over the country collecting salesmanship material for publication and organizing, organizing, organizing. They are good at it, too. So good that very soon it will be impossible for a girl to marry without being placed upon scores of mailing lists and personal government call-lists for free advice and free assistance that will serve her in preventing, limiting or producing a family, and advising her which status it is her duty to assume.

Midwives—A considerable element of the influences we are discussing in this and other countries are promoting a movement for "more and better midwives." One country where medicine is already largely nationalized and where some 65 per cent of mothers go through this most dangerous and trying period assisted by midwives, recently issued a brochure, pointing with pride to the fact that they had increased the "education" required of these specialists from nine months to a year above grammar school!!

Some 10 per cent of the mothers of California are given this class of service plus the various services mentioned above. A doctor must study, and study hard, for eight years above high school before he is allowed to practice this difficult specialty of medicine. Even then he recognizes his limitations. Why should he accept the added worry and responsibility of counteracting the organized and well-financed interference of the agencies of a paternalistic government operating without cost to the patient through salaried and often incompetent agents who are in the main indifferent to or opposed to him, his work and his policies.

Legislative Methods—Laws follow movements. *The tendency in maternity work is to more and more restrict and embarrass the physician in his personal service to his personal patient and to open wider and ever wider the opportunities to government supervision and control.* Laws already exist in some counties in addition to Soviet Russia that, to all intents and purposes, nationalize motherhood. Step after step in this direction is being taken in England. Recently, a report of the Ministry of Health of the Empire and another report by the Scottish health authorities recommended advanced steps in this direction.

In commenting upon these reports editorially, the British Medical Journal cautions that "official in-

quiries might easily arouse the antagonism of practitioners, and might tend to become formal and useless; they might, indeed, easily be made to do more harm than good, for if resentment is once aroused the team work essential to the lowering of the risks of child-bearing will become impossible. . . . It may strike many who already find the burden of a big midwifery practice too heavy to bear that the result of such proposals would be to dispose them to cast it aside altogether."

Laws of similar import and purpose are frequently before our national and state legislatures. Every so often one of them becames a law. There are more of them coming, as anyone can see, and they all tend in the one direction. There are other explanations why so many physicians refuse to practice the difficult specialty of obstetrics, but the chief ones are indicated.

There always will be a majority of people who want the services of physicians of their choice to attend them when they need health advice and assistance, and there always will be enough qualified physicians to render that service upon the same personal basis and in the same confidential, sympathetic manner that has ever characterized the service of the true physician. In the meantime, no matter who you are, there is no protection against the officious and annoying free services of a paternalistic government nor the hordes who have something to sell.

On the day a girl's marriage is published, she becomes a "mail prospect." From the day the birth of her child is published or reported as required by law, she not only becomes the "mail prospect" of scores of "mail-order" doctors "interested" in her and her child, but is also on both the "mail prospect" and the "agent call-list" of beneficent paternalistic government bureaus, national and state.

CALIFORNIA MEDICAL ASSOCIATION CONDEMNED BY THE HEALTH OFFICERS' SECTION, LEAGUE OF CALIFORNIA MUNICIPALITIES

The Health Officers' Section of the League of California Municipalities, at its meeting October 6 to 9 at Asilomar, with a few public health "officers" and several other people present, condemned the California Medical Association in the following resolution:

"Be It Resolved, That the Health Officers' Section of the League of California Municipalities views with regret the apparent policy of the California Medical Association, through its official journal, to approve rational and advanced measures for the prevention of disease and the protection of the communities of this state against epidemics instituted by state and local health departments. We feel that the selfish, intolerant, and antagonistic attitude reflected in a recent editorial, entitled 'Short-Sighted Public Health Policies,' does not represent the opinion of the medical profession as a whole, whom we believe to be actuated by the highest scientific and humanitarian principles. We protest against this misrepresentation of the profession of medicine by the present editorial management of the Journal."

The editorial referred to in the resolution was published in the September number of CALIFORNIA AND WESTERN MEDICINE, page 461. That editorial is worth reading again in connection with the *rebuke* administered by this League.

The editorial was based upon a resolution passed unanimously by the Monterey County Medical Society, the same county in which the League of California Municipalities held its meeting. Additional evidence was obtained from letters and personal interviews with doctors who were *licensed* to practice in that county. The essence of the complaint was, that an unlicensed public health officer was practicing personal medicine among the citizens of the county.

There was, of course, nothing in the editorial which in any way tended to discourage "rational and advanced measures for the prevention of disease," nor anything that reflected in any way upon the legitimate practice of public health by licensed doctors of medicine, making that particular field of medicine their specialty.

The editorial had the official endorsement of the California Medical Association before it was published.

If there are any physicians in the state who heretofore were disinclined to believe that the political element of public health medicine, as distinguished from personal health medicine, was deliberate and intentional in its attempts to control the practice of medicine, both preventive and curative, this resolution ought to open their eyes sufficiently.

As stated in the original editorial, many of the educated, *licensed* physicians of the state, including members of the California Medical Association are engaged in the practice of the highly commendable specialty of public health medicine. Some of these are paid salaries for devoting all of their time to this variety of practice, and many others are making personal sacrifices by giving part of their time to public health medicine for a pittance.

Most of these physicians, being members of the California Medical Association, are obviously included among those condemned in the resolution criticizing the official action of the California Medical Association, as expressed in an approved editorial. Public health doctors of this class were among the first to call our attention to the procedures aimed at in the original editorial, and have continued to supply us with information. It was partly in their defense that the editorial was written, but primarily it was designed to protect the public against the practice of personal medicine by *unlicensed* public health *"officers."*

It would be interesting—and we may do so later—to publish all of the story that led up to the action of the Monterey County Medical Society and the publication of the editorial, together with the story of the health "officers" league, who promoted it and voted for it and why.

We shall require additional evidence before accepting the implication in the resolution that the State Board of Health, made up as it is of members of the California Medical Association, were a party to the resolution.

YEA VERILY, THEY ARE TAUGHT

As "the proof of the pudding is in the eating" so may the truth of health education be found in the uncensored questions from those taught. In one school where "social hygiene" seems to be quite thoroughly and sympathetically taught, the teacher, in discussing her problem in sex education, gives a list of twenty-six questions as samples of those asked her by the school children. They are:

1. What is afterbirth?
2. How should a woman care for herself during pregnancy?
3. Symptoms of pregnancy.
4. Cause of birthmarks.
5. Cause of irregular menstruation.
6. Can sex be known before birth?
7. Is there any way to tell whether a man is diseased?
8. Why doesn't pregnancy follow every sex intercourse?
9. Can syphilis be cured?
10. How should a bed be prepared for childbirth?
11. Should a person choosing a husband count on what kind of a man he was; if he is healthy or diseased?
12. If a small child should ask where children come from, what should you tell so as not to lie?
13. If you have had sexual intercourse before marriage, but have made up your mind to live a clean life, and a good man wants to marry you, can your past be kept secret from him? Will he know whether you are virtuous or not? Ought he be told?
14. If one or both ovaries have been removed, ought a man be told before marriage?
15. Is intercourse before marriage a sin?
16. Is intercourse during pregnancy wrong?
17. If mother or father has venereal disease, does a child always get it?
18. Is it a crime to prevent birth of a child (abortion).
19. Is it wrong to prevent conception? Will it hurt your health or happiness?
20. Why are men more passionate than women?
21. What is the cause of sterility?
22. Why do people crave sexual intercourse?
23. What is meant by a man having spiritual inhibitions?
24. Is it right for a girl to have a man arrested for her pregnancy, if there has been no breach of promise?
25. Why is sex so exciting to some people, and not to others?
26. How often should a person have sexual intercourse?

In the same number of the same magazine (Journal of Social Hygiene) is published a resolution by an important body which sponsors teachings which produce results such as pictured in the questions given above:

"In view of the vital importance of sex hygiene to the nation and since, owing to the lack of sound teaching, children and adolescents are at present acquiring a vitiated knowledge of this important subject, it is, in our opinion, urgently necessary that the state, through the ministry of education, should take steps to insure that every boy and girl in school should acquire biological and physiological instruction in sex and sex relations. They should also have ethical guidance as to the duties, privileges, and responsibilities of parenthood and the right way of living the sex life, together with some warning concerning the physical, mental, moral, and racial dangers which attend any lowering of the standards of sex morality."

PHYSICIANS' EXCHANGE SERVICE

Personal and public health medical literature seems to indicate a rather widespread movement of physicians' exchange service. "When a physician is needed in an emergency and cannot be located, the circumstance works to the disadvantage of both the practitioner and his patient," says one publication.

The physicians of Rochester, New York, are among the latest to establish one general exchange which is operated by the doctors themselves through a common switchboard. All any patient or other person wishing a physician has to do is to call Glenwood 1400 and then ask for his physician, and the operator will locate him promptly, or if a doctor is to be absent for several hours, he leaves instructions with the exchange as to who is to be called in his place.

One of the best of the physicians' exchange services has been operated by the Los Angeles County Medical Association for several years. This, so far as we know, was one of the first to be established. It was conceived and put into operation by Doctor George Kress, when he was secretary of the association, and it has been carried forward by Doctor Harlan Shoemaker, the present executive of the association.

After studying the benefits to be derived from one great central, it is remarkable that this movement has not become more widespread and popular long before this. It is a very great convenience to all physicians, and an even greater convenience to the general public. If large groups of doctors and members of county medical societies would get together and establish such service, the individual expense would be small and prompt service would be assured. Every county medical society that has more than fifty members in any one place should have one of these centrals.

THE ALLEGED SELECTIVITY OF SALICYLATE FOR INFLAMED AND RHEUMATIC JOINTS

Among various theories of the striking action of salicylate in rheumatic fever is the alleged predilection of this drug for the inflamed and infected joints. That is, it is claimed by some that actually more salicyl appears in the diseased joints of this condition than would occur in normal joints. Just how the rheumatic joints would benefit by the presence of more salicylate is not clear, because the salicyl occurs in the body as sodium salicylate which is not antiseptic, and even if it existed in the form of salicylic acid, the concentration necessary for antiseptic action would have to be higher than that compatible with safety. Besides antisepsis, other factors might be responsible for the benefits, providing it were true that salicyl is selectively taken up by the joints of arthritis. The considerable exploitation of this theory for the action of salicylates in rheumatic fever,

and also for the basis of a law in pharmacology, has not met with approval in certain quarters.

It is, of course, the concentration of salicyl in the joints as compared with that of the circulating blood that matters, and not the relative amounts in normal and diseased joints. Since the effusions of diseased joints, infected or inflamed or both, are derived from the blood, they would be expected to contain a greater absolute quantity of the drug than normal joints with their minimal amount of fluid. Except for the oversight of this important consideration, Bondi and Jacoby several years ago published experimental results on the distribution of salicyl in the joints of normal and infected rabbits, and thought they demonstrated the predilection of this drug for diseased joints. In fact, Bondi and Jacoby believed they discovered an important pharmacological law, namely, that pathological conditions inherently and characteristically modify the distribution and action of drugs. However, the character of the data of these authors scarcely warranted their conclusions, because they were based largely upon qualitative tests, which they employed, instead of quantitative estimations which are indispensable to the solution of such a problem. Although much has been made of these experiments of Bondi and Jacoby by text-book writers and investigators in various lines, it is apparent that they are wholly uncritical and unsatisfactory. The idea which they advanced was, nevertheless, an attractive one and stimulated investigations with drugs in various pathological conditions, though most of the results could have been predicted from a knowledge of the changed conditions. Recently, the distribution of salicyl in diseased joints has been investigated again by Fröhlich and Singer of Vienna.

The experiments of Fröhlich and Singer differ from the older ones of Bondi and Jacoby. In fact, they are an improvement. The Viennese investigators produced inflamed joints by the direct application of mustard and croton oils. The joints of one side were used for the experimental arthritis, while those of the other side served as controls. Then the animals were given large doses of salicylate, and the drug was estimated quantitatively in both sets of joints. The results showed no important differences between the inflamed and purulent, and the normal joints. There was frequently less salicyl in the inflamed than in the normal joints of the same animal, indicating that the swollen and inflamed membranes of the synovia acted as barriers to diffusion of the salicylate, if anything. No mention is made of the salicyl content of the blood by these authors.

As far as rheumatic fever is concerned, the distribution of salicyl in blood and the fluid of the inflamed joints in the same patient had been studied by Scott, Thoburn, and Hanzlik, several years ago. The concentration was found to be the same in both, namely, about 0.02 per cent, and sometimes less in the joint effusion than in the blood. Hence, the recent results of Fröhlich and Singer on rabbits agree with the older ones of Scott, Thoburn, and Hanzlik on patients. They show conclusively that there is no predilection of salicylate for the inflamed joints of experimental animals and those of rheumatic fever in patients, and furnish no evidence of a pharmacological law indicating characteristic differences in drug behavior owing to pathological changes. As far as the mechanism of the beneficial action of salicylate in rheumatic fever is concerned, that is another matter and probably independent of any alleged specificity or selectivity of the drug.

Bondi and Jacoby: Beiträge z. chem. Physiol. u. Pathol., 1906, 7:514.
Fröhlich and Singer: Arch. exp. Path. Pharm., 1923, 99:185.
Scott, Thoburn and Hanzlik: J. Pharm. Exp. Therap., 1917, 9:217.

SHALL THE RICH PAY MORE?

The question of whether the amount of a physician's fee should vary with the patient's financial condition never has been settled to the satisfaction of all. Physicians usually calculate their charges in accordance with one or more of the following methods: (a) A fixed fee schedule of charges for all alike; (b) an optimum fee schedule on which all charges are made and from which discounts are made to meet varying financial conditions of patients; (c) a fee schedule based upon what the physician considers his time worth. Patients who can't afford the schedule are not given discounts, but are treated free and the rich are charged extra.

All people have an interest in this problem from the standpoint of economic justice. Physicians have the additional responsibility of expressing its fairest solution in the ethics governing their conduct. Friendly arbitration or the law must furnish the final decision where controversy prevents more amicable adjustments. The vast majority of physicians calculate the value of their services from a more or less elastic personal fee schedule which changes from time to time, depending upon the usual conditions governing life. Nearly all physicians also discount their fees from 10 per cent to 100 per cent for a considerable percentage of their patients.

An inquiry upon this point submitted to a series of successful physicians recently brought the information that they collected what they considered their services worth from only about one-third of their patients; another third paid part fees, and about one-third of their services were rendered without compensation of any kind. The California Medical Association has taken an advanced stand upon the question of fees by passing a resolution endorsing the plan of charging fees in accordance with the patient's ability to pay, from nothing up to what each physician recognizes as his personal fee schedule. If this practice were more generally employed and more generally understood by the public, every physician's office would become a "medical center," or a "health center," or a "clinic" of the very best kind. Of course, there are a few physicians who have reached that far from enviable position in public opinion whereby they can—and a few of them no doubt do—conduct the practice of their profession upon a cash register basis. However, there are plenty of the other kind—and good ones, too. Comparatively few physicians actually charge wealthy patients extra high fees. However, some do, and the subject is often discussed both by physicians and the public in general.

An editorial in a recent number of The Lawyers'

Magazine reviews the question of "Making the Rich Pay More" in an authoritative and interesting manner. The editorial states:

"An English judge is reported, not long since, to have upheld the right of a physician to charge a wealthy patient more than he would ask a poor man for similar services.

"There seems to be a conflict in the authorities, in this country, as to whether it is proper to prove the value of the estate of a person for whom medical services were rendered, or the financial condition of the person receiving such services, in estimating their value, in the absence of an express contract. Some decisions favor the admission of such evidence. Haley's Succession, 50 La. Ann. 840, 24 So. 285; Czarnowski v. Zeyer, 35 La. Ann. 796; Schoenberg v. Rose, 145 N. Y. Supp. 831. In other jurisdictions, however, such evidence may not be considered. Robinson v. Campbell, 47 Iowa, 625; Swift v. Kelly, Tex. Civ. App., 133 S. W. 901.

"In determining the value of professional services rendered, testimony as to the value of a deceased patient's estate has been held inadmissible in the absence of a recognized usage obtaining to graduate professional charges with reference to the financial condition of the person for whom such services are rendered, which had been so long established and so universally acted upon as to have ripened into a custom. Morrisett v. Wood, 123 Ala. 384, 82 Am. St. Rep. 127, 26 So. 307.

"On the question of the value of services rendered by a physician, it is stated by the court in Lange v. Kearney, 21 N. Y. S. R. 262, 4 N. Y. Supp. 14, affirmed in 127 N. Y. 676, 28 N. E. 255: 'There is also evidence tending to establish a custom or rule of guidance as to charges of physicians for services rendered, and which makes the amount dependent upon the means of the patient, his financial ability, or condition; but this is a benevolent practice which does not affect the abstract question of value, or impose any legal obligation to adopt it, and cannot be said to be universal on the evidence. Indeed, there does not seem to exist any standard by which, in the application of the rule, the amount to be paid can be ascertained.'

"Whatever may be the true principle governing this matter in contracts, the court, in one case at least, is of the opinion that the financial condition of a patient cannot be considered, where there is no contract, and recovery is sustained on a legal fiction. Cotnam v. Wisdom, 83 Ark. 601, 119 Am. St. Rep. 157, 104 S. W. 164, 13 Ann. Cas. 25, 12 L. R. A. (N. S.) 1090."

The problem of physicians' fees is now much in the public eye everywhere as a result of the recent controversy between the Ford hospital authorities, on the one hand, and those of the Medical Society of Detroit Academy of Medicine, on the other hand. The Ford hospital appears to be conducted upon somewhat the same basis that a factory is conducted. Costs of service are accurately figured and charges are made to all alike upon that basis, regardless of the patient's ability to pay. This, insofar as his private hospital charges are concerned, while much criticized upon ethical grounds, is nevertheless conceded to be Ford's business.

The trouble seems to be that, in order to reach machine perfection, a definite price was fixed for each medical and surgical service, and there was to be no more flexibility in that charge than in the charge for the rent of a room or the price of an automobile. Doctors not on the salaried hospital payroll objected—and properly so—to the principle involved. Nevertheless, if we understand the situation, Ford is doing precisely what insurance companies (life and accident); governments (national, state, and local); hospital associations; life extension institutes; fraternal organizations, with sick benefits; clinics of the pay species, and many, many others in the medical field are doing.

The controversy is as old as man, and it is no nearer a solution now than it was a generation ago. The fundamentals are clear, but are usually overlooked. It is primarily a question as to whether the promotion of health and the prevention and treatment of disease is to be carried on as a private arrangement between agent and consumer or whether it is to become a great organized public utility where everyone is served like they are by a transportation system, for example: Buy your ticket or secure a free pass and ride on the train that is available and accept the conductor you happen to draw.

It is interesting in this connection to inform our members that there is a movement on foot to try to have the next California legislature declare health and medical service to be a public utility and thus place its supervision under control of the state. What are you going to do about it?

DO YOU WISH TO DISCUSS PAPERS PUBLISHED IN CALIFORNIA AND WESTERN MEDICINE?

Some two years ago a new method of discussing papers published in California and Western Medicine was instituted. Instead of publishing the offhand extemporaneous remarks made at the medical meeting at the time the paper was presented, the finished copy of the manuscript has been and is being sent to discussants, who consider carefully and write what they have to say.

This practice quickly became so popular that, in order to give all members who wished it a chance to discuss papers, a reply postcard was sent to our mailing list in California, Utah and Nevada. This card simply asked the member if he wished his name added to the list of discussants of papers, and if so, he was asked to check from some sixteen headings the subject or subjects he would like to discuss.

Some 4500 cards were sent out; many of them returned the reply part of the card unsigned. A few indicated that they were not interested and two criticized the movement. All others indicated their desire to discuss papers and checked from one to four specialties and subjects they were interested in. This list has been tabulated under headings, and manuscripts are divided up between them, in accordance with the subject of the paper. The author of a paper is also given the privilege of naming one or more discussants. The results you are seeing in every number of California and Western Medicine.

There are constantly in circulation from twenty to a hundred manuscripts, and as the work has evolved we figure that from six hundred to a thousand physicians will express themselves briefly upon important subjects of medicine every year.

There is no mistaking the value of this service to the cause of better medicine, nor to both authors and discussants. This is proved by the hundreds of com-

mendatory letters from authors, discussants, readers and advertisers. Another pleasing feature is the letters we receive from those who failed to answer the invitation, wanting to know why they are not given a chance to discuss papers.

One of the main purposes of this editorial is to again emphasize the fact that the invitation is an open one. If you are not now on the list and want to take part in these discussions, send in your name, address, and the specialties of medicine, including public health medicine, or other subjects you are interested in.

The specialties and subjects included in the original invitation for checking were:

General Practice (Family Physician).

Medicine and Medical Specialties: General Medicine (The Physician), Pediatrics, Communicable Diseases (including tuberculosis), Neuropsychiatry, Dermatology, Tropical Medicine.

Surgery and Surgical Specialties: General Surgery (The Surgeon), Otorhinolaryngology, Ophthalmology, Urology, Orthopedic Surgery, Anesthesiology.

Obstetrics.

Industrial and Group Medicine.

Dentistry.

Pathology and Clinical Laboratories.

Radiology and Radium.

Public Health.

Technical Specialties: Nursing; public health nursing; medical social service; physiotherapy; dietetics; pharmacy; library; clinical records; laboratory technicians.

Medical Economics, including organization, legal medicine and similar problems.

A NEW HOSPITAL BOND

A Commendable Effort to Solve the Costs of Illness for Those of Limited Means

The National Surety Company of New York are promoting the sale of what they call a Hospital Bond, which has many attractive features and some limitations, but on the whole is calculated to do much for the cause of better health.

After painstaking investigation and thorough consideration by the officers of the California Medical Association and the League for the Conservation of Public Health, a half-page advertisement of this bond has been accepted by both California and Western Medicine and Better Health magazines.

This type of insurance is, so far as we know, entirely new in the health field. The same thought has been embodied in insurance in other human activities, of course, for many years. The essential features of the bond are, that any person under the age of 60, who believes himself to be in good health, can, by the payment of annual premiums of from $6 to $15, have all hospital expenses in any hospital in the United States or Canada paid by the National Surety Company, up to the value of the bond, which covers one year's period of time. The value of the bonds vary from $360 to $900. A person, for example, for an annual premium of $15 is entitled to a maximum of $900 per year of hospital service, including all features of medical care that are part of the hospital fees as distinguished from doctors' fees and special nurses' fees. It is provided that the weekly payment shall not exceed $70 in any one week, but the patient may stay in the hospital as long as he pleases on any one occasion or be admitted as often as necessary in any one year, provided only that the cost of hospital care does not exceed $900 for the year, and does not exceed $70 in any one week.

This bond is remarkably free from restrictions, limitations, ifs, ands and buts that usually characterize nearly all so-called hospital association provisions and sickness insurance contracts. It does have certain limitations, and some of these call for fair and wise adjudication between the company, the hospital, and the patient. For example, the bond excludes people who are suffering from insanity or nervous disorders; tuberculosis; drug addiction or alcoholism. There are, of course, opportunities for controversy over the interpretation of some of these as well as one or two other clauses in the bond. However, all fair-minded people will recognize that certain limitations are essential to avoid excessive abuse, and the wording used in the present bond, if fairly and wisely interpreted, ought not cause any particular confusion.

The bond has many especially commendable features. It gives the widest latitude of choice to the patient in the hospital selected, and raises no question about who his attending physician is. It includes, when billed as part of the hospital service, x-ray examinations, laboratory work, operating-room charges, including those connected with anesthesia, and many other of the most expensive and necessary services called for by a patient in a hospital. In fact, the bond seems almost too good to be true, but it must be remembered that it has an old, strong financial organization behind it, and one well known for the fairness and honesty with which it conducts its business.

Under this bond, any person by the payment of from 50 cents to $1.25 a month can secure absolute protection against the most expensive part of medical care.

Hospitals will like this bond because it insures them their regular compensation and prompt payment for all patients holding the bond. Physicians will like it because, by taking care of the largest item of expense incident to illness, patients will have more funds with which to pay the doctor a reasonable fee. Almost all good doctors now ask their patients in limited circumstances first to pay the hospital and nurses, before considering their demands at all. All too frequently after this is done there is nothing at all, or very little, left for the doctor.

Patients ought to, and undoubtedly will, like the bond, because for a small premium it insures them care that many of them cannot now afford; obviates the necessity of appealing to community charity, and allows them to retain their self-respect. Perhaps even more important than this, it allows the patient the widest choice of the physician who is to serve him, as well as the hospital in which he is to be served.

If this bond is properly promoted and the settlements under it generously interpreted and promptly liquidated, it ought to do an infinite amount of good in the campaign for Better Health for Everybody, with payment assured for those who serve.

California and Western Medicine and Bet-

TER HEALTH, in accepting this advertisement, invite comment and criticism from hospitals, doctors, and patients as to the satisfaction they receive under its operation. We wish to announce publicly, as we have told the representative of the Surety Company, that, so long as interpretation and service are above reasonable criticism, we will be glad not only to carry their advertisement, but to promote them in every way possible, because we believe the principle they are operating under to be sound and highly commendable.

This editorial has been considered and the policy outlined approved by the executive committee of the California Medical Association and the Hospital Conference of the League for the Conservation of Public Health.

C. M. A. DIRECTORY

The directory of the California Medical Association has been sent all members with an accompanying request for correction of errors and omissions. Names of members who have paid their dues since October 1 are not included.

Hereafter, annual directories will be issued in January of each year, beginning with 1926, and will include names of all members for the preceding year.

The directory contains the names and addresses of all members of the California Medical Association arranged alphabetically and by counties, together with the names and addresses of all officers of both state and county associations.

Copies may be obtained for $1 at the offices of the California Medical Association, 1016 Balboa building, corner Second and Market streets, San Francisco, California.

1925 SESSION OF THE C. M. A.

The Fifty-fourth Annual Session of the California Medical Association will be held at Yosemite National Park from May 18 to 21, inclusive. The Council has again set the opening day on Monday, that members who desire to see the park may leave their offices on Saturday and so have an entire day free from any scientific meetings for the enjoyment of the grandeur and beauty of Yosemite Valley.

Yosemite Lodge is our convention headquarters. Reservations will not open until March 1. In succeeding Journals, more detailed information concerning reservations and scientific program will be furnished.

At this time, it is desired to call the attention of those members who wish to present papers at the next annual meeting, to the fact *that section programs are closed as of February 15, 1925, in order that this office may have the necessary time in which to check the eligibility of members presenting papers and prepare the program for publication.* It is desired to emphasize the fact that only members in good standing may present papers, and that but one paper may be presented by any one member. He may, however, collaborate with another member and his name be so published, but the paper must be read by his collaborator.

Members whose names appear on the program and who are unable to be present must notify the secretary in ample time to permit him to replace the omitted paper by another from his waiting list. Many sections are unable to furnish space for all papers sent them in the three-day session allowed each scientific section. In view of the fact that omission of this notification often debars another member from a place on the program, a ruling has been passed that any member failing to so notify the section officers of his inability to present a paper at the state meeting and to furnish sufficient excuse for such inability, is debarred from participation in the two succeeding meetings of the State Association.

RULES REGARDING DISCUSSIONS AND PAPERS

Upon recommendation of the Executive Committee, the following rules regarding papers have been adopted by the Council:

1. Papers may be presented only by members in good standing or guests. Distinguished scientists, associate or honorary members of any competent county society or any physician not a resident of the state may become a guest.

2. No member may present more than one paper at any one state meeting, provided that members may present additional papers before Sections on Technical Specialties; and provided further, that a member may be a collaborator on more than one paper, if these papers are presented by different authors.

3. Failure on the part of an author to present a paper precludes acceptance of future papers from such author for a period of two years, unless the author explains to the satisfaction of the Executive Committee his inability to fulfill his obligation.

4. Manuscript not accepted for publication will be returned to the author as soon as practicable. Authors desiring to publish their paper elsewhere than in CALIFORNIA AND WESTERN MEDICINE may have their manuscript returned to them upon written request to the secretary.

5. No paper will be accepted by the General Program Committee nor by Section Program Committee unless accompanied by a synopsis of not to exceed fifty words.

6. Papers shall not "be read by title."

7. The maximum time that may be consumed by any paper is fifteen minutes, provided that not to exceed ten minutes' latitude may be allowed *invited guests* at the discretion of the presiding chairman.

8. Motions from the floor to extend the time of an author may not be entertained by the presiding officer.

9. The maximum time permitted any individual discussant on any paper is four minutes. This also applies to the author in closing his discussion. No discussant may speak more than once upon the same subject.

10. A copy of each and every paper presented at the state meeting must be in the hands of the chairman or secretary of the section or in the hands of the general secretary before the paper is presented.

The names of section officers will be found listed in this issue of CALIFORNIA AND WESTERN MEDICINE on page 58.

Neglecting the Little Things in Medical Practice—Doctor Charles J. Whalen (Illinois Medical Journal) makes the statement that upwards of 75 per cent of human ailments are to be classed accurately as trivialities. Intent upon the critical laparotomy, or other serious surgical operation, idealistic young physicians are prone to neglect the every-day need of the ailing public. *And here is the loophole through which the bogus practitioner creeps to find a foothold by which he may dislodge the skilled man.* Out of the inattention of scientific men for ordinary wants of an indisposed people spring and flourish the mass of cults and mock medicine that insidiously deprive the sick of expert medical attention. The pseudists lend a sympathetic ear, as they receive cash in advance for their treatment of petty maladies.

Medicine in the Public Press

The Greatest Word in the English Language—"It isn't Love. It isn't Brotherhood. It isn't Friendship. It is a word that embodies the spirit and the meaning of all three of these words.

"The word is: Service," writes Edward W. Bok (World's Work). "Scale the word as you like, let it run the gamut of life in all its phases, from the lowest to the highest, and it holds its marvelous place in the lives of men. . . .

"Washington served, and in a moment of discouragement said he would rather be in his grave than endure further the vilification that came to him. But he rallied and served. Abraham Lincoln was the embodiment of service—service to a cause, service to a people. No darker days ever came to a man than those which came to him in his trying days of service. . . .

"Service seems thankless, yet nothing in the lives of men is so fruitful of the largest returns to the server. . . .

"Never was there a time when so many chances for service beckoned to a man to go out and do something for his fellowmen. It matters little *what* such a man does, so long as he does and serves. And in man's work in the world, love translates itself concretely in service. That is eternal, immortal. To serve others is to live forever. . . ."

And that is the only form of longevity worth serving for.

Youth by Radiation—Herman Rubin (Forum), said to be a Russian doctor of medicine, who has "had extraordinary success in the treatment of various endocrinological conditions by means of radiation," maintains that "by artificially ionizing the endocrine cells, and increased production of hormones is secured, and these hormones travel through the blood stream and reinvigorate the affected cells. When these are quickened to action the whole organism is refreshed, and we are on the road to rejuvenation. . . . Of the more than 100 causes of old age found in the medical books, there is not one cause that cannot be overcome by the radiendocrine treatment. For how long a period life can be extended, no one knows. It is sufficient for the present that, by reinvigorating the cell, we can turn back the hands of time."

So that's that.

"I'm Not Going to Die." "I'm Not Going to Die." "I'm Not Going to Die"—"Sing that to yourself day and night," says "Doctor" Alice Jewel in press dispatches, "and you will have found the secret of youth, and you will live to be 250 years old." It is said that "Doctor" Jewel, who is "an applied psychologist," has just returned from Europe, where she has confirmed her ideas about longevity. "My method of rejuvenation," says the "doctor," comes from within. We have the idea in our subconscious mind that we are going to die, so we do. My task is to teach people to forget that idea and to live for centuries."

"The 'Psychology' Season is With Us Again," says the San Francisco Examiner editorially, judging from the billboards.

"Where have the adepts in 'soul culture' and 'will power' and 'personality' been keeping themselves all summer?

"Wherever it is, they have been keeping themselves well. Some of them have a following in San Francisco that film stars might envy. Peddling to discouraged persons a few pages of Emerson, reduced to imbecility—perennially declaiming the same dime's worth of Orison Swett Marden's 'philosophy' to rapt applause—they bag enough loose change over the winter to keep them going at Palm Beach the delightful summer long.

"Anyway, it's better and safer than selling oil stock. But we prefer the old-time phrenology 'professor.' You stepped into his carriage, and under the gasoline torch the 'professor' measured your skull with calipers.

"'Bumps' have given way to 'complexes' and 'hollows' to 'inhibitions.' Too bad the old phrenologist didn't enrich his vocabulary in time. His soul goes marching on, even though his body seldom got to Palm Beach."

Hay-eating Germs—I hope you saw the intriguing press account of the wonderful discovery (?) of a hay-digesting germ. Cows are said to grow lazy while this germ digests hay for them. Let us hope it proves equally effective with spinach.

Lip Wisdom as Applied to Infant-feeding—Under this title a condensed milk company issues an amazing booklet which has caused various curious reactions among physicians. Although frankly an advertisement, this booklet attacks the "experimental theories among physicians." "In no field of clinical practice is such so-called 'wisdom' more conspicuous than in that which applies specifically to infant-feeding." The statement is made unqualifiedly that, regardless of all the propaganda against condensed milk, the use of these substances is on the increase, both as to the quantity of milk consumed and in the number of infants being fed on it.

Quite an astonishing line of advertising!

"Heads They Win, Brains They Lose," says Uncle Henry (Collier's) in one of the most amusing of his inimitable articles on problems of the day. Uncle Henry undertook to psychoanalyze his negro cook, Aunt Hepsy, having secured the tests from prominent universities, and among the questions asked he notes these:

How many corn flakes would it take to go round the world if placed end to end? The corn flakes, not the world. (a) On a calm day? (b) With the wind blowing.

In double entry, which is preferable? Give three reasons, reading left to right, no more than four being the same.

Pronounce umph backwards without rising on the balls of the feet or touching the doorpost, tibia, fibia, or uvula.

Is free verse high at the price? Give three examples starting with Z.

State the influence of mission furniture upon religious thought? In a word? In two words? Reverse the order.

What is taught by the home life of the caterpillar? Is the caterpillar, in your opinion, more influenced by heredity or environment, everything being equal or nearly so? What part is played by cultural lacks and bad associates?

Would you believe it, there wasn't a single question that she could answer. Same way respectin' deduction, reduction, an' ratiocination, an' even in observation she was a flop. She couldn't tell the number of bricks in a pavement she'd walked over every day for ten years, an', despite the times we've had prunes for breakfast, she'd never counted the wrinkles in one or noted whether they ran from north to south or diagonally, as the case may be, if at all. She had no idea of the number of feathers on a canary, an' was equally at a loss to tell whether a dog turns to the right or left before it lies down.

Billions—Just for Fun—In discussing the question of "fun" the American people work so hard to secure for themselves, Walter S. Hiatt (Collier's) gives us some rather startling figures:

The motion pictures report 20,000,000 daily admissions. County fairs each year attract about 40,000,000 persons. The circus fans number 12,000,000. There are 10,000,000 fishermen, 2,200,000 golfers, 1,000,000 cyclists, 10,000,000 card players, 20,000,000 radio fans, 12,000,000 automobilists (exclusive of guests). More than 6,000,000 persons dance each day. About 1,200,000 children daily use our playground centers. More than 19,000,000 persons participate annually in Y. M. C. A. recreations. All this fun costs us at least $6,000,000,000 a year—half as much as all the war debts, including unpaid interest, that foreign nations owe us. What does it signify?

New Birth Control Clinic—According to newspaper stories, an organized effort is under way to establish birth control clinics in California. The announcement

does not state whether or not they will be "free." In any event, it is safe to predict that they will be popular. It is easy to predict that a lot of the people sloganizing about birth control will find out a lot that they did not know about the subject before. Dr. Dawson, physician to the king of Great Britain, certainly provided an opportunity for a new alignment of uplifters when he said, "Sex love aside from the duty of procreation should be defended. Marital abstention is harmful."

Science Captures and Imprisons a New Vitamin—Under this headline, Max Bentley (Dearborn Independent) seems quite certain that "something happened recently to set scientific tongues wagging. The medical journals were full of it, but the lay world may have overlooked the modest announcement by Dr. Walter H. Eddy of Columbia University Teachers' College. The announcement was that he and his associate, Dr. R. R. Williams, of the Western Electric Research Laboratory, with the assistance of Dr. Ralph W. Kerr of Columbia had isolated—for the first time—had captured and imprisoned in a bottle, a pure D vitamin."

"Dr. Eddy," continues the author, "told me the story as we sat in his laboratory overlooking the beautiful university campus. It fell from his lips in simple words. Only when he suddenly reached into the lower left-hand pocket of his vest and produced a small phial containing six white crystals, with the offhand remark that 'These are pure vitamins,' was it realized that his narrative was an epic such as no man has had the right to speak before. The phial toppled over with a faint and musical clink and rolled erratically toward the edge of the desk. Four frantic hands made reach for it. Eddy, who recovered it, smiled in ghastly fashion as he stowed it away. The thing was priceless."

Does this modest narrative suggest the advisability of insurance against accidents and carelessness by discoverers when handling their precious products?

"The isolation of bios" concludes the author, "suggest marvelous possibilities for the transport of more foods, and better foods, in compressed form, to famine-stricken areas where fresh foods are not to be had. He, says Eddy, does not believe it is drawing the long bow of imagination to see a day when science will be able to spray a few milligrams of crystal vitamins into a few tons of 'dead' foods, and electrify the mass with life. Since vitamins A, B, C, and D can be put back into devitamized milk, rice, potatoes and butter, and respectively, heal a sickly animal's sore eyes, cure beriberi and scurvy in man or beast, and bring new life to the child with rickets, will it not be possible some day to cure *all* diet-deficiency diseases simply through the discovery of new vitamins? Vitamin possibilities are enormous, but are they limitless?"

Now who will dare say that a feature writer cannot make a scientific story attractive reading?

"Governor and U. C. Heads in Clash Over Vaccination," says a newspaper headline. It is reported that Public School Progressive League will use its influence to induce the authorities of the University of California to change their present attitude requiring vaccination against smallpox of all students to a regulation that would make protection against smallpox optional. It is said that the president and the regents of the university are very properly opposed to any change, but that the Governor of the state, who is ex-officio chairman of the board of regents, favors a change being made.

Catching Up With Methuselah—Since a vital statistician recently predicted the imminence of the 900-year span of life, several publications are beginning to wonder what we will do with the 845 years that are not included in our present scheme of life.

In commenting upon the matter, editorially, Collier's says: "One will play a few sets of tennis with one's great grandchildren every Saturday afternoon; one will romp around the campus on the century class reunion—if one wants to. And will one want to? Some folk tire of the game of living at seventy, sixty, even fifty. They beg to be excused. Francis Galton reported that the years after eighty were the very pleasantest he had lived; and he was a trained scientific observer. Tastes differ, and above all they differ as to living. Let us have a few more centuries to look forward to, by all means."

Sexual Experiences Among Educated Women—The results of what has been characterized as the most "intimately naked survey" ever made, are now beginning to appear.

The Bureau of Social Hygiene some time ago started a controversy in the public press by the intimate character of a questionnaire they were sending out to women college graduates. A list of 10,000 names of *unmarried* women was prepared from the alumnae registers of women's colleges and co-educational institutes. Only those graduating during or before 1917 were included. A letter was sent to these 10,000 women, explaining what was being attempted and they were asked if they would fill out the questionnaire—anonymously, of course. Approximately 25 per cent of the 10,000 or 2515 agreed to supply the some ten pages of questions about their most intimate sex feelings and sex experiences. Actually, 1183 questionnaires were returned. Some of them were hardly clear upon all points, and 1000 of the most complete form the basis of a lengthy analysis by Katherine Davis (Mental Hygiene, July).

The findings show a somewhat higher incidence of sexual activity—normal and abnormal—than the figures usually quoted in medical literature and accepted by physicians. There are going to be a variety of reactions from this study and publication—some of them probably violent. Many, including most physicians, will feel as physicians always have felt, that such information would be better to have remained in the hands of those who deal with human frailties. Nature is raw, naked and primitive in many of her manifestations, and it is at least debatable whether or not the veil society drops over her upheavals should be rolled back for public gaze.

To physicians there is little of particular interest—and nothing surprising—in the long drawn out analysis of the results of this questionnaire..It sums itself up in the fact that, out of 1000 unmarried women graduated seven or more years ago, 892 admit in "confidential" written documents that they have indulged in: Masturbation, 603; had sexual intercourse, 105; indulged in homosexual experiences, 184. Sexual experiences of any kind was denied by 288; 53 declined to answer, and 25 tried all forms of sexual experiences.

One table in the article analyzes the combinations of the sexual experiences as:

Masturbation only	396
Sex intercourse only	12
Homosexual experiences only (with physical expression	43
Both masturbation and homosexual experiences	115
Both masturbation and sex intercourse	67
Both sex intercourse and homosexual experiences	1
Masturbation, sex intercourse, and homosexual experiences	25
All these sex experiences denied	288
Questions relating to all these experiences unanswered	53

Part two of the report, to appear shortly, will deal with the sex experiences of married women.

OBSTETRICIANS

Will doctors who are interested in obstetrics and gynecology please register with the secretary? Send name, address, and $5 to the address below. This money will be used to defray the expenses of a stenographer for this section at the state meeting. It is also desired to secure a registry of men who are willing to assist in the program. This will greatly aid the program committee in arranging for the meetings.

John W. Sherrick, Secretary,
350 Twenty-ninth Street, Oakland, Calif.

The educated individual is a leader, a thinker, a builder. The creative power with which he was endowed from the beginning has been released and put to work in the service of himself and his fellows. By his joy you shall know him.—Angelo Patri.

California Medical Association

ABSTRACTS FROM THE MINUTES OF THE ONE HUNDRED AND FORTY-EIGHTH MEETING OF THE COUNCIL OF THE CALIFORNIA MEDICAL ASSOCIATION.

Held at the Hotel Virginia, Long Beach, California, Saturday, November 8, 1924.

Present—Doctors MacGowan, Ewer, Parkinson, Kinney, Kiger, Edwards, De Lappe, Coffey, Smith, Kress, McArthur, Gibbons, Curtiss, Emma W. Pope, and General Counsel Peart.

Absent—Doctors Alderson, Beattie, McLeod, Hamlin, Bine.

Minutes of the Council—The minutes of the 143rd, 144th, 145th, 146th, and 147th meetings of the Council were presented for approval, copies having been submitted to all members of the Council by mail.

Action by the Council—On motion of Ewer, seconded by De Lappe, it was

RESOLVED, That the minutes of the 143rd, 144th, 145th, 146th, and 147th meetings of the Council be approved as submitted to all members of the Council.

Minutes of the Executive Committee—The question of reading the minutes of the 74th, 75th, 76th, 77th, and 78th meetings of the Executive Committee was raised, inasmuch as copies of such minutes had been submitted to each member of the Council.

Action by the Council—On motion of Ewer, seconded by Gibbons, it was

RESOLVED, That the minutes of the 74th, 75th, 76th, 77th, and 78th meetings of the Executive Committee be read.

Minutes of the Seventy-fourth Meeting of the Executive Committee—The secretary read the minutes of the seventy-fourth meeting of the Executive Committee.

Action by the Council—On motion of McArthur, seconded by Edwards, it was

RESOLVED, That the minutes of the seventy-fourth meeting of the Executive Committee be approved and made a part of the official minutes of this Council.

Minutes of the Seventy-Fifth Meeting of the Executive Committee—The secretary read the minutes of the seventy-fifth meeting of the Executive Committee.

Action by the Council—On motion of De Lappe, seconded by Gibbons, it was

RESOLVED, That the minutes of the seventy-fifth meeting of the Executive Committee be approved and made a part of the official minutes of this Council.

Minutes of the Seventy-Sixth Meeting of the Executive Meeting—The secretary read the minutes of the seventy-sixth meeting of the Executive Committee.

Action by the Council—On motion of Ewer, seconded by Kiger, it was

RESOLVED, That the minutes of the seventy-sixth meeting of the Executive Committee be approved and made a part of the official minutes of this Council.

Minutes of the Seventy-seventh Meeting of the Executive Committee—The secretary read the minutes of the seventy-seventh meeting of the Executive Committee.

Action by the Council—On motion of Edwards, seconded by Smith, it was

RESOLVED, That the minutes of the seventy-seventh meeting of the Executive Committee be approved and made a part of the official minutes of this Council.

Minutes of the Seventy-eighth Meeting of the Executive Committee—The secretary read the minutes of the seventy-eighth meeting of the Executive Committee.

Action by the Council—On motion of Gibbons, seconded by Kiger, it was

RESOLVED, That the minutes of the seventy-eighth meeting of the Executive Committee be approved and made a part of the official minutes of this Council.

Nineteen Twenty-five State Meeting—The secretary raised the question of extending the time of the 1925 state meeting in Yosemite from four to five days in order that the third day of the session could be devoted to enjoying the valley. The matter was then discussed by all present.

Action by the Council—On motion of Kress, seconded by De Lappe, it was

RESOLVED, That the meeting days of the 1925 state meeting in Yosemite National Park be Monday, Tuesday, Wednesday, and Thursday—May 18, 19th 20, and 21.

Membership Directory—The secretary reported that the membership directory for 1924 was now off the press and would be in the hands of each member of the California Medical Association by the first of the ensuing week. A copy of the directory was then presented to the Council.

Action by the Council—On motion of Edwards, seconded by Kress, it was

RESOLVED, That the directory of the membership of the California Medical Association for 1924 be approved; and further that the Council express its appreciation to the editor of CALIFORNIA AND WESTERN MEDICINE for his suggestion that the California Medical Association issue an exclusive directory of its own membership.

Lay Distribution of Membership Directory—The secretary raised the question of the method of distribution of the membership directory to the lay public, and the price to be charged for such copies of the directory. After thorough consideration, on motion of Kress, seconded by Smith, it was

RESOLVED, That the secretary be authorized to send out an announcement to all parties who would probably be interested, of the publication by the California Medical Association of an exclusive directory of its own membership; and further that the sale price of the directory be fixed at $1 per copy; and further that all sales be made direct from the offices of the association.

Publication of Future Directories—The secretary requested a ruling as to the date on which future directories of the membership should be published because of the differences in date of delinquency between the State Association and various county societies thereof.

Action by the Council—On motion of Smith, seconded by Kress, it was

RESOLVED, That in future the date of publication of the annual directory of the membership of the California Medical Association be fixed as of January 1 of each year, and that such directory include every member of the California Medical Association as of the previous year; and further that the next directory be published as of January 1, 1926.

Application for Affiliate Membership—The secretary presented application from the Sacramento Society for Medical Improvement for affiliate membership for Doctor J. Loughridge of Folsom, and requested that Doctor Loughridge's election to such membership by the Executive Committee at its seventy-sixth meeting be confirmed.

Action by the Council—On motion of Gibbons, seconded by Edwards, it was

RESOLVED, That the application for affiliate membership in the California Medical Association as submitted by the Sacramento Society for Medical Improvement for Doctor J. Loughridge of Folsom be approved; and that the action of the Executive Committee in electing Doctor Loughridge an affiliate member at its seventy-sixth meeting be hereby confirmed and ratified.

Transfer to Associate Membership—The secretary submitted an application from W. T. Cummins of San Francisco for transfer as of January 1, 1925, from active to associate membership, as provided for unlicensed physicians in Article III, Section 2, of the constitution and by-laws adopted by the California Medical Association in June, 1923.

Action by the Council—On motion of Smith, seconded by Gibbons, it was

RESOLVED, That the application of W. T. Cummins of San Francisco for associate membership in the California Medical Association as of January 1, 1925, be approved; and that Doctor Cummins be so notified.

Sciences Allied to Medicine—The secretary requested a ruling as to what constitutes "sciences allied to medicine" under Article III, Section 2, of the constitution and

by-laws adopted in June, 1923, in order that applications for associate membership might be properly handled before presentation to the Council for action. The question of rules and regulations governing associate membership was then thoroughly discussed.

Action by the Council—On motion of Kress, seconded by McArthur, it was

RESOLVED, That the rules governing associate membership in the California Medical Association be the same general rules adopted by the American Medical Association; and further that any application for associate membership be referred to the proper county society to determine whether it desires to enter any protest before such application is presented to the Executive Committee and Council for consideration and action.

Application for Associate Membership—The secretary presented an application from Mr. Nicholas A. Karpaty of San Francisco for associate membership. The desirability of opening associate membership to physiotherapists was then brought up and fully considered.

Action by the Council—On motion of Gibbons, seconded by Coffey, it was

RESOLVED, That, in accordance with resolution governing associate membership adopted by the Council at this meeting, the application of Mr. Nicholas A. Karpaty of San Francisco for associate membership in the California Medical Association be deferred to the next meeting of the Council, pending a report by the secretary; and further that Mr. Karpaty be so notified.

Seal—The chairman of the Council reported on the desirability of retaining the old seal of the society as adopted in 1856 and again adopted at the reorganization of the society in 1870, and submitted the following history of the seal as published on page 220 of the "Transactions of the Medical Society of the State of California for the years 1871 and 1872":

"The seal that has been adopted shows enough of the beautiful design of the seal of the state to declare the common origin of the Medical Society and of the state of California, while the cock that was wont to be sacrificed to Esculapius, representing 'vigilance,' is crowing out 1870, the year of reorganization; and the serpent, emblematic of 'sagacity and long life,' lies entwined around the doctor's staff at his feet. Thus vigilance and sagacity typify the qualities a physician should possess under the direction of Minerva."

Action by the Council—On motion of Gibbons, seconded by Kiger, it was

RESOLVED, That the action of the Council at its 144th meeting in adopting as the seal of the California Medical Association the design submitted by Doctor Saxton T. Pope of San Francisco be rescinded; and further that the original seal as adopted by the Medical Society of the state of California in 1856 and again adopted at the reorganization of the society in 1870 be retained as the official seal of the California Medical Association; and further that the encircling inscription on the seal read "California Medical Association 1856," with "1870" as originally placed on the face of the medallion.

Hospital Bond—The question of endorsement of the hospital bond issued by the National Surety Company of New York was brought up, and the general counsel read a letter sent the surety company by the editor regarding certain phases of the bond. After discussion, it was the sense of the Council that the matter be referred over to the afternoon session of this meeting, at which time Mr. G. B. Zemansky, representative of the Hospital Bond Division of the National Surety Company, could be present to discuss this bond with the Council.

Board of Health Letters—The secretary reported that Doctor Reginald Knight Smith of San Francisco had consented to take charge of the compilation of a pamphlet on "Prenatal Care," and that he would appoint a committee of the leading obstetricians of the state after securing all available Sheppard-Towner matter issued by the various states and that compiled by Truby King for New Zealand and Australia.

Income Tax Deductions—The secretary read a reply from Commissioner of Internal Revenue D. H. Blair of Washington, D. C., to resolution passed by the Council at its 147th meeting together with reply from the California Bar Association, expressing its thanks and advising that similar action will be taken at its December meeting. President MacGowan then recommended that the general counsel be instructed to prepare a bill for introduction to Congress at its next session. The question of the advisability of presenting such a bill to Congress was then fully discussed together with the desirability of requesting the A. M. A. to take up the matter with the various state medical associations and state bar associations.

Action by the Council—On motion of MacGowan, seconded by McArthur, it was

RESOLVED, That the general counsel be instructed to prepare the necessary bill for introduction to Congress at its next session in the matter of income tax deductions by physicians for expenses incurred in attendance on medical conventions, meetings and post-graduate courses; and further that the matter be referred to the A. M. A. together with copy of the resolution adopted by the Council at its 147th meeting held in Los Angeles, California, May 15th, 1924, and affidavit prepared by the general counsel along the same lines; and further that the A. M. A. be requested to notify each state medical association, each state bar association and any other professional associations of the action taken by the California Medical Association in order that similar action might be taken by each of the aforementioned associations.

Medical Radio Broadcasting—The secretary submitted correspondence regarding medical radio broadcasting, together with resolution passed by the Executive Committee at its seventy-eighth meeting. The question and policies governing such broadcasting was then thoroughly considered, particularly with reference to the dangers of a "question and answer service."

Action by the Council—On motion of Kress, seconded by Coffey, it was

RESOLVED, That the Chair be authorized to appoint a committee of three to consider the question of medical radio broadcasting and bring in a report at the afternoon session of this meeting. The Chair appointed as members of this committee Doctor George H. Kress, chairman, Doctors Walter B. Coffey and Morton R. Gibbons.

Medical Radio Broadcasting—Doctor Kress, chairman of the committee appointed by the Chair at this morning's session to consider the question of medical radio broadcasting, presented the following resolution:

WHEREAS, Medical radio broadcasting, because of the great distances covered, is fraught with grave dangers to many lay listeners because of subject matter not applicable to local conditions; and

WHEREAS, To keep medical radio broadcasting impersonal and in conformity with the ethics of the American Medical Association is almost impossible; and

WHEREAS, Human nature is such that medical radio broadcasting is almost certain to be abused by certain medical men; now, therefore, be it

RESOLVED, That the Council of the California Medical Association hold: First, that no radio bureaus established for medical broadcasting be inaugurated or participated in by members of the California Medical Association except under permission of and with the observance of such rules as the "Medical Radio Broadcasting Committee of the California Medical Association" may promulgate in regard thereto. Second, that no question and answer service department be conducted as a part of any medical radio broadcasting service, and third that a copy of this resolution be sent to the American Medical Association and every county medical society, and the attention of such organizations called to the dangers incident to medical radio broadcasting.

Action by the Council—On motion of Kress, seconded by Edwards, it was

RESOLVED, That the resolution on medical radio broadcasting be adopted; and further that the Chair be requested to appoint a statewide committee of five to be known as the "Medical Radio Broadcasting Committee of the California Medical Association."

The Chair announced that the following were appointed members of this committee: Doctor George H. Kress, Los Angeles, chairman; Doctors Walter B. Coffey, San Francisco; Morton R. Gibbons, San Francisco; Gran-

ville MacGowan, Los Angeles; and Edward N. Ewer, Oakland.

Cummins-Vaile Bill—Request of the Voluntary Parenthood League of New York for endorsement by the California Medical Association of the Cummins-Vaile bill was presented. No action was taken.

Clinical Prize—The Council considered the question of adopting a plan similar to that of the British Medical Association, by establishing a clinical prize to encourage the family physician, as suggested by the editor and recommended by the Executive Committee.

Action by the Council—On motion of Kress, seconded by McArthur, it was the sense of the Council that the suggestion of the editor be adopted; and that, tentatively, three prizes be established and competed for at the 1926 state meeting in the sum of $100 for the first prize, $75 for the second, and $50 for the third prize; and further that a committee of three be appointed by the Chair to formulate the necessary regulations governing such awards; and that the committee submit such regulations to the Council at its next meeting.

Financial Statements—Financial statements of the accounts of the California Medical Association and CALIFORNIA AND WESTERN MEDICINE for the ten months, ending October 31, 1924, were submitted in accordance with instructions received at the seventy-eighth meeting of the Executive Committee. It was the sense of the Council that comparative statements be compiled as of January 1, 1925, and forwarded each member of the Council for presentation and discussion at its next meeting.

French Hospital—The secretary presented for the information of the Council a letter from the French Hospital of San Francisco, advising "that the doors of the French Hospital were closed to physicians and surgeons who are not eligible to membership in the State Medical Society."

Criticism of Profession—Councilor Curtiss of Redlands submitted a letter received by him commenting on the criticism of the profession by a member of the California Medical Association and of the Board of Health.

Action by the Council—On motion of Gibbons, seconded by McArthur, it was the sense of the Council that this communication and material upon which it is based be submitted to the editor for such action as he may deem proper in the premises.

Protest by Health Officers—The secretary submitted a resolution passed by the Health Officers' Section, League of California Municipalities at a meeting held at Asilomar October, 1924, protesting against the policies of the Journal as contained in an editorial appearing in the September issue of CALIFORNIA AND WESTERN MEDICINE, entitled "Short-Sighted Public Health Policies." Proposed editorial as submitted by the editor in reply thereto was then discussed.

Action by the Council—On motion of Kress, seconded by De Lappe, it was

RESOLVED, That editorial entitled "California Medical Association Condemned by the Health Officers Section, League of California Municipalities," as submitted by the editor of CALIFORNIA AND WESTERN MEDICINE be approved, with the addition of a paragraph stating definitely the association's appreciation of the valuable services rendered by qualified health officers in general.

Medical Section of Officers Reserve Corps—The secretary submitted correspondence from the Surgeon-General's office regarding the appointment of a military committee to develop and promote interest in the medical section of the Officers' Reserve Corps.

Action by the Council—On motion of Kress, seconded by Gibbons, it was

RESOLVED, That the Chair be authorized to appoint a statewide military committee on medical section of Officers' Reserve Corps, the number thereof to be at the Chair's discretion; and that the chairman of this Council be made chairman thereof; and further that the committee be representative of the profession and co-operate with the Surgeon-General's office.

Endorsed Specialties—A ruling was requested, outlining those specialties approved by the Council of the California Medical Association, particularly for use by members on professional cards, announcements, etc. The following list of specialties as endorsed by the A. M. A. was then presented: Anesthesiology, Bacteriology, Clinical Pathology, Dermatology, Gynecology, Industrial Medicine and Surgery, Internal Medicine, Laryngology, Neurology, Obstetrics, Ophthalmology, Orthopedic Surgery, Otology, Pathology, Pediatrics, Proctology, Psychiatry, Public Health, Rhinology, Roentgenology, Surgery, Syphilology, Tuberculosis, and Urology.

Action by the Council—On motion of McArthur, seconded by De Lappe, it was

RESOLVED, That the list of specialties as adopted by the A. M. A. be approved as the specialties endorsed by the California Medical Association.

Status of Legal Staff—The question of continuing the present legal staff was brought up by the chairman and thoroughly discussed.

Action by the Council—On motion of Kress, seconded by McArthur, it was

RESOLVED, That the chairman of Council be empowered to discuss the matter with the legal staff; and further that the Council hopes to continue its present pleasing and satisfactory association.

Status of Associate Members of County Medical Societies—Doctor Kinney, councilor from San Diego, stated that many Veterans' Bureau men who were associate members of his county society and also associate members of the A. M. A. were desirous of becoming associate members of the California Medical Association. He then called the attention of the Council to the fact that the constitution and by-laws of the California Medical Association, as adopted in June, 1923, did not agree on this point, and asked for a ruling in the matter.

After discussion, it was the sense of the Council that Doctor Kinney write the state office in detail of the situation existing in San Diego County as a basis for the amendment necessary to correct the constitution.

Permanent Convention Headquarters—Harlan Shoemaker, chairman of the Committee on Permanent Convention Headquarters, being present by invitation, made a progress report and requested the continuance of his committee so that more data could be secured.

After informal discussion, it was the sense of the Council that the committee be continued; and that Doctor Shoemaker be requested to make a further report at the next meeting of the Council.

Adjournment—There being no further business, the Council adjourned.

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary)—The regular meeting of the Alameda County Medical Association was held October 20, Vice-President H. B. Mehrmann presiding.

Chesley Bush spoke on "Some Conclusions as to Treatment of Tuberculosis from the Experience at Arroyo Sanitarium." He emphasized the necessity of treating the psychology of the patient, as well as the pathology; the dangers of indiscriminate sun treatment of pulmonary tuberculosis; the apparent beneficial results of ultra violet lamp therapy on chronic peritoneal and intestinal tuberculosis. He also brought out the necessity of following the rest cure with a gradual return to full working efficiency under medical supervision.

P. N. Jacobson read a paper entitled "Some Complications of Nephroliathiasis," with a report of a case of two attacks of calculus anuria in a solitary kidney. Both attacks were relieved with cystoscopic maneuver. Subsequently, pyelo-lithotomy was performed, with uneventful recovery. The author accentuates the importance of cystoscopy and ureteral catheterization in dealing with calculus anuria, as most cases of calculus anuria can be relieved by cystoscopy and ureteral catheterization alone. The author further considered the clinical symptoms and characteristics of the urine in nephroliathiasis, with the indications for and against operative treatment.

In reporting his case of "Primary Sarcoma," John Hedley Scudder stated that this is an extremely rare disease, often latent and difficult of diagnosis; that it has a single pathognomonic symptom, the finding of neoplas-

tic fragments in the sputum, or in products obtained by puncture of the lung or pleura, and that the affection is characterized usually by massive involvement of the lung without remote metastases. The doctor mentioned the most frequent complications and described the more important physical signs, and stated that, except in rare cases, treatment can only be palliative; that surgical interference remains a very questionable mode of treatment, and deep x-ray therapy has so far been without avail.

At the regular monthly meeting of the staff of Merritt Hospital, held November 3, A. M. Smith read a paper on "Lethargic Encephalitis, in the course of which he demonstrated a typical case of that disease. His aim in writing the paper was to bring out the differential diagnosis between encephalitis, acute poliomyelitis, cerebral tumor, and botulism. The use of lumbar puncture for diagnosis in this disease was considered of no value and associated with much risk if cerebral tumor was present. The second paper was by Milton Shutes on "Aural Vertigo." The history of the relation of vertigo to the labyrinth and of the labyrinth to organic and functional disorders was discussed with a resume of the postulates on which the diagnoses and prognosis of intra-cranial lesions are generally made. Out of the confusion arising from immature conclusions, we have certain facts of value to the otologist and the neurologist; and from the work of experimental physiologists, we may hope for postulates which will increase the value of vestibular testing.

On the evening of October 24, W. S. Porter entertained the staff of the Merritt Hospital at his new residence and offices. A buffet supper was served, followed by music, cards, and a general good time. The staff, as a mark of esteem of Dr. Porter, took this occasion to present him with a portrait of himself painted by Miss Bernita Lundy of San Francisco.

At the general staff meeting of the Fabiola Hospital, held October 28, Dr. G. W. Pierce of San Francisco gave a talk, illustrated with lantern slides, on Reconstructive and Plastic Surgery.

The date of the staff meeting of Providence Hospital falling on Armistice Day, the meeting was postponed.

The meeting of the president and visiting staff of the Alameda County Hospital held November 3 was devoted to a discussion of the interesting house cases of the month.

CONTRA COSTA COUNTY

Contra Costa County Medical Society (reported by L. St. John Hely, secretary)—The regular meeting of the Contra Costa County Medical Society was held at 8 p. m., Saturday, October 25, at the Abbott Emergency Hospital, Richmond. Fletcher B. Taylor of Oakland lectured on Poliomyelitis, the lecture illustrated by lantern slides. Dr. Taylor covered the pathology and etiology and symptoms in a very complete manner. Treatment was covered by Harold H. Hitchcock in a comprehensive way. C. R. Blake, health officer of Contra Costa County, described the epidemic in the northeastern part of the county. Dr. Rosa Powell was elected to membership by a unanimous vote, and we were very glad to have her as a member; she was called upon for remarks, which she made in a happy manner. After the meeting the members adjourned to Martin's Grill for refreshments. The following members were present: U. S. Abbott, C. R. Blake, G. M. Bumgarner, H. N. Belgum, John Beard, J. T. Breneman, J. Emmett Clark, Harold H. Hitchcock (Oakland), L. St. John Hely, H. L. Carpenter, Denninger Keser, Rosa A. Powell, Felton B. Taylor (Oakland), F. L. Horne, Hall Vestal.

A letter was read from the state secretary in regard to radio broadcasting lectures. The president appointed a committee of two as follows: Horne and Hely.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—The regular meeting of the Fresno County Medical Society was held November 4 at the nurses' home of the General Hospital. There were twenty-eight members and ten visitors present. Members: Aller, Anderson, Barrett, Bell, Couey, Cowan, Dearborn, Jamgotchian, James, Jorgensen, Kjaerbye, Lamkin, Madden, Manson, Miller, Montgomery, Morgan, Newton, Nedry, Quimby, Schottstaedt, Sheldon, Tillman, Tobin, Tupper, Vanderburgh, Wheeler, Wiese, and Nider. Visitors: L. Seligman, H. O. Collins, Phillip Dick, and interns General Hospital. The minutes of the preceding meetings were read and approved. Roland D. Dahlgren was unanimously elected a member. Frank Tillman, as chairman of the committee, presented these resolutions in regard to the death of Dr. A. B. McConnell. They were adopted:

"Whereas, The hand of death has removed from our midst Dr. A. B. McConnell, so be it

"Resolved, That, in the death of Dr. A. B. McConnell, the medical profession has lost a valuable representative, the Fresno County Medical Society a valued member, and every physician a friend; and be it further

"Resolved, That the sympathy of this Society be extended to the bereaved relatives, and further

"Resolved, That a copy of these resolutions be placed upon the minutes of the Fresno County Mdical Society, and a copy sent to the immediate relatives." Signed: Frank Tillman, Howard H. Hopkins, T. N. Sample.

In regard to a fee schedule for work done for county patients, Dr. Tillman reported that a meeting had been held with Dr. H. O. Collins in regard to same, and that Dr. Collins was to take the matter up with the Board of Supervisors.

Program—A. H. Gillihan, District Health Officer California State Board of Health, in charge of the smallpox situation in this locality, showed many lantern slides of smallpox, chickenpox, and vaccinias. He showed cases which presented the death-warning picture of hemorrhage into the pustules. He dwelt upon the diagnosis and differential diagnosis of smallpox. The only means of conferring immunity for smallpox was (1) by contracting the disease itself, which unfortunately carries a high death rate, and (2) by vaccination, which is a mild affair.

Langley Porter, M. D., of San Francisco presented a very interesting paper on "The More Serious Affections of the Ear as They Occur in Infants and Children." He illustrated his talk by lantern slides. This paper was based on 166 cases of ear diseases over a period of four years.

Dr. Porter took up the anatomy of the middle ear and mastoid, and showed how easily infections from the upper respiratory tract could travel to the middle ear through the eustachian tube or be forced through it by violent blowing of the nose. The prevention of middle ear disease lay in protecting children from respiratory infections, removal of bad tonsils and adenoids, and proper blowing of the nose.

He presented several cases of mastoid and middle ear disease which did not have the symptoms and signs usually found in such conditions, and showing the difficulty of correct diagnosis in some cases.

He also presented cases illustrating Luc abscess, sinus thrombosis, and also showing the syndrome of trifical neuralgia, facial palsy, and internal strabismus. Early and adequate drainage for acute otitis media is most important in preventing the complications of the disease. In most cases the diagnosis is not hard, and examination of the ears should be routine in children.

F. B. Sheldon showed lantern slides of patients and x-rays of the long bones, demonstrating the damage of smallpox to the epiphyses resulting in lack of growth in those bones affected.

Buffet luncheon was served after adjournment.

Dr. Langley Porter was the guest of the staff of the General Hospital at luncheon on November 4. Dr. Porter presented an intensely interesting paper on "Modern Views on Infant-Feeding." He emphasized the importance of breast-nursing, and spoke of the methods used to promote proper supply of breast milk, and also the proper care of the nipples. However, he thought that every mother should not be forced to nurse her baby irrespective of whether she had enough milk or not. He believes that there are strains of mothers who produce

enough good milk, just as there are those who do not. He also discussed the various kinds of artificial feeding.

MARIN COUNTY

Marin County Medical Society (reported by J. H. Kuser, secretary)—The Society met on October 30 at the office of Doctor W. Jones, with the following members present: O. W. Jones, Landrock, Hund, W. F. Jones, Clark, Mays, Larson, Kuser.

Doctor Standmuller spoke on prenatal care of mothers.

The paper of the evening was by H. O. Hund on "Retrocecal Appendix," and it was followed by general discussion.

Applications for membership of Martha Allen of Fairfax and M. D. L. Allen of Novato were received and referred to the state secretary for approval.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement (reported by G. J. Hall, secretary)—The regular meeting of the Sacramento Society for Medical Improvement was held October 21. Members present, thirty-three; no visitors. President Drysdale presided. Minutes of previous meeting read and approved.

Report of cases:

O. F. Johnson presented history of very unusual case of carcinoma of prostate, with death due to metastasis in spinal vertebrae and various other joints. Discussed by Dr. Hale.

G. A. Foster reported unusual case of foreign body (candle) being found on laparotomy.

The paper of the evening was read by W. A. Beattie on "Congenital Cardiac Lesions." In his paper he mentioned that the relative frequency was quite high—cause—anomalies of growth rather important. He also touched upon etiology, diagnosis, and symptoms. Many interesting findings were described. Fetal circulation was explained.

Congenital lesions: 1. Defect of intraverticula septum (Rogers disease). 2. Patent ductus arteriosus. 3. Pulmonic stenosis. 4. Aortic stenosis. 5. Transposition of organ.

Private patients were presented, with use of radio amplification to demonstrate heart sounds to the members through a loud speaker.

Dr. Beattie suggested that every child's heart should be examined within twenty-four hours after birth.

Discussion was opened by C. E. von Geldern on Embryology, illustrated with blackboard drawings; by E. S. Babcock on Prognosis; by Bramhall and Gundrum on Findings in Adult Life. Discussion was closed by Dr. Beattie.

Application of Herbert S. Burden was voted on. There were twenty-six votes cast, twenty-five being yes, and one blank.

Dr. Parkinson discussed the Medical Society of the State of California. He also discussed the Reed-Johnson bill, and new fee schedule for industrial accident work.

The board of directors' minutes were read and approved.

Dr. Thomas discussed Red Cross practicing medicine. Moved and seconded that he be referred to the board of directors, etc. Discussed by Drs. Parkinson and Hall. Question carried.

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—The Society met at San Antonio Hospital, Upland, November 4, with twenty-five members present and twenty-five guests.

New members are H. Garcelon of Victorville, H. A. Bogue of Ontario, A. S. Garnett, E. H. Hull, O. H. Van Emon, J. A. Patterson of San Bernardino, C. G. Newbecker, Rialto.

The program was as follows:

"General Treatment of Syphilis," by Herman Zeiler, M. D., Los Angeles.

"The Treatment of Neurological Syphilis," by S. D. Ingham, M. D., of Los Angeles.

"Prevention and Management of The Accidents Which Occur in Any Regime of Anti-Syphilitic Therapy," by I. C. Sutton, M. D., of Hollywood.

Discussion on the three papers opened by Calvert Emmons, M. D., of Ontario.

SAN DIEGO COUNTY

San Diego County Notes (reported by Robert Pollock, M. D.)—The new Mercy Hospital, majestically overlooking the valley of the San Diego River, formally opened its doors to the public early in November. This represents the last word in hospital construction and equipment, and the institution will be conducted as an open staff hospital. Detailed, illustrated description will be furnished our readers in the next issue.

The October scientific meeting of the medical staff of the Naval Hospital was addressed by J. W. Sherrill, director of the Metabolic Clinic at La Jolla. The doctor's paper represented original work on the effect of salt-free diets upon vascular hypertension. It stands as a distinct contribution to the literature on this subject. The November meeting at the same hospital was addressed by Andrew Stewart Lobingier of Los Angeles, on "Surgery of the Gall-bladder and Biliary Tract." The subject was handled in Dr. Lobingier's masterly manner, and emphasized the need of improving our technique in gall-bladder surgery in order to more thoroughly eradicate infection of the liver and bile passages. While in San Diego, Dr. Lobingier addressed a public meeting in the high school auditorium on the cancer question.

The November meeting of the county society took the form of a symposium on the question of trachoma. It represented an effort to harmonize the views of the local medical profession, the school authorities, the city, county, and federal public health authorities. No more difficult condition exists today than is expressed by trachoma, with the divergent attitudes to it of parent, teacher, physician, specialist, and public health authorities.

The brief flurry caused by the few cases of infantile paralysis in one of the local schools has entirely subsided. Ten cases occurred among the families of this school district and all recovered. It was found necessary to close the school for one week only.

SAN FRANCISCO COUNTY

Proceedings of the San Francisco County Medical Society—During the month of October, the following meetings were held:

Tuesday, October 7—Section on Medicine: The program of modern criminology—A. M. Kidd, Professor of Law, University of California (by invitation). The medical faker in criminal cases—Captain Duncan Matheson, Detective Bureau, San Francisco Police Department (by invitation). The relations of psychology to medicine—Olga Bridgman.

Tuesday, October 14—General Meeting: Medical effects and uses of the Hot Springs of Arkansas—Colonel L. M. Maus, U. S. A., retired. Read by Major R. D. Harden (by invitation). The Receiving Hospital in San Francisco, thirty-seven years ago; a former newspaper reporters' recollections—W. W. Sanderson (by invitation). Some common drug eruptions—E. D. Chipman.

Tuesday, October 21—Section on Industrial Medicine: Rupture of the biceps—E. L. Gilcreest. Industrial liability for cancer—A. R. Kilgore. Spinal anomalies in relation to industrial injury—H. E. Ruggles.

Tuesday, October 28—Section on Eye, Ear, Nose, and Throat: History of cataract extraction—Hans Barkan. Intracranial complications of otitis and sinusitis—R. C. Martin.

Franklin Hospital Clinical Society (reported by Ewald Angerman, secretary)—The regular monthly meeting of the Franklin Hospital Clinical Society took place on Monday, October 27, at the hospital, William H. Heinzman, vice-chairman, presiding.

The paper of the evening was ably presented by Clement H. Arnold, the subject being "Hysteria Attendant Upon Abdominal Pathology," and was fully discussed by Joseph Catton.

Dr. Arnold presented his subject in a masterful way, which proved of benefit to his hearers.

St. Joseph's Hospital Staff Meeting on Public

Health—November 12 St. Joseph's Hospital staff of San Francisco held a "public health night." R. W. Burlingame spoke on "Diphtheria and Scarlet Fever." We understand the cause, prevention and treatment of diphtheria, but still have quite a mortality, due to antitoxin being used too late, in too small a dose and the waiting of a positive swab report in suspicious cases. The toxin of the disease must be combated by the antitoxin while still free in the blood, otherwise the toxin combines with the body cells and is not influenced by the injection. Large doses can do no harm. Subcutaneous injection is slow, intramuscular, the best all-around way, but intravenous the choice in hospitals and advanced cases. Latter may cause reaction, but prevents palsies and cardiac lesions. Use 100 units per kilogram of weight—even more p. r. n. Can inject 1 cc. to test reaction and desensitize. For "carriers" with sinus foci, 1 per cent mercurochrome spray is good.

Scarlet fever is now known to be due to streptococcus hemolyticus. The Dicks have evolved a toxin for its diagnosis by intradermal injection, as well as an immune serum and antitoxin.

Dr. Jennie Anderson talked on "Toxin-Antitoxin Vaccination." Her work in school children showed 40 per cent of positive Schicks and, unlike reports from the East, even 100 per cent positives in adults. Severe reactions within toxin-antitoxin were practically absent, and 90 per cent of positives were rendered negative.

W. T. Cummins exhibited tables of "A Survey of 13,000 Wassermann Reactions." Positives were found in 7.28 per cent of these patients from the Southern Pacific Hospital, including almost 2 per cent women. The unskilled laborers, many Mexicans, topped the different occupations in positives. Primary and secondary lesions were infrequent, but eighty-six tabes and fifteen general paralysis were outstanding. Anatomical distributions, according to frequency of luetic lesions, were central nervous system, eyes, cardiovascular, nose, bones and joints, and mouth, larynx and pharynx. Non-syphilitic lesions showing weak positives, in their order of frequency, were hydrocele, periostitis, and benign tumors; malignancies ranked low. In tabes the most common combination was a negative blood serum and a positive spinal fluid, while both positive serum and fluid ranked next frequent.

Dr. F. C. Keck gave an "Electrocautery Knife Demonstration" upon an animal and claimed its superiority for malignancies, as it seals lymph and blood vessels.

Case histories were presented by H. B. Dixon (pyelitis and endocarditis). J. B. Herring (traumatic perforation of uterus). A. S. Musante (post-operative acute dilatation of heart), and J. M. Stowell (appendectomy and obstruction of bowels).

The program of December 10 follows: "Management of Head Injuries," H. C. Naffziger. "Radiograms of Cranial Lesions," L. B. Crow.

Sisters of St. Joseph's Hospital Paid Tribute by Staff Members—St. Joseph's Hospital staff, by unanimous vote, recently adopted the recommendation of its executive board to offer voluntary assistance to the Sisters, to enable the hospital to be represented in the directory and advertising pages of CALIFORNIA AND WESTERN MEDICINE and BETTER HEALTH magazine. This action was followed by a personal subscription by each staff doctor as an expression of loyalty to St. Joseph's Hospital and as an appreciation of the necessity of supporting the local medical press, both lay and professional.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by Alex C. Soper, secretary)—The Society met at the Cottage Hospital, November 10, Vice-President Nuzum in the chair, in the absence of Dr. Robinson. Present: Sixteen members, four guests.

Five-minute case reports followed: "Brain complications of mastoiditis," Philip C. Means. "Aplastic anemia," Hugh Freidell. "New injury of old dislocated radius," Arnold G. Isaac.

Arthur B. Cecil, Los Angeles, read a paper on "Diverticula of the Bladder," which elicited considerable discussion on the subject, by Drs. Nuzum and Rexwald Brown.

Edward J. Lamb, Santa Barbara, was unanimously elected to membership in the society. The application for transfer by Joseph D. Lewis, formerly of Minneapolis, the Hennepin County Medical Society and the Minnesota State Society, was referred to the censors.

Letter from the maternal welfare committee of the American Gynecological Society, etc., and letter from the Chicago Gynecological Society in re Sheppard-Towner Act were referred to a committee of two gynecologists to answer (Drs. Bakewell and Loveren).

Letter from State Association in re medical radio broadcasting referred to a committee of two for answer (Drs. Means and Freidell).

The Society voted unanimously to have the secretary keep a card-index record of all opium addicts treated by them, to prevent "repetition" of prescriptions.

Back Numbers of Our Medical Journal Requested—The state office is endeavoring to complete the records of the association since its organization in 1856, and to that end would appreciate it if any member who has any of the following volumes would forward them to Emma W. Pope, M. D., secretary California Medical Association, 1016 Balboa building, San Francisco:

1902—Transactions of the Medical Society of the State of California.

California State Journal of Medicine:

1902—November and December.
1903—January to December, inclusive.
1904—May and June.
1905—May and June.
1906—June.
1907—May.
1915—November.

STIMULANTS, DEPRESSANTS, HUMOR

Dear Editor—If the average intelligence of our generation is "fourteen years or less," where in the world do all of the expert psychologists and psychoanalysts come from?—San Francisco.

Just a word of appreciation of the last number of the Journal. It was splendid.—E. N. E., Oakland.

Still, it may be possible that defective glands cause children to develop into alienists.—S. F. Chronicle.

I have been taking opportunity lately to examine more closely than I have been able to do heretofore the pages of California and Western Medicine. In my opinion it is a splendid publication, and is rendering a valiant service in the face of many discouraging circumstances. I have sometimes thought that some subjects were being overemphasized, but feel quite sure that you know exactly what you are doing. I, therefore, indulge the hope that the powers of your elbow will not decrease.—O. W., Chicago.

In reading over the paper sent me for discussion, which is a most excellent one, and the discussions already presented, I don't feel that I can add anything to the sum of knowledge, and my conception of your purpose in obtaining discussions of this kind is to make them pithy and avoid repetition of what has already been said, probably in a better way than I could do it. You are fortunate in having four of the best men in California who have already discussed the subject. I thank you for the opportunity which you offered me in this matter, but believe you will agree with me that, under the circumstances, further discussion by me would not add to the value or effect of the presentation.—R. G. T., Los Angeles.

Thank you for the opportunity of making some remarks in closing the discussion, but I find nothing to add to remarks so fair and courteous.—C. L. A., Los Angeles.

There are not competent people enough in the world to go round. Somebody must get the incompetent lawyers and doctors; so take care.—Bernard Shaw.

Permit me to congratulate you on the excellent manner in which the last meeting of the Urology Section (of the San Francisco County Medical Society) was reported by its chairman.—W. E. S., San Francisco.

An Honest Answer Saves a Lot of Talk

Reporter—To what do you attribute your long life?
Uncle Zachariah (104 years old)—Don't know a darn thing about it.

"We would not for one moment be understood as depreciating the value of brushing the teeth as an aid to oral cleanliness," says the Dental Cosmos editorially, "but in the light of various investigations we must inevitably come to the conclusion that the value of the act of brushing the teeth lies more in the manner in which it is performed than in the particular dentrifice used in the performance of the act."

Utah State Medical Association

MERRY CHRISTMAS

Another year has rolled around. Once more the little children are dreaming of the reindeer and the mystic saint who shall bestow largess on them. It is a time of year which, in Christian countries, has a softening, humanizing effect, when as it seems by some subtle soul process our minds turn for a few brief days from the more material battle with material things. It is perhaps a sort of stock-taking time, in which it behooves us to take stock of ourselves. Christmas—the birthday of Him who taught that the greatest activating motive in all creation was love of fellow-men. And love is, after all, the greatest thing. Who doubts it, if he is honest with himself? Love of country, love of one's own, love of one's friends, love of one's brother-man under the scheme of creation. It is the Christ spirit—the spirit of the true man—tender, yet strong.

"God rest you merrie gentlemen
May nothing you dismay."

It's a good motto for the profession that carries forward the healing art these days. With God in your hearts, go forward, be not dismayed. Man has no nobler calling than the ministration to his fellows. You are of these ministers.

Merry Christmas.

PHYSIO-THERAPY—WHAT DO YOU THINK?

The other day a surgeon remarked to me that anyone who believed in physio-therapy was a "son of a quack." Those were not his exact words, but they mirror their meaning. He used more forceful terms. Why? Is not such an attitude on the part of any one individual a sign of a one-track mind? Rather should not the attitude of the medical men of this age of progress be to investigate all things; hold fast to that which is good?

For ages surgery has been an established art. The trapped fox gnaws off his foot. Rough but effective, if the patient survives. For equally long-drawn ages mankind has practiced medicine in one guise or another—depending on a curative hope from the use of herbs and waters and minerals—and nowadays synthetic products under complicated names. So much for so much. Medicine and surgery are, however, well established in their place. They are two legs, as it were, of a profession given over to the combat of disease.

The question I am now inspired to ask, is there possibly a third leg? Galvanism and faradism are old. They are of age. Their possible application in limited fields has long been recognized. They are electric. But so is the high frequency; so is the quartz light in its source. Who doubts the x-ray within its field? Nobody who knows his stuff. And, after all, the proof of the pudding is in the eating. Seeing is believing. You believe in the efficiency of a method when you see results. I hold no brief for the physio-therapist. But let's be just. If the quartz lamp, the ultra violet ray, will heal an ulcer, cure a case of rickets more completely, more permanently than other commoner methods, why should it not be employed? If diathermy, a treatment now recognized and authorized by the Surgeon-General of the United States Army, and employed in the federal hospitals throughout the country, will save the life of a man with pneumonia of a type characterized by low temperatures, poor reaction to the malady of which he is a victim, why refuse to employ it at need? And today the physiotherapy departments of the government hospitals are showing some rather interesting results. In surgical tuberculosis it has effected undoubted cures. Viewed from an unbiased standpoint, it is a stimulant to metabolism more than anything else. But stimulation to metabolism may mean, in many cases, cure instead of the reverse.

Carrying the thing a step further, there is the psychic element. Some of us are prone to ignore this to the benefit of the cults. But the man in the streets likes to *see* what is being done to him, none the less. We do not believe that hitting a man in the small of the back with your fist, or even a padded hammer, will cure appendicitis, yet Ireland, in his experiments, brought out that pressure over the origin of the second lumbar nerve will cause pain in the region of a diseased appendix and prove of diagnostic value in differentiating that disease. Let's not be narrow; let's not have a one-track mind. Let's investigate. Let's hold fast to that which is good, no matter where we find it or what it is. To no one man are all things given. Physiotherapy appears to be a valuable adjuvant—a valuable addition to our available means of combating abnormal conditions, at the very worst that can be said of it.

Utah News Notes (reported by J. U. Giesy, associate editor for Utah)—Dr. E. F. Root has just returned from Cleveland and Chicago, where he attended the ceremonies incident to the installation of the new president of the Western Reserve University. Dr. Root also attended clinics in both cities while absent.

J. J. Galligan, Arthur Murphy of Salt Lake, E. J. Rich and E. C. Rich of Ogden attended the New York convention of the American College of Surgeons, in October.

William Rich of Salt Lake, secretary of the State Association, attended the meeting of the secretaries of the component state societies of the A. M. A. in Chicago, November 21 and 22.

As decided upon at the last county society meeting, the Salt Lake County Society will tender a testimonial banquet to Dr. Salathiel Ewing in December. Dr. Ewing is one of the oldest practitioners in Utah, and the oldest member of the society. December 24 is his ninetieth birthday. He is a graduate of Starling Medical College, Columbus, Ohio—which has now been absorbed and reorganized as the medical department of the Ohio State University—and was formerly the second oldest school of medicine in the state. For many, many years he has been a staunch and loyal supporter of the society, and did much in the past to further its growth and bring about the organization which now exists. Those of us who know him best have enshrined him in our hearts.

The department of registration reports legal proceedings instituted against John Klemeneau, and P. Kassinikos of Salt Lake County for practicing medicine without a license; also against O. F. Waldrum of Iron County for practicing chiropractic without license.

Incidentally, Ye Editor himself is taking a trip right

now, swinging around a circle from Omaha to Los Angeles and San Francisco. He will be gone a month.

Minutes of the Salt Lake County Medical Society Meeting of October 27, 1924 (reported by M. M. Critchlow, secretary)—The regular meeting of the Salt Lake County Medical Society was held at the Commercial Club, Salt Lake City, Utah, Monday, October 27, President A. A. Kerr presiding. Forty-nine members and two visitors were present.

B. F. Robbins presented a case of carcinoma of the lower lip on which he did a plastic operation three weeks ago. The patient was first operated in 1915, and since then has received paste treatment.

C. L. Shields described a clinical course of a case of tumor of the spinal cord. The pathological specimen was presented and discussed by T. A. Flood. The tumor was a glioma, taking its origin from the posterior root of the seventh dorsal nerve, left side. Discussed by W. G. Pace.

H. S. Scott described the appearance of a man's skull which had been shot by a 35 caliber full-jacketed bullet. Every heavy bone in the head was crushed.

Scientific program was devoted to a discussion of fractures. J. E. Tyree talked on fractures of the skull; he compared, in a very interesting manner, the present-day knowledge of head injuries with that possessed by the ancients, and then took up in detail the modern treatment. Discussed by Earl Van Cott.

W. N. Pugh read a very instructive paper on fractures of the extremities. He dealt chiefly with the principles of treatment, necessity of x-ray, and exact recognition of existing conditions, indications for open operation and treatment of infection. Discussion was opened by F. B. Spencer and continued by L. N. Cassman.

Juell E. Trowbridge's application for transfer from the St. Louis Medical Society was voted upon and he was unanimously elected to membership, thirty-six members voting.

Sol G. Kahn read a report of the Committee on Public Health and Legislation.

Meeting of November 10, 1924—A regular meeting of the Salt Lake County Medical Society was held at the Commercial Club, Salt Lake City, Utah, November 10, with President A. A. Kerr presiding. Forty-four members and four visitors were present.

The minutes of the previous meeting were read and accepted without alteration.

E. M. Neher presented the case of ptosis, left upper eyelid, following injury, operated with good result.

The program for the evening was arranged by the Utah State Ophthalmological Society. L. W. Snow read a very interesting paper on "Treatment of Common Colds." He dealt with the etiology, prophylaxis and active treatment. Discussion was opened by F. H. Raley, continued by G. N. Curtis, H. Van Cott, T. F. H. Martin.

The next paper was given by D. W. Henderson on "Perimetry." He discussed the anatomy of the eye, physiology of vision, pathology of visual fields, including scotomata and changes in the size and form of color fields. He described the above conditions in the various diseases, and illustrated his points by diagrams. This very interesting paper was discussed by J. E. Dowd, H. Van Cott, G. W. Pace, F. M. McHugh, John Z. Brown, and C. Fred Wilcox.

W. D. Donoher was unable to read his paper on the "Relation of the General Practitioner to the Specialist" because of an urgent call.

Application for membership by transfer of G. Wallace Hanks was voted upon, and he was elected to membership.

President Kerr announced that next month Salathiel Ewing would celebrate his ninetieth birthday. F. W. Beer moved that a banquet be tendered Dr. Ewing in honor of this event. Seconded and carried.

E. M. Neher announced that the Utah State Ophthalmological Society meets the third Monday of every month at eleventh floor, Boston building, and invited all those who are interested to attend meetings.

At Holy Cross Clinical Association's meeting of November 17, clinical cases were presented by Drs. T. W. Stevenson, Claude L. Shields, J. W. Sugden, Fuller B. Bailey, W. W. Barber, W. G. Schulte, and E. F. Root.

Pathological specimens by T. A. Flood.

Former Hospital Head and Physician Dies—Dr. Patrick S. Keogh, former physician in this territory and at one time head of a private hospital located in this city, died Wednesday at a local hospital. Death was due chiefly to infirmities of age. He retired from the profession about four years ago and had made his home at the Semloh Hotel. He was taken ill at his hotel Tuesday night and was removed to the hospital, where he died the following day. One son in business at Omaha survives.

Dr. J. J. Buswell Dies From Stroke—Dr. James J. Buswell, eye specialist of Salt Lake, died November 8 at his home, 1115 Third avenue, after suffering a paralytic stroke.

Dr. Buswell was born in Osceola, Iowa, in 1858. He established his home in Salt Lake twenty-four years ago. Mrs. Buswell died last May.

Surviving are two sons, W. M. Buswell, who is now on a business trip in Southern Utah, and Jay F. Buswell of Wilkinsburg, Pa.

Nevada State Medical Association

W. M. EDWARDS, M. D., Mason.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

1925 Meeting—Our 1925 meeting is to be held at Elko (and Lamoille, we hope). The date is to be decided later. Elko and her doctors are prepared to care for us as they did in 1920.

It is not too early to begin our program for 1925. Many of you know now that you would like to present a subject, and your secretary wants your name and subject. This is your invitation. It is impossible for your program committee, your president or secretary to see or invite you individually. So please get your name in early and plan on being at Elko. It will be a vacation, a profitable and a pleasant two or three days.

Think over any resolution, proposed amendment or communication you would like to have presented in the House of Delegates of the A. M. A., and submit same to your secretary to have introduced at Atlantic City, May 25 to 29, 1925.

The Opportunities of the Family Physician—Writing under this subject (Texas State Journal Medicine) J. E. Dildy says: "If only two doctors in each county medical society would see to it that all the doctors, the members of the auxiliary and the druggists in the county, were organized into one fighting unit, which would fight for the right man for representative, there would not be enough chiroquack lovers in Austin the next session of the legislature, to organize a poker party. There is not a family doctor worth mentioning, who has had ten years' experience in Texas, who cannot vote twenty-five men, and twice as many women. That makes seventy-five votes, plus those of the doctor and his wife, which makes seventy-seven for each member of the county medical society. That will carry most any county the right way."

Maternity Bonus in Australia—For the year ending June, 1922, the amount paid in the Australian commonwealth in maternity bonuses amounted to $3,500,000, of which about $75,000 was spent in administration, according to the London correspondent of the Journal A. M. A. Dr. Edith Barret, in discussing the question "Is the Motherhood of Australia Getting the Best Value from the Maternity Bonus?" answers, "No." On its introduction, the supporters of the measure claimed that it would increase the birth rate, or at least arrest the decline, and diminish maternal and fetal mortality. But since the introduction of the bonus, the birth rate has steadily declined. Child-bearing has not been rendered any safer. The decline in infant mortality has been trivial, and cannot be traced to the bonus. The rates from 1914 to 1921 are 71.5, 67.5, 70.3, 55.8, 58.6, 69.2, 69.1, and 65.7.

Medical Economics and Public Health

Doctors Becoming Critical of Advertising Literature — It always has been amazing the character of propaganda that medicine and health vendors will try to stuff down the throats of doctors by direct mail advertising. Formerly, too many doctors swallowed these loose statements or threw them in their wastebaskets and thought no more about them. CALIFORNIA AND WESTERN MEDICINE is much pleased to have a constantly increasing stream of this kind of literature sent to us by our members with appropriate marginal notes.

In one recent example a so-called "specialist," in his confidential literature to doctors, puts a statement showing the remarkable curative properties of his remedy in that dreadful combination of diseases "T. B. and Malnutrition." The same remedy apparently also cures varicose veins and several other things. If it did not take too much space, we would be glad to publish in detail the caustic comments of the doctors who sent us this particular example, on the loose statements made by this propagandist.

Of course, men of this kind cannot buy space in CALIFORNIA AND WESTERN MEDICINE, although they very frequently have the nerve to try.

On Improving the Race—"Medical science is finding ways to protect the imperfect and incompetent from nature's ruthless elimination; and medical science preserves the imperfect and incompetent tendency to posterity, to further contaminate the race," says the Nebraska Medical Journal editorially. "It would seem that the efforts of the physician today are well enough calculated to operate to the good of the individual; but that they are clearly and powerfully opposing the development of a better, stronger, healthier, and saner human race. . . .

"But why shall we conclude that nature and evolution have ceased working when man's mind enters into the work? The operation of man's mind is as much a 'natural' phenomenon as the unfolding of a flower or the falling of a meteor. There is no dividing line between 'nature' and the human brain. A skyscraper is as much the work of nature as a spiderweb; a surgical operation is no less natural than the building of a beaver's dam. The same set of rigid natural laws control them all."

What is Democracy?—According to "Woodbine Willie" (November Forum) "the problem of democracy is the problem of all government: how to secure a religious education that will make possible the social sublimation of the irrational and instinctive in man; how to tap adequate and untainted springs of public information; how to control and direct capital for the commonweal without destroying its essential character. How to solve this triple dilemma may become the despair of democracy."

According to Lincoln, democracy is "Government of the people, by the people, for the people." Another great statesman believes it to be "an optimistic belief in the power of an unfettered mob to govern itself." Best of all perhaps it is defined by Mazzini as, "the progress of all, through all, under the leadership of the wisest and best."

With such different explanations in the definition of democracy in government and the still greater confusion in trying to live up to any of them, is it any wonder that physicians and other special groups fall equally far short in either defining or living up to definitions that should obtain for their particular parts of government as a whole?

Women's Clubs and Medical Organizations—"For the coming year," says the Illinois Medical Journal, "a working program has been arranged with the Illinois Federation of Women's Clubs which involves active cooperation with the Illinois State Medical Society for constructive health work from the community angle.

Among projects to be fostered by the 70,000 federated clubwomen of Illinois, with the active aid of Illinois physicians, are a series of health conferences, the first to be given at Urbana, November 12 and 13, which will constitute a symposium of authoritative health counsel for laymen. At these conferences all speakers discussing disease, its prevention and cure, will be competent physicians recommended by the Illinois State Medical Society."

Estimated Cost of Sickness in New York—It is difficult to estimate the cost of caring for the sick and the loss of production caused by illness. "In New York City alone," says Thomas Riley (Long Island Medical Journal), "the hospitals and dispensaries spend more than $25,000,000 a year, and the physicians are paid $25,000,000 more. Probably $25,000,000 more are spent by our charitable health and relief agencies. The loss in wages and production of goods caused by sickness is beyond our present knowledge, but it may easily equal the cost of caring for the sick, giving us a grand total or more than $75,000,000 that sickness costs us in a single year in this city."

Wonderful When at Her Best—The nurse is not a physician, but at her best she is the helpmate and assistant of the physicians in her territory. It is not the duty of the county nurse to cart people off to specialists unless directed to do so; to negotiate half-price terms for work for people well able to pay; to waste her sympathies and energies on ne'er-do-wells, who court unmerited attention and who thrive on pauperization.—Nebraska State Medical Journal.

Nutradiet — Physicians, hospitals and other health agencies will join us in welcoming Sussman, Wormser & Co. to our advertising columns. Their new pack of Nutradiet Canned Fruits (packed without syrup) is a worthy attempt of manufacturers and wholesale merchants to meet the newer scientific requirements in reliable food products.

We commend the claims for Nutradiet to the consideration of all persons interested in nutrition and dietetics.

Belgium Physicians and State Medicine—"The sixteenth congress of professional medicine (Belgium) proclaims anew the right of a workman *employed by either a public or a private administration to choose his physician,* and has decided to work energetically toward the realization of this reform," says the Belgium correspondent of the Journal A. M. A. "For the time being, however, the congress has decided to support the claims of the appointed physicians; that is, the periodic revision of the lists of those who have the right to give treatment, the filling of vacancies, and the formation of a joint commission for the purpose of introducing reforms in the medical service of the railways."

Medical Journalism—Some time ago an article (New York Medical Journal and Record) said medical journalism was characterized "by loose thinking, sloppy construction and half-baked ideas, and added that the medical editor, as a rule, is a creation of circumstances and a misfit in the profession, who is obliged to eke out a half-existence as an underpaid compiler of medical thought with which in its broad sense he is relatively unfamiliar."

Other medical journals in this country and abroad have made interesting editorial comments on the statement. The Boston Medical and Surgical Journal says that "It is unquestionably true that there are too many medical journals published, and particularly in this country; it is also an undeniable fact that, in the medical profession, ability and success are measured largely by literary productiveness. Much of this is poor and it must find its outlet, which is not always in the poorer journals. To check this tide of publication would be an impossibility. . . . Authors will continue to bud like leaves through the hidden powers of nature, and the pruning must be done by the inexorable shears of the editor. In the editors' hands lies the future of medical journalism; if they are fearless and without favor a valuable type of literature will be fostered; if they seek only to fill

fair, white paper with the printed word, much of the criticism of the Medical Journal and Record will be justified. . . . Many editors carry on their editorial duties, not as a substitute for work in which they are misfits, but as a fitting complement to meritorious professional work of which they realize the breadth and dignity. They are not loose thinkers or half-bakers of ideas; they are not creations of circumstances or misfits in the profession. They are men of judgment and sturdy character who are perpetuating the ideals that they have found in a profession of ideals."

Gelatine in Diets—The dietetic importance of pure, plain, granulated gelatine has attracted so much attention, and the demand for more information has reached such a volume, that the laboratories of the Charles B. Knox Gelatine Company, who are extensive advertisers in medical publications, have prepared a book of dietetically correct recipes with gelatine for diabetes, nephritis, high blood pressure, gastritis, gastro-intestinal disorders, fevers, constipation, obesity, and general malnourishment in infants and adults.

The recipes have been most carefully worked out under authoritative auspices, and with each recipe is given a quantitative analysis of carbohydrates, fat, protein and calory value.

The book will be mailed upon request—postpaid and free of charge—by the Charles B. Knox Gelatine Company, Johnstown, New York, to any physician or dietitian who requests it. Why not send for it?

Financial Information and Service—The Anglo London Paris Company have been for some time giving members of the medical profession good financial advice in paid space in CALIFORNIA AND WESTERN MEDICINE. They offer to serve you. Why not try them? They are helping to support your journal.

Other banks and financial advisors who are old friends to our members through advertising are Wells Fargo Bank and Union Trust Company.

Silent Call Signal System—We are glad to call attention of hospitals and other health agencies to the offerings of C. F. Hartung Company, Los Angeles, in the advertising pages of CALIFORNIA AND WESTERN MEDICINE. The Hartung Hospital Silent Call Signal System is an excellent one, and it will be worth your while to consult them before placing your order.

The Doctor Who Reads the Latest Medical Books—It is worth the while of all our doctors to read the page advertisement of The Emporium under this heading in this issue. CALIFORNIA AND WESTERN MEDICINE feels that, in encouraging our two good medical book stores (The Emporium and J. W. Stacey), both of whom are advertisers in the Journal, we are rendering a distinctive and definite service to the cause of better medicine. Either of these good advertisers will not only secure any book published in any part of the world at any time for any doctor, without red tape, but they stand ready to serve him in a good many ways.

Another Step in the Reduction of Hospital Costs—The announcement of the Oaks Sanitarium, published elsewhere in this issue, is a step in a somewhat unique and interesting effort to bring the cost of hospital care of curable tuberculous patients who cannot afford to pay the full costs of such service within their means. The principle underlying this movement is, that the sanitarium has donated the land and the services of the medical staff free, in a new building to house twenty patients who are to pay $3 per day for complete service. The building itself has already been largely subscribed, and no doubt will be completely so in a reasonable time, by citizens who are interested in the problem of economical service to the sick.

Doctor Voorsanger feels that, with a building donated by the public and medical service donated by himself and his staff, and by a careful prorating of other fixed charges connected with such a building, he can and will serve—and serve well—patients of limited means at $3 per day. This is frankly an experiment in medical economics that will be watched with a good deal of interest by all persons engaged in the work of hospital betterment.

What a Fee!!—Health News, an official publication of the New York health board, in discussing physical examinations for school children believes that it is not generally known that a physician is entitled to a fee for examinations for working certificates to school children. The Compulsory Education law states:

Fee for Making Physical Examinations—Except in a city of the first class and of the second class, *a fee not exceeding 50 cents* shall be paid to the physician designated by the board of health for the physical examination required by the provisions of this section, and this fee shall be a charge against the city, town or village where the child resides.

A good, fast, hard-working physician could make almost as much as a day laborer at this job.

"I do not intend, for one moment, to belittle specialization, or group practice, or the city doctor. I sincerely believe that the medical education today is better than ever before," says Roland Breuer (Kansas Medical Journal). "These all have their indispensable place in the practice of medicine. *What I do wish to do is to emphasize the necessity of the beginner, whether he be mechanic, carpenter, lawyer or engineer, to apprentice himslf to a master mechanic for some years.* Especially so in the case of the physician, for he is mechanic, carpenter, lawyer, engineer, and more—minister and healer.

Wholesaling Medicine—The organization of corporations to conduct periodic medical examinations and to otherwise practice medicine according to business methods is coming rapidly to the fore as THE big problem of the medical profession. In an editorial on the subject (Journal of the Kansas Medical Society) it is stated, among other interesting points, that "a great many fortunes have been made in the patent medicine business, and when it has been found that better returns may be made in promoting scientific medicine, there will be no lack for capital. Corporations will be formed for the exploitation of popular surgeons and popular physicians, singly or in groups, who will be secured under contract and at salaries that will seem to justify them in ignoring any ethical regulations organized medicine may propose."

NOTES FROM THE CALIFORNIA BOARD OF MEDICAL EXAMINERS

Another Law That Can't Be Enforced—We do not know of a single instance where one of the so-called Chinese herb doctors who advertise extensively in various sections of California have a license entitling them to practice in this state.

So far as our information goes, none of these Chinese herb doctors has any particular training. In fact, we understand from a history of the Chinese that these individuals need only announce themselves to be a doctor, and that they need have no special training or education.

Our attention was recently directed to an article printed in the Dearborn Independent of August 9, 1924, entitled "How Chinese Quacks Wax Fat"; also, the Dearborn Independent of August 30, 1924, entitled "Stream of Patients Flow to Orientals."

Reports have come to us that various Chinese herbalists in this state are in some instances engaged in the abortion business, and in some other instances their store is apparently conducted as a blind for the sale and distribution of narcotics.

It would seem apparent in some localities that underground influence makes it impossible to convict Chinese herbalists of violation of the laws of this state.

"Nothing should be taken for granted in a medico-legal case—not even the fee," says Sir John Collie (The Practitioner). "More mistakes are made, and reputations lost, through a slovenly habit of assuming things than through ignorance."

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MEDICAL STRAWS

By THE EDITOR

Experience is fallacious and judgment difficult

U. S. Government Recognizes Practical Nurses—The United States Civil Service Board has called for an examination to fill the position of *practical nurse*. This examination will be held throughout the United States, and the entrance salary for these women will be $1200 a year with complete maintenance. The duties of the position, says the advertisement, consist of "general nursing of the sick under direction of a physician or graduate nurse and such other duties as may be reasonably required."

This is quite an interesting and significant development in the field of government control of medicine.

Vasectomy, including the much-vaunted Voronoff method, is now being extensively practiced in Germany as an ordinary office service, requiring only five to ten minutes of time. "All that is needed for it," says Doctor Levy-Lenz, "is a pair of scissors, a knife, two surgical forceps, a probe, needle, suture, tenaculum, and a local anesthetic."

Its contraceptive qualities make it more popular with young bucks than does its doubtful and always delayed sex-restoring function to the aged.

One day recently a great metropolitan newspaper contained an article about the causes of cancer, by a "celebrated" British physician, who argued that cancer is due to chronic poisoning and vitamin starvation continued over a period of years. And almost the same day another "celebrated" American physician had an article in a prominent weekly about the cause and cure of cancer, and this physician emphasized the fact that cancer is "encouraged" by overfeeding, and leaves the impression that a wise sort of diet (undescribed) will prevent this disease.

What will the public believe when we write like that?

Pasteur and Scientific Journalism—In a letter written in 1866 the illustrious Pasteur said:

"How worthy and useful the mission of scientific journalism is when the proper moderation is shown in the expression of opinions on persons and accuracy in the statement of alleged facts."

What Constitutes the Practice of Medicine Legally—According to law, "a person practices medicine (in the state of New York) who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity or physical condition and who shall either offer or undertake by any means or method to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or *physical condition.*"

Do you suppose that this strict law explains in any way why certain medical agencies with headquarters in New York practice medicine in California by mail?

"The practice of the healing art (in New York), whether by the employment of a knowledge of science, by prayer, laying on of hands, adjustment of vertebrae, incantations, or any other means, comes within the statutory definition of the practice of medicine."

Various groups of cultists, quacks, healers and near doctors have combined their influence to have this New York law changed. They are likely to succeed because they will spend of their time, money and other resources and will co-operate to gain their ends.

Do You Know What Kind of Milk You Are Drinking?—Unless you live in one of a few congested centers in California, the answer is, that you don't.

The state is spending a good deal of money to insure good milk, and it has some capable men who are trying to enforce the law, but there is not enough money and there are not enough men. Our laws are not good enough and they are not completely enough enforced.

The Attorney-General of the state, according to news dispatches, has recently ruled that the present dairy law, for example, prohibits printing the date of pasteurization on the cap of a milk bottle. Some law!

Milk is a good food and we ought to keep on encouraging its use, but more important than that is to know what we are drinking when we think we are drinking milk.

Sex Education—"It does not mean merely information about the consequences of the gross misuses of sex—prostitution, venereal disease, and the like," writes M. J. Exner, M. D. (Social Hygiene). "Nor does it mean merely imparting information about the biological and physiological facts of sex. All this, to be sure, belongs to sex education, but sex education must reach deeper than the intellect alone. It is a vital phase of character education, and character education by way of the intellect alone is never likely to succeed. We must touch the deep springs of life, and these lie in the emotions and affections."

If this is true—and it is—who is wise enough to teach it to your child and mine?

"A doctor is not on his oath always to tell the whole truth to everyone who consults him," says the British Medical Journal editorially. "He has to treat the patient as well as the disease; there are occasions when it is wiser to speak of blood poisoning than to blurt out syphilis."

Youth—It has become a habit to laud the superiority of youth, and to minimize the advantage of judgment, which was formerly supposed to be acquired by experience.

Habits are often dangerous to individuals or masses.

Nervous persons are sick persons, and because the ailment happens to affect their personalities rather than their bodies, there is no justification for refusing them medical relief.—Hygeia.

To the well-trained neuro-psycho pathologist there are lesions that no autopsy will suggest and no microscope reveal. Like the radiologist's findings, they are based upon shadows, but nevertheless they are significant and useful.

Our Lady Nicotine—Our much-beloved Lady Nicotine, she of the seductive influences and of many followers, is again being judged. Her motives, methods, and objectives are being called before the bar by juries of uplifters who are searching for a Volstead to drive her from the avenues to the underworld and beyond the twelve-mile limit. Mr. Irving Fisher (Dearborn Independent) is one of the latest to prefer charges against this comforting prodigal distributor of her favors.

"Know syphilis in all its manifestations and relations and all other things clinical will be added unto you."

How wise and farseeing was our beloved master when he uttered these words.

Speaking of Vitamins, may not the discovery of vitamin "E" or "X," without which it is claimed *fertility* cannot take place, prove to be the solution of the pestiferous problem of "birth control"? All that will be necessary will be the publication of a complete list of all foods that contain this vitamin!!

Is This a Slogan or a Criticism?—"A de-sexed educational system is no longer tolerable," concludes Exner (Social Hygiene).

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