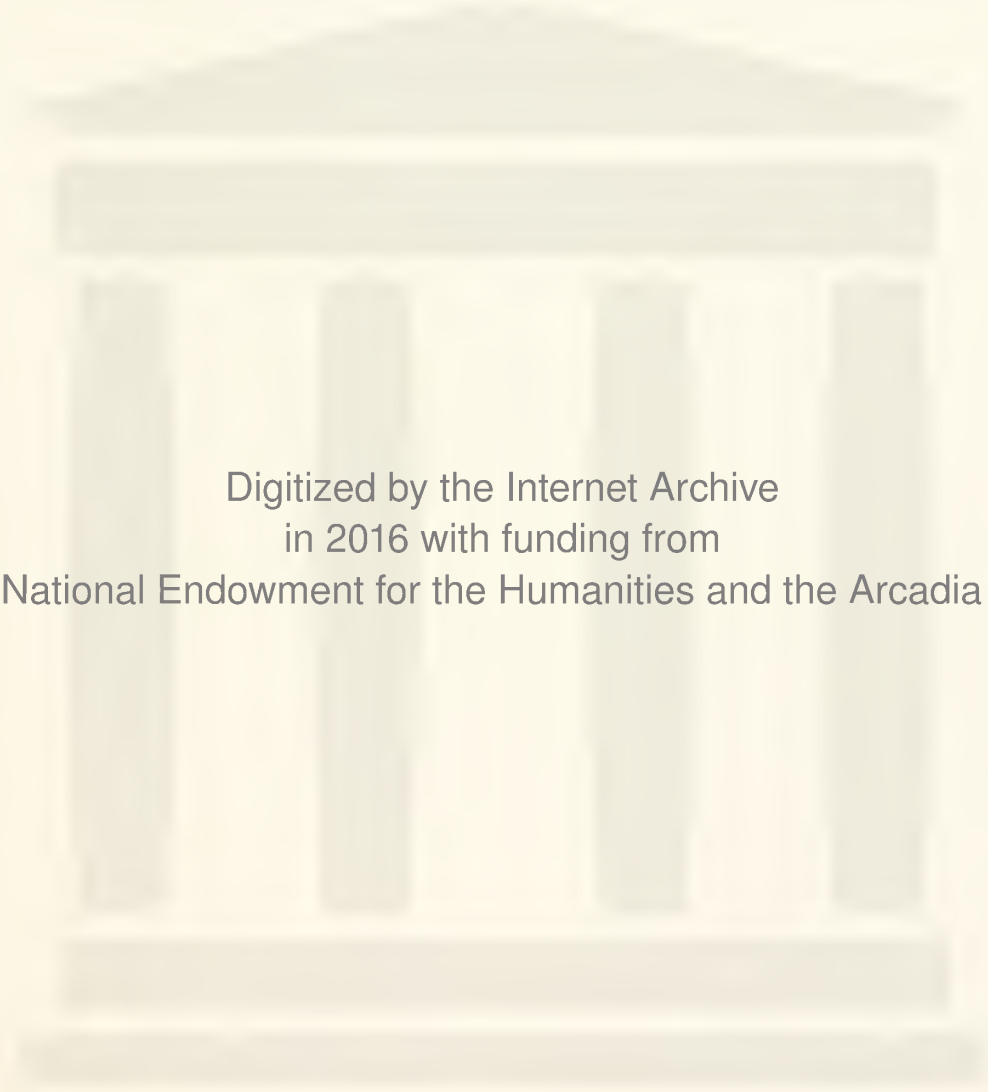

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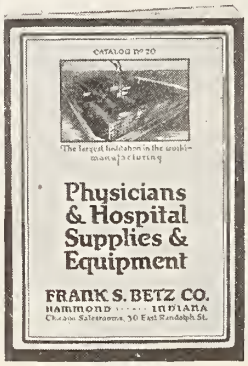

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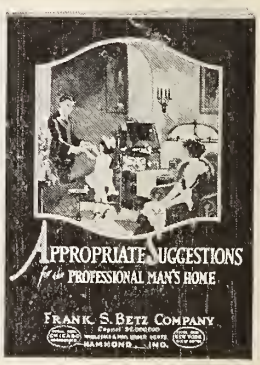

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Original Articles

CARCINOMA OF RECTUM AND SIGMOID.*

RICHARD R. SMITH, M.D.
GRAND RAPIDS, MICH.

What I have to say this afternoon on the subject of "Carcinoma of the Rectum and Sigmoid" will be addressed to the practitioner, rather than the surgeon or specialist in rectal diseases, who knows quite as much or more than I do about it. In spite of the fact that the surgical treatment of carcinoma of the lower bowel has been elaborated to a high degree of perfection and offers today excellent results when the disease is recognized early, surgeons are still receiving these patients but little earlier than ten years ago. The great majority of them when they finally do come are advanced and well beyond any hope of cure.

The promptness with which patients with malignant disease reach the surgeon depends first upon the patient himself, his general intelligence and knowledge of the early symptoms of the trouble; second—upon the practitioner to whom he usually goes. The education of the public on these matters is something which we may not individually be able to control, but certainly there is a serious responsibility placed upon us all when the patient sooner or later comes to us. In my experience the failure of the practitioner to act promptly has been due first to a lack of knowledge of the early symptoms of these diseases, and second, to a hesitancy to make rectal examinations. It seems to be commonly thought that such examinations are difficult, require expensive apparatus and are unpleasant. As a matter of fact they are not.

It is well to bear in mind that carcinoma of the *rectum* itself rarely produces obstruction, even in the latter stages, whereas it is usually an early symptom when higher up. I think bleeding is usually the first symptom of the disease, and since it is common with hemorrhoids, its significance is often overlooked. It is at this stage usually more or less constant and small in amount. A certain degree of discomfort is usually present in the rectum, but this may be so slight as not to excite attention. Bleeding from the rectum always demands an examination and I am sure if this were the general practice that the mortality from rectal carcinoma would at once be decidedly decreased.

In carcinoma of the sigmoid (or recto-sigmoid) the earliest symptom is usually obstruction. It is surprising how much the lumen of the gut is sometimes narrowed before the patient has pain or other disturbance of function. However, it of course occurs sooner or later. Slight cramplike pain in the abdomen occurring constantly or frequently should call for examination. An interesting symptom is diarrhoea, especially in the morning. It occurs often enough to be significant. Blood and discharge are usually fairly late symptoms in carcinoma of the sigmoid. I am not going into late symptoms of these diseases. They are only too familiar to us all and reflect a wide and hopeless extension of the disease.

Now in regard to examination—few things are necessary. The patient is placed first in the ordinary position on the back with the feet in stirrups, buttocks to the edge of the table, and thighs apart. After examination of the external parts the well oiled gloved finger is passed slowly into the rectum. Any growth or induration in the wall of the rectum can usually be detected without difficult. The finger then is passed upward toward the lower end of the sigmoid. If there is a growth in the sigmoid at or near its junction with the rectum, it can ordinarily be made out with ease. The feel like a cervix protruding into the rectum is familiar to us all, is almost pathognominic, and almost always present where the growth is present at this point. A bimanual examination especially in thin people often reveals the presence of a tumor. If not, when the examinaton up to this point has been unproductive, one places the patient in the knee chest position. The

*Read before the Surgical Section of the Michigan State Society, May 26, 1920.

knees should be placed wide apart for greater stability and about six inches from the end of the table. The thighs should be straight up and down, the chest, with the head turned to one side, should rest flat on the table or on a thin pillow. One requires only two tubal rectal speculums, one short, say 3 inches in length for better inspection of the parts just within the anus, and the other about 6 inches in length for inspection of the upper rectum and lower sigmoid. I do not think that longer speculums are of use—at least to the ordinary man. By careful manipulation one may pass this beyond several folds in the sigmoid and obtain a good view of the gut up to this point. Beyond this a longer speculum cannot be passed with safety by most of us. A good headlight and a pair of long, thin dressing forceps are the only other instruments required. If we have failed to reveal the trouble our next step is the use of the X-ray. This, of course, may only be properly done by an X-ray man well trained in fleuroscopic technic and with suitable apparatus, Every large city has one or more such men. We have found a mixture of barium injected into the rectum and followed with the eye on the screen a most satisfactory method of detecting stricture of the lower colon and even higher up. Distinct signs of stricture must be regarded with greatest suspicion.

The methods given above are simple. I think that any physician who will make one such ordinary examination a week, will in six months become expert enough to be able to detect or exclude with comparative certainty the diseases we are discussing.

Now as to indications for the several operations done. This should be left in a large degree to the judgment and experience of the surgeon himself. But certain general rules may be followed. If the growth is at the anal opening and lower than the internal sphincter—a condition which is comparatively rare—the removal of all the lower end of the rectum with the adjacent skin and the inguinal glands on both sides is the operation of choice. If the growth is well within the rectum, but still limited to the lower three inches, the removal of all the rectum is indicated, bringing the lower end of the sigmoid to the end of the sacrum which, of course, has been partially amputated in the performance of the operation. This makes a fairly satisfactory anus and is to be preferred to an abdominal one when the rectum alone is removed. When the growth is higher up in the rectum and well away from the anus, the question arises as to the preservation of the sphincter. There is danger in too much conservation at this point and still one is justified in preserving the lower end of the rectum with the nerve supply to the sphincter if the growth is small and the technical difficulties not too pronounced. If there is no recurrence the results are ideal.

When the growth is at the recto-sigmoidal juncture the preservation of the lower end of the rectum with the natural anus is allowable and the choice of a number of procedures is open to the surgeon. He may approach it from above, examining as soon as he opens the abdomen, the liver for possible metastases and finding all clear and the growth itself operable, may proceed to free the lower sigmoid with the growth, from its peritoneal attachments, remove it well below the growth and after inserting a large tube in the proximal end of the gut pass it out through the anus and do an anastomsis of the ends. If the difficulties in doing this seem to be too great the surgeon may divide the sigmoid well above the growth bringing the proximal end to the abdominal wall for an artificial anus at this point and afterwards remove the lower end of the bowel with the growth, from below.

When the growth is well up in the sigmoid and the same can be freed and bronght through the incision, an ideal procedure as far as safety goes, is to unitc the upper and lower limbs of the bowel by suture, close the abdomen leaving the growth protruding from it and remove it with the scissors in a week or ten days—a long forceps is then passed into the bowel, one blade in either limb and clamped—the forceps are later removed. The intervening portion between the two limbs sloughs giving free anastomsis and the abdominal opening closes spontaneously or may be closed by simple operation if needs be. When the growth cannot be brought through the wall an end to end anastomosis may commonly be done. I have attempted here merely to outline this work. The purpose of this paper is rather to interest the practitioner in this field, to point out the simplicity of making a proper and early diagnosis with the hopes that here in Michigan at least we may make some improvement in our results.

SURGICAL AND NONSURGICAL ASPECTS OF CHRONIC GASTRIC AND DUODENAL ULCERS.*

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With the gradual growth and the natural extension of the Clinic's activities into the fields of graduate teaching, research, and medicine, in recent years the purely medical aspects of gastric diseases have received greater attention. Medicine in its broad aspect includes surgical and nonsurgical therapy, and the surgeon after all is only a physician who operates. Under certain circumstances surgical therapy is uniformly indicated and under other circumstances only so-called medical measures, such as rest, drugs, and dietotherapy, should be instituted. An internist by choice and natural inclination yet intimately acquainted with surgical procedures and end results I may be in the unique position of evaluating both methods of treatment without professional bias or personal animus.

SURGICAL TREATMENT: INDICATIONS, ADVANTAGES AND RESULTS.

Surgical interference is urgently indicated in acute perforations as soon as diagnosed; and in sequelae or complications of ulcer such as pyloric stenosis, hourglass deformity, malignant degeneration, recurring severe hemorrhage, subacute or chronic perforation with involvement of neighboring viscera, crippling gastric functions, and in all cases not responding satisfactorily to medical treatment. Frequently in uncomplicated cases, especially those of long standing, by virtue of personal choice for economic reasons or inability to obtain expert medical skill an operation is justifiable. The inherent advantages of good surgery I believe are due to the rapidity with which permanent cure may be achieved, the removal of associated intra-abdominal disease, and the recognition and radical extirpation of malignancy in its incipient and curable stages. Failure to achieve the desired operative end result in the past was largely due to two reasons; (1) technical error the result of an incompletely developed technic, and (2) performing gastrojejunostomy in the absence of a lesion. Present-day causes of failure in the hands of the conscientious and skilled surgeon constitute a small and almost unavoidable number, chief among which are gastrojejunal ulcers and rarely, recurring ulcers. The increasing tendency to diagnose first and to operate afterward, the avoidance of any surgical procedure in the absence of a demonstrable lesion, the routine resection or excision by knife or Balfour cautery of a gastric lesion or a bleeding duodenal ulcer have greatly improved surgical end-results. Not infrequently the recurrence of symptoms in the neurotic or asthenic ulcer-bearing person is classified as a surgical failure when the trouble is invariably of functional origin; the ante-operative prognostic conservatism and the postoperative therapeutic indications in such persons are obvious. Satisfactory surgical end results (complete cure or marked improvement) range from 75 per cent. in certain types of gastric ulcer cases to 95 per cent. in the advanced pyloric obstruction cases. The immediate surgical mortality in all cases of peptic ulcer is about 1.5 per cent.

MEDICAL TREATMENT: ADVANTAGES AND INDICATIONS.

Among the rank and file of the profession there is a general feeling that all uncomplicated ulcers should have the advantage of consistent medical treatment before surgery is advised. This is a sane and commendable viewpoint, and while treatment is frequently instituted it invariably fails because it has not been sufficiently intensive, and on that account medical methods for curing ulcers have been condemned both in principle and practice, especially by the surgeon. Furthermore there is considerable scepticism relative to the permanency of cure even by adequate medical management in the hands of those most skilled and thorough, beside the conviction that ulcers are not always present in the treated cases. The disclosures on the operating table in cases in which medical treatment has been given warrant such an impression. Frank and straightforward statistics of ultimate end results by leading exponents of medical therapy would disarm criticism and place a proper evaluation upon a commendable procedure. Perhaps the best justification for at least making a conscientious attempt nonsurgically to cure an ulcer-bearing patient is by virtue of the fact that a chronic ulcer may heal spontaneously or with little treatment. The majority are resistant to ordinary treatment and some may go on to a complicated stage in spite of all efforts. I have seen striking instances of five and six-year cures following ambulatory treatment even under unfavorable circumstances, and while this is the exception rather than the rule, no one can prognosticate what may occur in an individual case until a serious therapeutic attempt has been made. Medical treatment is especially indicated in the young patient with a brief period of trouble, in those suf-

*Presented before the Michigan State Medical Society, Kalamazoo, May, 1920.

fering from associated advanced disease of the kidneys, respiratory, or cardiovascular system, in severe diabetes, in the obese, the aged, or in patients with any other condition which would make surgical interference hazardous, and of course in those who refuse operation. My personal experience in the treatment of gastric and duodenal ulcers in a considerable number of primary as well as postoperative cases extends over a period of three years and is therefore too short to be of statistical value at this time. With few exceptions only patients with a consistent syndrome verified by the roentgenologic examination were admitted to the medical wards.

The outstanding advantage of medical management to the patient is that proper instruction in personal hygiene and the suitable selection and preparation of his food go hand in hand with his active treatment. The importance of thorough mastication is emphasized. Foci of infection, especially in the throat, teeth, and sinuses, are routinely removed. Co-operation of the patient is readily secured if he is informed in simple detail of the steps necessary to accomplish the desired result. Ulcer like diabetes or tuberculosis is a chronic disease, really in many respects a diathesis, in the cure or satisfactory alleviation of which the co-operation and intelligent training of the patient is often vital. I believe that the surgeon has been signally negligent in these details. As Gerster says, too much reliance is placed on the mechanical side of treatment to the neglect of the dietetic and psychic factors. It is strange that the results have been so good.

Successful treatment presupposes an exact knowledge of the etiology, pathology, and morbid physiology of a disease process, and in the absence of such knowledge treatment is of necessity empirical. In many respects our knowledge is still incomplete because fundamental problems are involved. The infectious origin of ulcers, that is regarding ulcers of the stomach and duodenum as largely embolic infections from some distant focus (Rosenow), is an entirely acceptable theory to the clinician. More recent research on the physiology of the stomach by Cannon, Carlson, and others has thrown much valuable light on the motor activity of the stomach in the normal and pathologic states and on the mechanical factors of digestion. It is questionable, however, how much the extension of our knowledge in this field has been of practical help in the daily diagnostic and therapeutic problems of the internist. The corrosion theory and the mechanism of pain in ulcer are still matters of ardent controversy and the results of competent observers based on physiologic studies of pathologic human stomachs are conflicting. The difficulties that confront the scientific investigator in this field can be appreciated when so acute an observer as MacKenzie is moved to say that "to understand the full significance of pain in any case, we have to know a great many matters which are still hidden from us. The tissues capable of producing pain, the nerves in whose distribution the pain is felt, the manner in which the pain spreads, and the laws governing the spread of pain; the character of the pain itself; the manner of its onset and its variations, and the phenomena with which it is associated, are all matters which it is necessary to understand before we are qualified to undertake an investigation into the disease."

To the practical physician peptic ulcer connotates infection, pain, acidity, and spasm. Any break in the vicious circle should have a salutary effect; and any method or system of treatment which accomplishes this purpose in an effective manner, and with which the physician is entirely familiar, should be employed.

METHOD OF TREATMENT.

I employ the milk and cream and alkali methods, as advocated by Sippy, with slight modifications. The opponents of the corrosion theory find much to criticize in this method. However, in my experience the method is simple and effective, and I have chosen it largely because of these virtues rather than because I am a champion of any particular theory or hypothesis. Rest in bed for three weeks is routinely ordered, and in most instances work may be gradually resumed within five weeks after beginning treatment. During the first week from 7 a. m until 9 p. m., 2 ounces each of milk and cream are taken hourly by the patient and midway between feedings powders are given, No. 1 consisting of 15 gr. each of sodium bicarbonate and calcium carbonate, alternating with No. 2 consisting of 15 gr. of sodium bicarbonate with 10 to 15 gr. of heavy magnesia. The gastric contents of all juxtapyloric ulcers during the first week or ten days are gently withdrawn by a Rehfuss tube at 10 p. m., or by an ordinary stomach tube if pyloric stenosis is present, in order to control night secretion and for titration estimations. Every second afternoon the contents are aspirated during the digesting period to determine if an accurate neutralization of the free hydrochloric acid is maintained as this is the object of our efforts. If the acidity is not controlled 10 gr. of soda may be added from time to time to each powder which may be taken with from 2 to 3 ounces

of water. The milk and cream mixture is poured into an empty effervescing citrate of magnesia bottle, which is placed in a porcelain pitcher of ice water. The powders in a properly labelled paper carton, drinking water, and a measuring glass are provided. By the end of the fourth day and not later than the seventh day the following addition to the diet may be made: Three or four fresh soft-boiled eggs, one at a time, and 9 to 12 ounces of a well-cooked cereal, 3 ounces at one feeding to be given each day. The cereal is measured after preparation. The egg and cereal are to be alternated and given as a substitute for one of the milk and cream feedings. If the acidity is readily controlled and the weight maintained feedings may be taken every two or three hours, increasing each milk and cream feeding to 3 ounces respectively. During the second and third weeks the evening aspirations are discontinued unless indications for their use persist, and food such as the following articles may be substituted or added gradually: Vegetable purées, bread and butter, custard, junket, thin cereal, gruels, cream soups, jellies, marmalade, fresh creamed cottage cheese, and corn-starch pudding. The basis is milk, cream, eggs, cereals, and vegetable purées.

"If desired, at the end of ten or twelve weeks the length of time between feedings may be regularly increased to two hours, and the powders continued midway between feedings, as before. Approximately twice the quantity of food should be taken at each feeding, and two powders midway between feedings. The free acidity is not as accurately controlled under such management as when the food and powders are taken hourly."

"At the end of twenty or more weeks the patient may eat three small meals daily and take a glass of equal parts milk and cream about midway between breakfast and the noon meal, and between the noon and evening meals. Two powders should be taken midway between the breakfast and the glass of milk and cream mixture. Two powders should be taken midway between the milk and cream mixture and the noon meal. In like manner, two powders should be taken midway between the afternoon feedings and two powders approximately one and two hours after the evening meal, and again two powders at the end of three hours after the evening meal."

Successful medical management of a considerable number of patients at all times presupposes a trained personnel, prompt in attendance on the particular needs of the patient and in carrying out orders. Worry or anxiety and mental or emotional strain for any reason greatly retard favorable response to treatment. Whenever necessary the reeducation of the patient, so that his occupation may be carried on with a minimum expenditure of nervous and physical energy, should be carried out. The immediate beneficial response to treatment is the rule. The pain and acidity of nonobstructing gastric ulcers are quickly dispelled, and roentgenologic examination at the end of the third week invariably shows a disappearance of the niche. However, this is not a criterion of permanent healing. Duodenal ulcers, especially the long standing calloused ulcers, are more slowly responsible. Stenosing ulcers naturally require longer periods of treatment and more frequent prolonged aspiration. In obstructed cases due to organized cicatrix the interests of the patient are best conserved by a posterior gastrojejunostomy. Every gastric ulcer in which the initial symptoms appear during or after the fourth decade of life must be looked on as potentially malignant and medical treatment should be supplemented by constant clinical supervision. In a few of our cases of early obstructing duodenal ulcer due to inflammation and edema medical management caused subsidence of pain and hyper-secretion within a week, and the normal emptying capacity of the stomach was established within three weeks.

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PATHOLOGY OF PEPTIC ULCER.

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I think I can show you the relation between ulcer and carcinoma of the stomach best by showing you lantern slides. There should be no difficulty in understanding, I think, the relationship between ulcer and carcinoma. I shall say nothing whatsoever about acute ulcer and confine my attention to chronic ulcer.

There has been much discussion in the literature about what percentage of gastric ulcers become malignant. I might say something about that in this manner. No one knows what percentage of gastric ulcers become malignant and probably no one will ever know what percentage of gastric ulcers become malignant. Certainly not until we can experimentally produce chronic gastric ulcers and then experimentally produce gastric carcinoma on those ulcers. Of course, no one has been successful in doing either.

Before we get through, I hope to show you that it does not make much difference whether you think the carcinoma starts on the ulcer or not. The main point is simply this: that the chronic gastric ulcers are sufficiently frequently associated with carcinoma to make every ulcer suspicious of carcinoma from a clinical standpoint, but remember that I mean only chronic gastric ulcers, not acute gastric ulcers.

Now, there are a few simple facts. Chronic gastric ulcers occur in the stomach as single lesions and as multiple lesions. In certain gastric ulcers we find the epithelium, which is the natural place for carcinoma to arise, practically normal. In some gastric ulcers, in the same location, we find this normal epithelium replaced by cells which are undifferentiated, cells either ovoidal or spheroidal, sometimes irregular in size. These cells are intra-tubular cells. Of course we have no right from such a picture to make a diagnosis of carcinoma, in spite of the fact that the cells are morphologically identical with cells we definitely know are carcinoma.

In some other chronic gastric ulcers in the same region on the border of the ulcer, we find not only these ovodial intra-tubular cells resembling carcinoma cells, but we find these cells have migrated into the surrounding tissues and give you a picture which is carcinoma.

Now, there is one picture which I shall show you. There are so few cells outside of the tubule that even some pathologists might tell you that the picture is not carcinoma. But in the case which I shall show you, the patient died of carcinoma, secondary to an excision of this ulcer in which no more was found than I shall show you in a certain slide. The patient came back a year and a half later with an inoperable carcinoma, and subsequently died.

The first slide clearly proves that chronic gastric ulcers occur as multiple lesions varying in diameter and varying in depth.

Here are five gastric ulcers. There were six ulcers on this specimen, the sixth one having been cut out. That was the only carcinomatous ulcer in this case.

The next slide will be a cross section through this specimen. If you could see this picture distinctly, you would see all the graduations of destruction of the wall of the stomach. You can see the scar tissue.

The next slide is a section of the smallest ulcer showing destruction of the mucosa and muscularis mucosa. The outlines of the ulcer are characteristic; and the crater which you see does not extend into the sub-mucosa.

This is a section through the wall of the second ulcer in size; the crater extends into the submucosa, the muscularis mucosa, being the line of demarcation. Here we have a certain amount of distortion of the glands in the mucosa.

The next slide is a photograph of a gross specimen containing a single gastric ulcer. The ulcer was about one centimeter in diameter; with a specimen in your hand it is impossible accurately to say whether or not this ulcer is carcinomatous; and of course we cannot expect the clinician and the x-ray man to make that differentiation.

The next slide is a gross specimen showing the base of the ulcer adherent to the pancreas. A section through this ulcer shows necrosis in the base and a very characteristic arrangement of the scar tissue. The lines of the scar tissue are usually perpendicular to the surface of the crater. This is the only V-shaped chronic ulcer I have ever seen. You remember that Virchow talked about V-shaped ulcers, but I am sure he had in mind the acute ulcer. The chronic ulcers are somewhat U-shaped.

Of all the ulcers which I have seen, this slide represents best the typical histological picture of chronic gastric ulcer. We have usually distortion of the glands in the border, lymphatic infiltration and the characteristis arrangement of the scar tissue in the base plus necrosis. Now, it doesn't make much difference what layer of the stomach is involved in the base, whether it be the tissues of the sub-mucosa muscularis, or of some adjacent organ, the bottom of the crater is always necrotic.

The next slide is also from another simple ulcer, a small ulcer of a half a centimeter in diameter. If you want to guess as to the probability of that being malignant, you will have a pretty hard time. As it happens this is a simple gastric ulcer.

I will give you one general practical rule which might be of value to you, especially to surgeons and x-ray men. An ulcer larger than a quarter is usually, in my experience, carcinoma. I mean chronic gastric ulcer. There are some exceptions to this rule. As a good work-

ing surgical rule, it works very well in our experience. I so often say to the students, "If you hand me an ulcer, I can guess it is a carcinoma by the size and be right most of the time."

The next slide is a section through that simple ulcer. This is an extraordinarily deep ulcer, as you will see.

Here we have a gross specimen of a small ulcer and a larger ulcer one in the same specimen. I want to emphasize that it is impossible with a specimen in your hands—perfectly fresh or not—to say whether or not that is carcinoma. You can say nothing positive until you have examined it under the microscope.

We have in the next slide another specimen of a typical chronic gastric ulcer. Again it is impossible to tell whether or not it is carcinoma. A gross section through the same specimen, showing the overhanging border and the characteristic crater. Now, what portion of this ulcer must we examine in order to find early carcinoma? I emphasize "early carcinoma." If it is late, you can find it any place in the specimen. We are not especially interested in late carcinoma because we can't cure it by any known methods or means. We can cure possibly the earlier cases.

If you read text books and some articles you will find they say that carcinoma starts in the base of an ulcer. From my own experience I wish to say that whenever you find carcinoma in the base of an ulcer you can also find it in other portions of the ulcer. I wish also to say the earliest carcinomatous changes I have seen have been in the border of the ulcer where you naturally expect it to be. This is a low power photograph of an ulcer. Frequently surgeons cut specimens from ulcers and send them in to the laboratory and expect the pathologist to tell them whether or not they are carcinoma; and many of the surgeons cut the sections out of the base of the ulcer; such specimens do not tell anything about the carcinoma unless it is an advanced carcinoma. What we want is a portion, the border, in order to see certain definite changes. What are the changes? In some chronic ulcers, we find practically normal epithelium in the tubules such as we have in this section. There may be a little distortion of the tubules. When you study the cells themselves with the high power, you find that they are differentiated, high columnar cells having the morphology of normal cells, such as we have in this picture.

Now, the borders of some gastric ulcers—you not only find distortion but you find these normal cells have been replaced by cells which are ovodial or spheroidal; they have less cytoplasm and larger nuclei. We have cells, the nuclei of which are larger in proportion to the amount of cytoplasm than the other section. A large nucleolus is present and at the same time all of these cells are inside of the tubule.

The next slide is a little higher power. The polarity of these cells is not regular as in the normal tubule. The long axes of the cell run in different directions. The nuclei vary in size and shape and do not resemble normal cells. This is not cancer, but the cells are morphologically identical with cancer.

The next slide is from a section through another gastric ulcer, showing you still further changes in the cells and their location. I will show you this under high power in a minute. We find not only changes that occurred in the last slide but we find the cells are intra-tubular. There is still greater variation in size. The cytoplasm is less in proportion to the amount of nucleus.

The next slide is a higher power section. We can see these cells very well with this light. Here is a large cell with the large nucleolus at this point. Morphologically, these cells and these tubules are identical with cells of carcinoma.

Now, in some gastric ulcers in the borders we have the changes which I have just mentioned plus the presence of the cells in the surrounding stroma, which I think the pathologist will say is the criterion for carcinoma.

Now, in the next slide we see cells which are distinctly carcinomatous cells. They have been taken from a small nodule in a lymph gland. No one would question their being carcinoma. If you compare these cells side by side, with the cells described in some of the other slides, you can see they are morphologically identical.

I now show you normal tubule similar to the one which we saw at the beginning to recall to you what normal gastric efistitial cells look like in normal tubules. The process of migrating hyperflosia keeps on until we get an enormous carcinoma. It is only large carcinomata which the clinician and the x-ray man can diagnose before operation. These are the specimens which we can diagnose grossly in the laboratory. But such specimens are becoming less frequent in our practice just like large ovarian cysts and large fibroids have become less frequent. Ten years from now such a specimen will be extremely rare because most of the cases that come to us will have small ulcers; the layman is becoming educated up to facts relative to ulcers and carcinoma and so is the physician.

In review I might say that if you will study

the borders of some chronic gastric ulcers you will find the tubules lined by normal columnar epithelium. If you study some specimens, grossly identical as far as you can tell, you will find the columnar cells are replaced by cells morphologically identical with carcinoma cells, and of course we have no right to call it carcinoma. In some tubules, we find these same cells present plus the invasion of the surrounding tissue and we have a right to call the condition carcinoma.

There should be no very lengthy discussion about the relation of ulcer and carcinoma. All we have to do is to study a large series of specimens, especially ulcer and early carcinoma and we can see the graduations from simple ulcers to the advanced carcinomatous ulcers.

The most important known clinical fact is based upon our knowledge of pathology. If I have a chronic gastric ulcer I have no method of proving that I have not also a carcinoma of the stomach. Whenever I get in this condition I am going to have the ulcer not excised but resected if posible. This is the practical conclusion to be made from the slides which I have shown you. Now that does not mean, if I, today, have my first signs of chronic gastric ulcer that I would immediately run to the surgeon and ask him to cut out my stomach. It does not mean that at all; I would hunt up a good physician. He would teach me how to live. I would not continue treatment with that medical man for a year or two if my symptoms continued. I would have a surgeon. I would not wait indefinitely, with my present knowledge of the relationship of chronic gastric ulcer and carcinoma. As far as the clinical diagnosis is concerned, the clinical diagnostician will be able to make a diagnosis in some cases. I do not dare to give the figure. They vary with the efficiency of the clinician and the condition of the stomach. He can diagnose a few. In many, however, he cannot make a differential diagnosis.

In our own experience in the laboratory, twenty-three per cent. of carcinoma of the stomach are diagnosed in the laboratory. They may have been inspected by the x-ray man and clinician. They are actually diagnosed in the laboratory and not by the clinician, the surgeon or the x-ray man.

X RAY EVIDENCE OF ULCER.

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In considering the roentgen diagnosis of peptic ulcers, we may first of all divide them into those which are prepyloric, and, second, those which are post-pyloric. The prepyloric ulcers should be subdivided into simple erosions which may later show fibrous thickening; second, penetrating ulcers, with destruction of the mucosa and muscular coats; third, perforating ulcers which destroy all the coats of the stomach and where the escape of the gastric contents is limited by the resulting productive inflammation; and fourth, the ulcer which causes a great deformity of a special type known as the hourglass deformity.

It is pleasant, in approaching this subject to remember that medical science is not indebted to the X-ray workers of the continent for the modern roentgen diagnosis of ulcer. The introduction of the opaque meal by Cannon and Williams, and the painstaking work of Cole, Carmen, George, Pfahler, Case, Crane and many others has elaborated this difficult means of diagnosis. American workers in X-ray diagnosis have every reason to be proud of their accomplishment and of the superiority of their work as compared with other nationalities.

An examination for peptic ulcer should be simply part of a general examination of the gastrointestinal tract; that is, if a patient is suspected to have either a prepyloric or a post-pyloric ulcer, the entire gastrointestinal tract should be carefully examined, inasmuch as nothing but dissatisfaction will be obtained from an examination limited to the suspected ulcer area. Painstaking and *not* perfunctory examination of the gall bladder area should precede the ingestion of the opaque meal in order to detect, if posible, plate evidence of gallstones or an enlarged gall bladder. The information is usually directly proportionate to the pains taken with the examination.

In considering the value of any method, it is best to realize its possibilities and also its shortcomings. The opaque meal enables us to visualize the stomach with the X-ray, giving us definite information as to the size, shape and position, while the study of the successive changes in outline enables us to judge of the activity of the gastric muscle. On the other hand, we must bear in mind that we are simply obtaining a silhouette outline, as it were, of the stomach, and the condition of the mucosa, except as it shows fairly definite pathology, cannot be comprehensively depicted by the X-ray.

The time-honored question as to the superiority of the fluoroscopic method over the plate method, and vice versa, is always brought up in discussing the question of gastric pathology. The concensus of opinion at the present time is that a sane combination of the two methods is far preferable to the fanatical adherence to one line of procedure.

In gross lesions, such as perforating ulcer, either method is all-sufficient. In small penetrating ulcers, the plate method will often show detail which is wanting on the screen. In the study of gastric peristalsis the fluoroscopic method is pre-eminently valuable.

It is, perhaps, advisable to preface any particular remarks with a few general statements. First, the more pronounced the gross pathology, the more easily will it be detected by the X-ray; second, the nearer the lesion is to the pylorus, the more quickly will it be recognized. In short, ulcers involving the lower pole of the stomach will be found more readily than ulcers which have their site above the mid portion of the stomach. This is explained by the fact that in watching the peristalsis of the stomach, if the ulcer is above the place where the peristalsis waves start, it naturally follows that study of the peristalsis will not be of value in the diagnosis.

It is necessary to remember, also, that in cases of even comparatively gross pathology unless the rays pass through the ulcer area parallel to the plane of the pathology, it will not be shown on the outline of the stomach, that is if the rays fall perpendicular to the plane of the ulcer area, it will not be shown. On this account, it behooves the examiner to study the patient from as many angles as possible, so that the ulcer area will coincide with the silhouetted outline of the stomach.

It is perhaps superfluous to insist that in the fluoroscopic examination of the gastrointestinal tract, the observer work under conditions as favorable as possible. The fluoroscopic room should be absolutely dark; at least fifteen minutes should be allowed for the proper accomodation of the eyes of the observer and the X-ray light should be of proper voltage and under suitable control. The examination should be conducted with the patient both in the erect and horizontal positions. We feel it is necessary to speak about some of these points inasmuch as many physicians who are now installing fluoroscopic outfits in their offices, will be dissatisfied with their results unless all of these precautions are observed.

Inasmuch as the short time allowed to us in this symposium does not permit us to enter at length into all the points of diagnosis in the recognition of ulcer, such a complete resume being naturally more appropriate to an audience composed of those especially interested in X-ray work, we will very briefly pass over the usual roentgen signs.

In hourglass contractures of the middle pole of the stomach, the deformity is so great that it is usually easily recognized. Persistent spastic incisures cause some slight difficulty, but the use of atropin pushed to the physiologic limit will usually determine the differential diagnosis. In all these cases, the Wassermann test should be made to determine whether the ulcer is specific or not. Luetic ulcerations of the stomach are particularly prone to appear on the greater curvature near the middle pole.

Perforating ulcers are usually recognizable during a careful fluoroscopic examination of the stomach, on account of the actual production of a shadow beyond the outline of the stomach. They are usually found on the lesser curvature and also on the posterior wall. The size of the protruding shadow varies considerably. In the larger ulcers, the outline may not be entirely caused by the opaque meal, there being introduced a bubble of gas, the so-called niche of Haudek. In these ulcers, an incisure may or may not be preset.

Penetrating ulcers of the stomach require more care for their detection, inasmuch as the deviation from the normal outline is less apparent. Usually an incisure is present which may or may not be persistent. The peristalsis should be accurately studied, and any lack of symmetry between the peristalsis waves seen on the greater curvature as compared with those seen on the lesser curvature will induce the observer to closer study of the suspected area. In these cases, the plate method is particularly useful, supplementing by its graphic outlines the fluoroscopic study of peristalsis.

The recognition of simple erosive ulcers of the stomach forms one of the most difficult problems for the roentgenologist. Frequently the only sign which manifests itself is the presence of striking peristalsis on the greater curvature and the absence of peristalsis over a limited area on the lesser curvature. Such an appearance, if persistent over a somewhat extended period of examination, is presumptive, although not conclusive, evidence of a superficial ulcer. If the ulcer is situated fairly near the pylorus, there will usually be present a marked residue. If further examination of the gastrointestinal tract fails to reveal probable evidence of gall bladder disease and shows that the appendiceal region presents no abnormal-

ities, it is further presumptive evidence of a gastric lesion.

Six hour gastric retention should always be confirmed by a second examination. The writer has seen cases of retention of psyolic origin and has considered the problem of the recognition of superficial ulcers of the lower pole of the stomach as one of the most difficult problems presented in radiographic diagnoses. In order to cover the ground as fully as possible, a number of letters were addressed to twenty roentgenologists in different sections of the country asking what percentage of these ulcers were thought to be recognizable by the ray, and also what were the cardinal points of diagnosis. Quite a variety of answers were received, but the concensus of opinion seemed to be that with with experienced observers, fully seventy-five per cent. of simple ulcers should be recognized. However, some of our co-workers with a large experience seem to feel that it was somewhat imposible to quote statistics accurately on this subject, for the reason that many of these cases, when so diagnosed by the ray, and in which the diagnosis was corroborated by the clinical findings, improved rapidly under treatment so that the internist in charge of the case was never quite positive as to what the actual lesion had been. Many suspected cases of ulcer, which give a stain with the string test, fail to show radiographic evidence. If these cases improve under treatment, it still remains a somewhat debatable question as to just what the exact pathology was. It is perhaps gratifying to remember that cases which possess pathology important enough to demand surgical intervention are usually easily recognizable by the ray.

In approaching the diagnosis of post-pyloric ulcers, the roentgenoligist takes fresh heart and applies himself to the task with much more confidence. The reason for this is that the area involved is small and intensive study confined to such a limited area yields more conclusive results. With ulcers of the duodenum, we find usually a marked hyperperistalsis, sometimes of the gigantic type, almost always bisecting, and one which at once leads to strong suspicion of duodenal ulcer. With the demonstration of an imperfectly filled bulb, even under manipulative procedure, the diagnosis becomes more certain. If to this then is added a serial plate demonstration, in which is found a constant deformity of the bulb the diagnosis becomes quite certain. Possibly one reason that the roentgenologists are more proficient in the detection of duodenal ulcer is on account of its greater frequency. Retention may or may not be present, depending whether the cicatrix has assumed obstructive importance. With an ulcer which produces a large retention at six hours, the lower pole of the stomach usually assumes a characteristic appearance, termed the prognathian type of pylorus. In operating on many of these cases, the surgeon will find that the ulcer will appear somewhat smaller than might be suspected from the type of deformity shown on the serial plates. This is due to the fact that the deformity of the pylorus is due, first of all, to the organic lesion, and second to the spasm which this lesion produces.

In the differential diagnosis of ulcer from other conditions of the gastrointestinal tract, a careful survey of results of the complete examination will be of assistance. For example, in hyperacidity caused by reflex irritation from the appendix, there will usually be demonstrable at the twenty-four and forty-eight hour examination, cecal retention which may or may not be accompanied by visualization of the appendix, but which will usually show marked tenderness on deep manipulation, and also fixation of the cecum on attempts at forcible displacement.

The differential diagnosis from gall bladder disease may be aided by the plate demonstration of an enlarged gall bladder, accompanied or not by the shadows of gallstones; also the rigidity of the pylorus and duodenum to manipulations. It is, however, essential to remember that the distinction between the fixation of the pylorus by adhesive bands, ulcer and gall bladder may not always be a simple matter, and we recall that in interrogating some of our surgical friends as to what they thought was the cause of bands of fibrous tissue found on abdominal section, learned that it was impossible to determine this from simple inspection. If the surgeon is unable to always determine the exact pathology when he has the specimen open for examination by ocular test and by the sense of touch, it is perhaps too much to ask the roentgenologist to furnish decisive information on simple silhouette shadows.

We feel, however, that a careful and complete X-ray examination in cases of suspected ulcer is the most decisive method of diagnosis at our disposal.

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ETIOLOGY AND DIAGNOSIS OF PEPTIC ULCER.*

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Probably nothing in the diseases of the gastro-intestinal tract has been the subject of so much theory, experimentation and discussion as the etiology of peptic ulcer.

There are some facts which stand out prominently and should always be kept in mind in this consideration. First: ulcers are almost exclusively found in the acid portion of the gastro-intestinal tract, viz: the stomach and first portion of the duodenum. Secondly: the majority of ulcers are associated with hyperchlorhydria and anemia. The old question of why does the stomach not digest itself is also involved in the ulcer question. Finally, what prevents the healing of an acute ulcer so that chronic ulceration results?

Trauma is undoubtedly a factor in causing some ulcers to form, but it is not common. Accidental and experimental wounds in the normal mucosa heal rapidly. Likewise the tearing away of pieces of mucous membrane by the stomach tube is rarely followed by ulcer. On the other hand, when there is interference with the nutrition of the part of the mucous membrane injured, then healing is interfered with and an ulcer results. Just what can produce the necessary associated conditions under which injuries to the mucosa do not heal has given rise to many theories. When hyperchlorhydria is present, injuries of the mucosa do not heal as rapidly as when the acid is reduced in amount. It has been clinically observed for a long time that alkalies favor the healing of ulcers.

It is generally agreed that a severe anemia, especially chlorosis, predisposes to peptic ulcer. Experimental anemia, induced by bleeding, has been associated with ulcer formation. Severe anemia and cachexia not only favor the production of an ulcer, but also retard its healing. Ulcers have been induced in animals in which lesions of the central nervous system have been produced. Thus, in section of the spinal cord and section of the vagi ulcers have been experimentally produced.

The interruption of the circulation to any part of the stomach by any cause whatsoever, will favor ulcer formation. Virchow, many years ago, suggested that the plugging of a nutrient artery by an embolus or by a thrombus would cause an infarct in the area deprived of circulation. The digestion of this area would result in a round ulcer.

Cohnheim injected lead chromate into the gastric artery and produced ulcers in the stomach. Vanum injected an emulsion of wax into the gastric artery and ulcers formed in the stomach.

Talma denuded areas in the mucosa and then ligated both orifices of the stomach. Because of increased tension of the gastric wall, these denuded areas did not heal and formed ulcers. More recently, Friedman observed by producing partial stenosis of the pylorus experimental acute ulcers did not heal and chronic peptic ulcers formed.

Turck, by feeding pure cultures of colon bacilli to dogs, produced acute ulcers in the stomach of animals and no healing occurred as long as the bacteria were fed. However, as soon as the animal was not fed with colon bacilli, cicatrization took place.

Letulle, twenty years ago, called attention to the possibility of infection causing peptic ulcers to form. He injected streptococci from a case of puerperal sepsis into guinea pigs and produced gastric ulcers. More recently, Rosenow has shown that streptococci may have a selective affinity for the mucosa of the stomach and duodenum. The ulcers he has produced in animals by injections of streptococci bear a close resemblance to the ulcers seen in man. They tend to become chronic, to perforate and to cause severe or fatal hemorrhage.

These streptococci he has isolated from various areas of focal infection, especially the tonsils and teeth. He concludes that peptic ulcer in man is primarily due to a localized hematogenous infection of the mucous membrane by streptococci.

The occurrence of duodenal ulcer in burns has given rise to much speculation. It is found in the deep infected burns and may be due to infected emboli which arise from such areas. Undoubtedly the toxaemia and anemia which rapidly take place in extensive burns also play a role.

Hamburger, Friedman, Ives and others have all submitted splendid experimental researches on the etiology of acute and chronic ulcers, but no one as yet has presented any final or conclusive evidence. From our knowledge to-day, we can only conclude that peptic ulcers may have a varying etiology and that the real cause of acute and particularly chronic ulcer is still to be revealed. Only when we shall know the exact cause of an acute ulcer and the factors that interfere with its healing, shall we have a definite rational therapy.

DIAGNOSIS.

The diagnosis of peptic ulcer is based upon clinical, laboratory and X-ray evidence. Inasmuch as Dr. Hickey is to present the X-ray findings of ulcer, I will omit reference to this phase of the question.

The *peptic ulcer* of the stomach occurs more commonly in women, in young adult life. Some cases are latent in their picture, while many present symptoms of hyperchlorhydria with pain from time to time. The onset is insidious, at first with a feeling of fullness and distress, and then later pain, nausea, and vomiting.

Pain is the most important of the symptoms and the time of its appearance helps to distinguish gastric from duodenal ulcer. Generally it appears a few minutes after eating, but may be delayed to an hour. It is made worse by food, especially coarse food, and increased by epigastric pressure. If vomiting occurs pain is relieved. The pain is of a burning or gnawing character and not cramp like. When the pain is continuous, then some complication is present and we no longer have a simple gastric ulcer. Sometimes the pain is referred around to the back and there is also tenderness in the region of the tenth dorsal vertebra, especially to the left of the spine. Boas attaches a diagnostic importance to this tenderness and has devised an algesimeter to measure it. A localized epigastric tenderness is usually present.

In all of the cases hemorrhage occurs, sooner or later, and it is a complication. In most of the cases, the blood can only be detected by chemical or microscopical methods in the stomach contents or the stools. In many, however, it is visible hemorrhage. According to the amount of blood lost, the effect on the patient and the appearance of the patient will vary, and the blood if large in amount will be bright in color, and dark if small in amount, especially if it has remained for any length of time in the gastro-intestinal tract. *Usually* death does not occur from hemorrhage from a gastric ulcer.

Vomiting does not occur in *all* gastric ulcers but it is common and when it does occur, it is usually at the height of digestion, i.e. two or three hours after eating.

The examination of the stomach contents in 95 per cent. of the uncomplicated cases show a hyperchlorhydria in which the free acid and the total acid may be two or three times the normal. Occult blood is usually present and microscopic blood is common..

Duodenal ulcer is more common in males from 20 to 40. Patients at first complain of a general discomfort and sense of weight. Later they complain of pain, two or three hours after eating. When liquids are taken, pain comes earlier. The pain is relieved by taking food. Moynihan describes the pain as a "hunger pain" and says it often wakes the patient in the early morning. This is relieved by taking food or alkalie and the patient goes back to sleep.

There is at times tenderness in the epigastrium a little to the right over an area two or three inches in diameter. The upper part of the right rectus muscle may show some rigidity.

Many cases exhibit a periodicity to attacks and complete abeyance between attacks. These may follow exposure to cold or wet or indiscretion in the diet or mental shock or worry. Again the attack may be cut short by rest or by a vacation. *Chronicity* is a common story, and cases may extend over as many as forty years with periods of intermission.

When a stage of obstruction due to contraction of an ulcer scar or adhesions occurs, then we get a characteristic picture of motor insufficiency. Peristaltic waves are visible on the external surface from left to right and inflation shows the presence of the large stomach.

Hemorrhage is a complication, and is a *late symptom* for it usually means erosion of a deep vessel. The ulcer should be recognized before this stage. Occult blood is present in every case and will always be found if sought for repeatedly.

The *stomach test* in *recent* duodenal ulcer usually shows a hyperchlorhydria just as in gastric ulcer. In the *chronic cases* however, the titrations may show subacidity. The motor power is very good if no mechanical obstruction is present and the stomach may even empty too quickly.

In the differential diagnosis of gastric from duodenal ulcer the time of the pain is very important. If it appears early within an hour it speaks for a gastric ulcer, while after two hours means a duodenal ulcer.

The recurrence in seasons occurs in duodenal cases.

Vomiting is more common in gastric and rare in uncomplicated duodenal ulcer.

Ulcer must be differentiated from all other lesions of the right upper quadrant. The differential diagnosis of lesions of the right upper quadrant of the abdomen in the typical cases is very easy. In the atypical cases, especially those associated with complications, the diagnosis is not only extremely difficult but at times impossible. Before giving the differential points I shall, for the sake of clearness, give the impor-

tant signs and symptoms of these lesions, especially those which are of importance in the differential diagnosis.

Disease of the gall-bladder in typical cases is easy of recognition, but in atypical cases the symptoms are anomalous and difficulties of diagnosis arise which are almost insurmountable.

The presence of jaundice with a gall-stone attack makes the diagnosis easy. However, many patients never have jaundice. Likewise, the finding of gall-stones in the stools determines the diagnosis—but in most cases no stones are passed. Gall-stones are more common in women, especially middle aged. A history of a previous attack of typhoid is important.

The *pain* in gall-stone colic is excruciating—much more so than ulcer, unless the ulcer is in the perforating stage. The pain occurs independently of eating, is not relieved by food, and may even be made worse by it. The pain is felt in the right upper abdominal region and is often referred to the right shoulder blade. It appears within an hour of food taking, *especially after greasy foods.*

Chilliness or even a chill may accompany a biliary colic and fever may be present. Vomiting occurs soon after the initial pain and often with sweating and depression. Nausea and vomiting occur in gall-stones without colic, leading the patient to believe that the trouble is with the stomach.

Tenderness over the gall-bladder is common and one may palpate tenderness of the liver in the region of the gall-bladder or find a Riedel lobe that is tender.

The *stomach-test* shows a normal stomach picture with normal motor power unless there are complications present such as common-duct stone or adhesions causing mechanical obstruction. Often a subacidity is found and rarely a hyperchlorhydria.

Perforation of a gastric or duodenal ulcer will produce a similar picture to a severe gall-stone colic.

In perforation there is an acute, violent, tearing, constant pain, followed by collapse, rigidity, tympanites and loss of liver dullness. A leucocytosis occurs quickly and soon the picture of generalized peritonitis begins, or if subacute perforation has occurred a circumscribed abscess and extensive adhesions to other organs may result.

Cholecystitis, with or without gall-stones, may simulate ulcer. A pyogenic infection of the biliary passages is usually associated with chills and fever and a leucocytosis. Besides localized tenderness over the gall-bladder area, there are frequently the signs of Cholangitis. The absence of the laboratory and clinical findings of the other lesions mentioned is a great help in the differential diagnosis. With adhesions between the gall-bladder and pylorus, motor insufficiency of the stomach may be present. In the interval between attacks of Cholecystitis, tenderness can often be elicited over the gall-bladder, especially on deep palpation.

Cancer of the stomach, especially of the pylorus, may cause difficulty, for it requently occurs on an ulcer basis. The cases with metastatic growths are easy of diagnosis; but before metastatsis occurs one can still make the diagnosis by the history, by the palpation of a tumor mass, cachexia and anemia and the laboratory findings for carcinoma, especially the absence of free hydrochloric acid and the presence of the Oppler Boas bacilli along with the lactic acid. Numerous biologic tests have recently been developed for the early diagnosis of carcinoma, such as the Salomon test for albumen in the fasting stomach contents, the Tryptophan test, the Abderhalden test, and the Complement Fixation test of V. Dungren. But although all of these are helpful, none is infallible.

The attacks of gastric crises in locomotor ataxia have often been misleading in the diagnosis of these lesions. Many cases, I am sorry to say, have been operated upon with a mistaken diagnosis of gall-stones or ulcer. If a careful physical examination is made, such mistakes can be avoided.

The *colic* which occurs in lead poisoning may also be confusing, but here again a careful history and physical examination will avoid mistakes. The referred pain in *appendicitis* or the pain of an abnormally high appendix may give the picture of pain in the upper abdomen with nausea and vomiting. These cases are all the more confusing because an appendicitis is not infrequently associated with a gall-bladder disease or a duodenal ulcer. *The Dietl crisis* of a floating kidney may give a confusing abdominal picture, but here again the history of an improvement of the clinical condition following it, as well as a careful abdominal examination, and, if necessary, a catheterization of the ureters, will make the diagnosis certain. The sudden pain associated with *renal calculus, renal new growth,* or a *renal infection,* may give a confusing abdominal picture, but here again, the careful physical examination and a study of the urine with or without ureteral

catheterization, will help to clear up the diagnosis. Permit me to emphasize to the uninitiated that an examination by all methods, including the X-ray, must cover both kidneys, both ureters and bladder, if mistakes are to be avoided, no matter which side is seemingly the cause of symptoms. *The rupture of an extra-uterine pregnancy* or an *ovarian cyst,* may also give a confusing picture, but this can be eliminated by a pelvic examination. The *colic associated with the passage of some indigestible matter through the bowel* or the acute gastro-interitis following an indiscretion in diet must also be considered.

Diseases of the *pancreas* and *tumors* of the pancreas are very confusing in the diagnosis of lesions of this region. The diagnosis must largely be made by exclusion. One should never forget the picture of acute Pancreatitis with a severe colic, nausea, vomiting and collapse, which resembles very closely the picture of perforating ulcer or the rupture of the gall-bladder or the appendix. A localization of the tenderness to the epigastrium, along with a circumscribed distension in this region, and particularly the picture of shock and collapse out of proportion to the other findings should help make one alert for acute pancreatic disease.

I have not attempted to consider infrequent or rare lesions which may cause symptoms or signs in the region considered, for this would necessitate a paper of unusual length. A diaphragmatic pleurisy, pneumonia of the lower right lobe, subdiaphragmatic abscess, splenic anemia and syphilis of the liver may give rise to findings in the upper abdominal quadrant. The definite physical, laboratory and X-ray findings of these lesions will help to eliminate them in the differential diagnosis. The last named, syphilis of the liver, deserves special mention, for the clinical picture is so variable and the history often impossible to determine. The picture of gall-stones may be simulated very closely by syphilis of the liver and it is well, whenever the slightest doubt that liver pathology is present, to have a Wasserman test made.

ACUTE FIBRINOUS BRONCHITIS.

Report of a Case.

N. R. LAWHEAD, M. D.
DETROIT, MICHIGAN.

The report of a case of Acute Fibrinous Bronchitis by Dr. W. H. Marshall, Flint, Michigan in the December issue of the *Journal* of the *Michigan State Medical Society* prompts me to report an almost identical case.

Arthur S.—Aged 6—School boy. Seen first November 17, 1920.

Family History—Negative.

Personal History—Whooping cough, winter 1917-1918, lasting three months, Measles, April 1919.

Present Illness—On November 15th complained of slight headache, sore throat and a slight pain in the right chest. When seen November 17th the face was flushed, breathing somewhat difficult, very restless, coughing at intervals, which was very dry and unproductive. Some difficulty in swallowing due perhaps to the condition of the throat.

Examination at this time showed temperature 102, Pulse 136, Respiration 28, tongue heavily coated, both tonsils were very large reaching almost to the uvula on either side and very red. The lungs showed a small area of dullness in the right lung posteriorly over which there was bronchial breathing. Anteriorly a few sibilant rales were heard over both lungs.

On the 18th some cynosis was noticed at times about the lips, breathing more difficult. Temperature, 102, Pulse 140, Respiration 38. Diffuse sibilant rales heard over both lungs. During the night and next morning the child had several attacks of dysponea and cynosis, usually terminated by emesis of considerable mucous. Emetic doses of Ipecac was ordered for these attacks and later in the day a cast was coughed up. Unfortunately no examination could be made of the cast as the mother forgot to save it; however from her description it was branched, about 20 cm in length, greyish in color and very tough.

After expulsion of the cast the boy was immediately relieved of cynosis and dysponea. Examination made a few hours later showed diffuse sibilant rales over both lungs anteriorly. Posteriorly on the right side there was an area of dullness extending from the 4th to the 8th rib over which there was bronchial breathing and increased voice sounds, above this area sibilant rales wer heard. The left lung showed practically the same signs with the exception that dullness extended higher —3rd to 8th rib, reaching to the axilla on both sides.

The temperature remained at 102 for about 24 hours after which it dropped rapidly to normal and did not again come up. The boy continued to expectorate freely for a few days. Lungs showed no abnormal findings four days later. Since this time the boy has remained well and has returned to school.

Repeated cultures of both nose and throat both before and after expulsion of the cast were negative for Diphtheria Bacillus.

9310 Kercheval Ave.

The Journal
OF THE
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ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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January

Editorials

THE NEW YEAR.

In meditating upon the trend of thought that we contemplated to include in our New Years greeting the message that seemed most appropriate manifested itself in the following tale that was told to us while in service by one of the eye witnesses. In the Argonne Drive a certain Lieutenant was leading his platoon, under heavy fire, toward a designated objective. Just as half of the distance had been covered he fell mortally wounded. His non-com went to his aid and bending over him this dying officer uttered his last command in these words: *"Sergeant, the command is forward."*

Certain objectives are being sought by our profession today. Objectives which, when attained, will bequeath a heritage to all of better and greater benefits. To secure them, to realize them we as individuals and as organizations must respond to and obey the command of Forward!

Forward to a fuller realization of our responsibilities. Forward to a consummation that will enable us to convey to those who are charged with the duty of safe guarding the health of our people that as a profession we merit just consideration as well as freedom from limiting legislation. Forward, in platoon fronts, to record our protests so effectively as to accomplish the defeat of the ends sought by those who would shackle both the people and the profession with compulsory health legislation. Forward to the objectives that will increase our individual efficiency and capability.

As an organization may we make that progress during this new year that will witness a contribution by each member of more than his membership dues. May we by definite act and endeavor cause a forward advance from our present position as an organization and exert ourselves to assume an activity that will accomplish definite constructive work.

It is our hope that this year will witness such forward movements for then it will indeed be a happy and prosperous one. May we be privileged at its close to record that we have heard and obeyed the command—Forward. Such is the thought we desire to include in our greetings to our members for a Happy and Prosperous New Year.

ANNUAL MEETING OF THE COUNCIL.

The annual meeting of the Council will be held in Detroit, at the Wayne County Medical Society Building at 8:00 p. m. and 9.00 a. m. on January 12 and 13, 1921. The purpose of the meeting is for the transaction of the regular order of business and such other business as may properly come before this body.

W. J. Kay, Chairman.
F. C. Warnshuis, Seretary.

DUES.

The 1921 dues are now payable and their prompt payment to your County Secretary is urged. Please do not invite suspension by neglecting to promptly send in your remittance this month.

BLOOD CHEMISTRY AS AN AID IN DIAGNOSIS AND PROGNOSIS.

Recent developments in the technic of blood chemistry have made this important field of great value to the physician. It can be stated with certainty that by employing these methods far more important information can be obtained than by relying on a complete urinalysis alone. In fact, blood chemical analyses far surpass in value the best known urinary analyses, both qualitative and quantitative.

However, the one should not be replaced by the other. Both should be employed as blood chemistry demonstrates the retained products of metabolism, in other words, indicates what the kidneys *are* and *are not* doing whereas the routine urinalysis shows only what the kidneys *are* doing.

Innumerable estimations of the main blood constituents, which undergo quantitative changes in disease, have shown that these do not vary in amount in normal individuals. The principal ones concerned are uric acid, urea, creatinine and glucose. The first three are of greatest importance in the study of blood changes as a result of degenerative conditions of the kidneys. In early interstitial nephritis there is the beginning of a retention of but one ingredient, namely, uric acid. Later on as the disease progresses urea begins to accumulate and in the more advanced stages the creatinine content increases. These three substances increase in the order named due to the fact that uric acid is the most difficult for the kidneys to eliminate, followed by urea and finally creatinine, which is the easiest. The greatest retention occurs in chronic interstitial nephritis, especially when the uremic stage is at hand. It is at this point that blood chemistry is of value in prognosis of nephritis. The normal creatinine content of blood is 1-2 mgm. per 100 c. c. It has been shown that when the creatinine content of blood reaches 5 mgm. or more per 100 c. c. the prognosis is grave and that such cases terminate fatally.

A comparative blood and urine chemical analysis is the only means of differentiating between diabetes mellitus and renal diabetes. Hyperglycemia may exist without glucosuria and vice-versa. The appearance of sugar in the urine in cases of diabetes mellitus is merely an indication that the threshold point has been passed. A patient may be a true diabetic and his kidneys relatively impermeable to sugar up to a very high point. An analysis of the urine alone would cause the elimination of a diagnosis of diabetes mellitus. The fact that a patient with diabetes mellitus is rid of glucosuria does not indicate that he is in a state of carbohydrate tolerance. If possible his blood sugar should be reduced to the normal of 0.8 per cent. Blood chemical methods alone will show when this condition has been reached.

Blood chemical studies are progressing rapidly and it behooves physiicans to acquaint themselves with the latest advances and to avail themselves of those methods which have proved to be of inestimable value in determining bodily metabolism in health and disease.

THE UNIVERSITY INVITES A CONFERENCE.

To the Editor:

Following our conversation in Chicago on November 11th, I have taken up with the University authorities, the question then discussed of a conference between the staff of the University Hospital and the medical profession. I am glad to be able to advise you that such a conference has been arranged and will be held on January 13th at 2 p. m. at the Michigan Union, Ann Arbor. Invitations are going out to the officers of the State Medical Association, to send delegates, and to other physicians in the State. President Burton will preside.

As I stated to you in Chicago I entirely believe that this method should be productive of good results. On the other hand, your editorial in the current number of the Journal does not seem to me calculated to produce harmony but on the contrary by circulating unfounded rumor and the now thread-bare story which has been repeatedly denied is calculated to stir up bad feeling and disharmony between the parties concerned. My knowledge of the attitude of the clinical men here from the close association during the past year, has convinced me that they are using every endeavor to promote the betterment of medical education, the care of patients, and the interests of the medical profession. If it is the honest desire of the Journal to bring about this same result, I have no doubt that it can be achieved.

Yours very truly,

Hugh Cabot.

We sincerely believe that this conference affords an ideal opportunity for the profession to obtain a true insight into the constructive plans that are being inaugurated by the medical department of our university. It offers a desired opportunity for the members of the medical faculty to meet on a common ground and discuss their commmon problems, interests and future welfare. It tenders a timely occasion for a mutual understanding and the presenting of a program of constructive co-operative activity that will be of benefit to all. It should beget a clearer understanding of each other's activity.

We have always felt that our problems are common ones, that a close relationship should exist and that the profession and the medical department should harmonize their endeavors and conserve each others welfare. Too long has there existed a spirit of indifference for each other. Rumors and charges have floated back and forth with no apparent basic reason other than to continue to foster a spirit of dis-

sension. Such a relationship is indeed undesirable and hence if a full understanding can be obtained we indeed welcome it.

Consequently we urge and sincerely hope that you, who feel you have a grievance, you who feel you have been injured, that you come to this conference and in an open sincere discussion clear up the situation and then join in a co-operative movement for better things.

We invite a goodly response, statewide, to this invitation, and bespeak your constructive criticism and advice. We confidently expect that this conference will result in putting a quietus upon unfounded, unjustified rumors and mis-statements. Plan to be in Ann Arbor and if you write to Dr. Parnall care of the University Hospital he will gladly arrange for your room at the Michigan Union. If you have a grievance and do not attend this conference you have no right to continue to utter harping criticism. Now is your opportunity to get together.

THE USE OF MORPHINE.

A number of years ago when the use and method of exhibiting therapeutic remedies was considered worthy of presentation in a paper at a medical meeting and also found welcome in the columns of medical journals it was not uncommon to read a survey of doctors' opinions as to their dependency upon certain drugs. It was usual to see an expression by capable men that of all the drugs in the pharmacopea if they were limited to a selection of three drugs they would select Opium, Calomel and Nux vomica. That was the most frequently selected combination. Of course there were some who preferred magnesium sulphate, aconite, pilocarpine, potassium iodide, digitalis, but all were agreed upon the need of having opium or its alkaloids. Much has been written and said about opium, drug addicts, the Harrison law and how the profession is responsible for the habitue's use of morphine. The Harrison law was enacted because its sponsors hoped it would limit opium traffic, retard and eventually do away with the opium habit. At least that is what they claimed, but, events and conditions point to the failure of accomplishing such a purpose. On the contrary, it is fairly apparent that the number of addicts is increasing and all that the Harrison act has done is to increase revenue returns by the three dollars per physician license fee. Neither can the charge be made that physicians are prescribing the drug in greater quantities and that the profession is thus responsible for the increased numbers of opium habitues.

An interesting article appeared in the December 11th, 1920 issue of the *Journal of the A. M. A.* in which Dr. Blair discusses the usage of narcotic drugs in hospital service and private practice. His article is based upon Pennsylvania statistics. The doctor reports that in one year the hospitals of Philadelphia used an average of 1.6 grains of opium and its alkaloids per patient. Those of Pittsburgh, 2.9 grains, and of several other hospitals of the state 3.1 grains. the average being in the state 3 grains per patient. In this connection it must be remembered that many of the patients were surgical, emergency and industrial, hence presenting definite therapeutic indications for the exhibition of the drug.

In private practice there is an average of one physician to every 700 people in Pennsylvania. The records show that on an average the private physician employs about four grains per patient per year in 60 per cent. of the practice and the entire private and hospital practice, including chronics, insane and addicts under treatment from the records of medical prescribing equals 15 grains of opium for every person in the state. This includes that used by dentists, veterinarians and patent medicines. In 1919, the Secretary of the Treasury reported that the annual consumption of opium showed on an estimate that counted every man, woman and child—sick and well—in the Union, an annual per capita consumption of 36 grains of opium with an additional unknown supply of smuggled-in opium to be added thereto. Consequently the physicians are prescribing not quite one-half of the opium consumed.

These are the figures for Pennsylvania and they may be taken, we believe, as a representative average of the country. However, we would like to see a similar analysis made of several other states to determine if the same relative conditions exist. In the article there is revealed that 250 physicians exceeded the 15 grains per capita average but it is pointed out that they were men who catered to the addict trade and carried them along on the discredited ambulatory reduction treatment. In all there were only some 600 who exceeded the 15 grains per capita average. Were these men to meet up to the professional average and intelligent use of morphine the per capita amount prescribed by doctors would drop to ten grains.

On the whole the article furnishes much for reflection and indicates as we asserted. in the beginning that opium habitues are not wholly the result of the profession's therapeutic use of the drugs.

COMPULSORY HEALTH INSURANCE.

The propagandists who seek to force this class of legislation upon the profession and public are endeavoring to allay professional opposition by stating that by being represented upon administrative boards we will be able to dictate the returns for the services we render. This is the bone they are throwing to us and the "pap" they are trying to ladle out in an effort to suppress our opposition. Please don't be subdued by such meaningless promises.

When the Harrison act was passed and we were taxed one dollar to administer it, we paid. When it was raised to three dollars—we paid. When compensation acts were enacted and medical-surgical services prescribed and defined were we consulted? No! When the Volsted act limiting the prescribing of liquor and restricting its medical use were we consulted? No. The proponents will reply, we are not talking about those laws. No, but the profession is not forgetting about the treatment and consideration received by legal enactments.

Nor are we unmindful of the recompense we now receive from the state administered institutions. We refer to the following pay roll of the Chicago Municipal Contagious Diseases Hospital; as but a sample of what we may expect:

Assistant Medical Superintendent, $150 per month (board and lodging).

House Physician $120 per month (B. and L).

Ambulance Surgeon $120 per month (one meal).

Electrician $225 per month.

Ambulance Driver $150 per month (one meal).

The ambulance driver, who requires but a couple of months of training receives $30 more per month than the ambulance surgeon who was compelled to take not less than six years of college training, not counting high school. Oh, yes, we will dictate our fees and be given what we ask. The proponents know full well the show we stand when bureaucrats and politicians are on these boards to designate what we shall do and what we shall be paid.

We have yet to be shown why this plan is being proposed and pressed. We have yet to be shown why these propagandists are so insistent. We have yet to be shown wherein and how the profession has failed to care for all who need medical services. We know of no place where professional and hospital services are refused the sick and afflicted.

We would like to see the proponents of this plan list the plumbers into panels and cause them to respond night or day at 25 cents per hour pay. No, they wouldn't dare to attempt it for the plumbers are organized while we as a profession are organized in name only. Goodness knows there are more shops, factories, business houses and homes that need sanitary plumbing, more so almost than there are people who are in sore need of medical and hospital services that they cannot obtain. Why look at us.

So again we urge our members to bestir themselves, become more than members. We want aggressive action and concerted effort to defeat this pernicious measure.

Editorial Comments

Somewhere, we cannot just recall, the statement was made or printed that we began life studying to learn and end life learning how to study. It naturally follows that he who fails to attend his county society meeting is failing to learn how to study the problems of his daily work. Hence, that individual is bound to undergo a stagnating process, and become more and more inefficient. What is required is more attending and participating members.

Has any society any particular problems that remain unsolved. If so, why not hold a special meeting for their discussion. Call in the Councillor of your District to deliberate with you.

If transportation companies, gas and electric companies and street railways are public utilities and so amendable to legislative regulations it occurs to us that the Standard Oil Company may also be listed in the class of public utilities and made amendable to regulation. With the number of automobiles in use to-day for business and commercial purposes gasoline is a commodity that is an actual public necessity and utility. With the published reports of millions of profit and increasingly large earnings there does not seem to be any other conclusion but that the present price of gasoline is exorbitant and the profits reported evidence of unjustified profiteering. Oh, yes, we realize that we can not drop a bomb in the Standard Oil Company's midst by this Editorial Comment, still we may be at least a grain of powder in the bomb that can be prepared if a sentiment is recorded.

County Secretaries are requested to forward for publication a report of each meeting of their society. Some of our counties have not reported a single meeting during the past year. Why? Will you send them this year?

The Journal solicits original articles covering or incorporating original investigations or practical observations.

A prompt payment of your dues to your county society is especially urged at this time. Please

do not make it necessary for your county secretary to send you a statement. Send in your check this week.

Watch your local papers for legislative activity and when you note that undesired bills are introduced see and also write your representatives and Senators and thus enlist their influence to defeat such proposed enactments.

We are absolutely convinced that those who are engaged in devoting their entire time to the executive work in connection with the various offices centered in the headquarters building of the American Medical Association are working wholly and solely for the best interests of the profession. We know that they have your welfare at heart and are endeavoring to cause you to realize upon the results of their activities. They merit our confidence and support. As officers they are faithful to the trust imposed.

When the lack of clinical material causes desirable and able men to refuse offers of faculty appointment is it not about time that our medical schools should be re-located so as to overcome such objections?

In our December issue we did not purposely omit our News Notes. The fact was we had no copy. Our newspaper clippings furnished nothing and likewise our correspondents. We urge that each member assume the task of forwarding news items.

The laborer or any employer who loses his life in the performance of his duty is assured that his estate will be compensated for that fatality. The doctor, practitioner or surgeon, who, in the practice of his calling, loses his life, makes the supreme sacrifice without other reward than a credit for having been faithful to his calling. Such sacrifice as a rule is passed by with but little note. Every month witnesses the death of several of our members in the United States who thus contribute their lives in the performance of their duty. And even we, their fellow members, take but pasing note of their deaths. It is only when the sacrifice occurs close to us and the one makes this sacrifice is personally known do we pause and give more than passing heed.

In the death last month of Dr. Enos C. Kinsman of Saginaw there was again recorded a supreme sacrifice on account of duty well performed and a death directly attributable to the work of his calling. A needle prick sustained during an operation upon a patient with septicemia resulted in the development of a virulent streptococcic infection of the thumb and entire arm with extension to the heart and kidneys and a fatal termination. His death marked the close of the life of a capable sympathetic and progressive surgeon. One who was respected and loved; a man whose memory we will cherish.

The answer has been given in the past that the reason the State Board of Registration in Medicine did not assume a more aggressive attitude toward prosecuting unlicensed doctors and quacks was because they had no funds wherewith to secure the necessary evidence. Such reason can no longer be advanced—in fact, need not have been advanced during the past two years. The State Constabulary officers and men are available and willing to dig up the necessary evidence. We were talking to a captain of the State Constabulary the other day and asked him whether his men could be utilized for that purpose. His reply was that if we would but name the suspected individuals his men would secure the evidence. Here, then, is a splendid opportunity for the Board to do some professional house cleaning.

On January first the law became effective changing all the numbers of Detroit business places and homes and many street names. This has necessitated making over a thousand changes in our mailing list. Errors may have been made in making these changes and if they have we respectfully ask that our Detroit members notify us and supply us with the correct addresses.

Yes, January 1st, means payment of dues. Please don't neglect doing so.

The February issue will contain a full report of the annual meeting of the Council.

In the November issue of the Bulletin of the Detroit Department of Health there appears an article dealing with this subject as seen in the school children in Detroit.

At a cost of over one and one-half million dollars Detroit is building a municipal tuberculosis sanitarium at Northville. This will provide accommodations for 300 patients.

There are present in the City of Detroit from 1,100 to 3,500 school children with seriously impaired nutrition. This group is a potential supply house for the tuberculosis of the future.

Can we build accommodations for our tuberculous as rapidly as they are being produced?

Would it not be wiser to begin at the other end and try to eliminate the conditions that make for tuberculosis, to prevent as well as to cure?

A most encouraging start has been made. There are in the public schools of Detroit, open-air classes for the physically subnormal child. There is the summer camp of the Health Department to bring many children back to normal weight.

The open air classes accommodate 250 children. The summer camp looked after approximately 150. Private women's clubs and organizations are giving supplementary feeding to 4,000 children.

There are a number of causes of under-nourishment. With some it is lack of food. In Detroit there are children coming to school without breakfast, sitting through the morning session to imbibe knowledge on an empty stomach.

With others it is an improper choice of food. Coffee and bread served as the breakfast of many of the school children. Coffee is a prominent item at other meals. Soup, meat and fried

foods are popular. The correct choice of food will lead to better nourishment at less cost.

Tonsils, adenoids and decayed teeth retard some children and no amount of food will alleviate the condition until these defects are remedied.

Adequate and properly selected food can not overcome the handicap of insufficient sleep, sleeping in warm, closed rooms, over-fatigue and other violations of the rules of personal hygiene.

Fifty thousand children are slipping from the pathway of good health in Detroit. Many will catch themselves before going further. There are several thousand that have already slipped and assistance is needed to replace them on their feet.

The matter requires the intelligent and well directed efforts of the forces of the City of Detroit.

The proper selection of foods:

1. Milk, eggs and green leafy vegetables are protective foods and liberal use should be made of them.
2. Excessive use of meats should be avoided and substituted with cheese, cottage cheese, fish, eggs, peas, beans and lentils.
3. There is no substitute for butter especially for children.
4. Fruits and vegetables are body regulators. Their liberal use is advised.
5. Avoid the excessive use of sweets. They destroy the appetite for natural foods.
6. Children should be restrained from incessant eating between meals.
7. The diet of the child should be generous.
8. The diet of the adult should be plentiful.

(Bulletin of Detroit Dept. of Health, Nov., 1920, C. H. Chelson).

Deaths

Doctor Enos C. Kinsman was born in Ontario in 1864 and died in Saginaw December 5, 1920. He received his medical education and medical degree from the Chicago Homeopathic Medical School in 1895. He was appointed a member of the Michigan State Board of Registration in Medicine in 1914 and was reappointed in 1915 for the term ending October 1919. He was a member of the Saginaw Board of Health and local surgeon to the Pere Marquette Railroad and the Michigan Central Railroad.

Doctor W. H. Baldwin, Coldwater, Michigan, died November 29th of diphtheria with which he had been ill for a very short time. Doctor Baldwin was 54 years of age and was a graduate of the Detroit College of Medicine and Surgery of the class of 1893. The Doctor had practiced in Coldwater for about twelve years.

The deaths of Doctor G. C. Brock of Smiths Creek and Doctor Frank G. Legg, of Coldwater, not members of the Society, are reported.

State News Notes

Dr. T. A. Felch, who recently retired from the active practice of his profession, was highly honored at Evergreen Inn, Thursday evening, by his fellow members of the Marquette-Alger County Medical Society.

Following a turkey feast, Dr. G. G. Barnett, of this city, who was associated in business with Dr. Felch for a long period of years, took charge of the gathering as toastmaster and called upon many of the members of the society for short talks. The speakers were Dr. H. W. Sheldon, of Negaunee; Dr. L. W. Howe, Dr. Harkin and Dr. H. J. Hornbogen, of Marquette; Dr. V. H. Vandeventer, Dr. H. S. Smith and Dr. Barnett, and Dr. Felch, of Ishpeming. Dr. Smith, on behalf of the members of the organization, presented the honored guest with a handsome pair of platinum cuff links.

Several of the members of the society have been engaged in the practice of medicine in Marquette county for a long time, Dr. Felch having located here in 1875, while Dr. Sheldon and Dr. Barnett were here in the early days. Dr. Felch came to Ishpeming from Ann Arbor, where he spent his boyhood days and where he received his education. He was a member of the staff of the first hospital founded here, and later was a part owner with Dr. V. H. Vandeventer in the Ishpeming hospital. For over forty years he practiced his profession, and he is justly entitled to a rest. Although he has retired, we sincerely trust that he will continue to make Ishpeming his home.

On December 7th the Michigan Hospital Association joined the American Hospital Association following an address by Dr. Andrew R. Warner, executive secretary of the national association. The association recommended legislation providing for higher standard of qualification for trained nurses, the establishment of another class of nurses to be called attendants to assist trained nurses, the annual registration of both classes and changes in the length of appointments of members of the State Board of Health.

Through the efforts of the members of the Michigan Department of Health, the Lansing Section of the Society of American Bacteriologists was organized late in October. This Section number 50 charter members. The majority of these are either associated with the Michigan Agricultural College or with the various state departments. The local physicians are eligible to membership if they so desire.

At a special meeting of the Michigan State Board of Registration in Medicine, held in Detroit on December 15th, the licenses of Doctors E. B. Gibson and George E. Brown of Detroit were revoked. Both of these physicians were convicted in the Recorders' Court, Detroit, for violating Act 272 of the Public Acts of the State

of Michigan 1919. (Failure to report Venereal Disease).

A special meeting of the Michigan State Board of Registration in Medicine has been called for December 15th, in Detroit to consider the cancellation of physicians' licenses who have been convicted of violations of Act 272 of the Public Acts of 1919 involving the failure to report venereal diseases.

Dr. Goldwater, Superintendent of Mount Sinai Hospital, New York, has been retained as Consultant and Robinson and Campau of Grand Rapids have been engaged to prepare the plans for the New Butterworth Hospital, Grand Rapids.

Tentative plans are being discussed for a 10 story office building for physicians and dentists in Grand Rapids. The building to be built and administered under a co-operative plan. It is proposed to include an auditorium, cafe and library.

Doctor and Mrs. Arthur D. Holmes of Detroit gave the debutante ball at the Statler Hotel November 19th, honoring their youngest daughter Miss Agnes May Holmes. The ball was preceded by a number of dinner parties. Doctor and Mrs. B. R. Shurley were the hosts at one of these. A number of the Detroit medical profession and their wives were present at this ball.

Doctor J. B. Kennedy, Chairman of the Legislative Committee of the Wayne County Medical Society, attended the December meeting of the Alpena County Medical Society and addressed the members upon the subject of State Medicine. As a result the society unanimously passed a resolution condemning the principles involved in State Medicine.

Doctor J. B. Kennedy, Chairman of the Legislative Committee of the Wayne County Medical Society, talked in a most interesting and instructive manner to the members of the Michigan State Board of Registration in Medicine at their special meeting on "State Medicine."

On November 29th the Entertainment Committee of the Wayne County Medical Society, headed by its genial chairman, Doctor John Dodds, pulled off a howling success in the form of a "feather party." There was a record breaking attendance, the hall was crowded and everybody appeared to have a good time.

The Michigan Department of Health covers every health field in Michigan, there being bureaus of sanitary engineering, laboratories, communicable disease, venereal disease, education, embalming, and child hygiene and public health nursing.

The next frolic of the Wayne County Medical Society is scheduled for the evening of January 31st. The Entertainment Committee is not announcing what form it will take. They simply advise the members not to miss it.

Doctor Clyde F. Karshner of Chicago read a paper before the Medical Section of the Wayne County Medical Society on December 13th, on "The Non-surgical Drainage of the Gall Bladder."

Doctor Wadsworth Warren of Detroit was appointed December 9th to the Welfare Commission by Mayor James Couzens to take the place of James McNamara who died recently. Doctor Warren's term will run to March 1, 1924.

Doctor D. Milton Green, for a number of years a practitioner of medicine in Grand Rapids, is chairman of the executive committee and head of the surgical staff of the Municipal Highland Park Hospital.

The following physicians had tables at the D. A. C. Election Night Party: F. G. Buesser, C. D. Brooks, F. J. W. Maguire, B. R. Shurly, Carl S. Oakman, W. H. Morley and R. C. Jamieson.

The State Board of Registration in Medicine will hold a special examination in Detroit early in January. The exact date will be announced later.

Following the special meeting of the Michigan State Board of Registration in Medicine, Doctor Frank Kelly entertained the members of this board at dinner at the Detroit Athletic Club.

Doctor E. B. Forbes who is one of Detroit's best amateur bowlers, stood third in the November list of the D. A. C. with an average of 187.

Doctor J. B. Kennedy of Detroit was reappointed Library Commissioner by the Detroit Board of Education on December 10th. The term is for six years.

Miss Margaret Longyear, youngest daughter of Doctor and Mrs. H. W. Longyear of Detroit was married December 11th to Mr. W. B. Palmer, Jr., of New York City.

Doctor Joseph Belanger of Detroit spent ten days at Watkins Glen N. Y. during the month of December.

Doctor George LeFevre was elected last November City Councilman of Muskegon for the term of four years.

Doctor E. W. Haass of Detroit has returned from Palm Beach, Florida. This was primarily a professional, not a pleasure trip.

Dr. Louis Barth of Grand Rapids is planning a trip around the world and contemplates leaving the latter part of February.

Dr. W. Riley has become associated with Drs. R. J. Hutchinson and Beel of Grand Rapids.

Doctor and Mrs. Justin E. Emerson of Detroit are spending the winter in St. Petersburg, Florida.

Dr. D. Emmett Welsh spent the holidays with relatives in Pennsylvania and New Jersey.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. Secretaries are urged to send in these reports promptly

GENESEE COUNTY.

The Genesee County Medical Society met on Wed. Dec 1st. 1920. Pres. Orr presiding. A clinical section of the Society was formed. This section will meet twice a month. The programs will be given by local men and will include clinics and reports of cases. As our regular meetings are addressed by out-of-town men, it is hoped that this plan will stimulate our members to scientific activity.

Dr. Louis J. Hirschman of Detroit, gave an excellent address on "Some Pitfals in Proctology." Methods of examination of the Colon, Sigmoid and Rectum were described and a brief resume of interpretation of findings was given.

W. H. Marshall, Sec'y.

GRATIOT-ISABELLA-CLARE COUNTY.

The November meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Methodist Church in Alma, Thursday, Nov. 18.

For out-of-town guests we had Pres. Angus McLean and Dr. W. R. Clinton of Detroit.

The applications of Doctors A. T. Getchell, M. G. Becker, F. C. Sanford, B. J. Sanford, W. F. Clute, R. S. McClinton and M. J. Budge for membership, were received, and upon recommendation of the Board were duly elected to memberships.

Dr. Angus McLean then gave a very interesting talk on "Progress in Medicine for the Last Three Decades."

Dr. W. R. Clinton read a carefully prepared paper on Radium, explaining how it was used, and the therapeutic effects in benign and malignant growths.

E. M. Highfield, Sec'y.

GRATIOT-ISABELLA-CLARE COUNTY

The annual meeting and banquet of the G. I. C. was held in Alma Thursday, Dec. 16. The business meeting was called to order by President Lamb at 4:30. The application of Dr. G. E. Lamb of Farwell was received and by motion he was elected to membership. The annual report of the Secretary was read and approved.

The following were elected officers for 1921:
President—L. J. Burch, Mt. Pleasant.
Vice-President—R. E. Smith, Alma.
Secretary—E. M. Highfield, Riverdale.

The annual banquet was served in the Baptist Church. Thirty-one enjoyed the turkey and other goodies, after which Doctor and Mrs. Foust and S. E. Gardiner responded to toasts. The program was shortened through the illness of Doctors C. F. DuBois and W. E. Barston.

E. M. Highfield, Secretary.

INGHAM COUNTY.

The Annual Meeting and Banquet of the Ingham County Medical Society held at the Hotel Downey, Nov. 18th was very well attended. The membership at present exceeds any year in the history of the Society. The retiring President Dr. F. M. Huntley presided and Mr. Edmund C. Shields spoke on the Medical Profession from the standpoint of a member of the legal profession. He urged physicians to take more active part in public affairs. Dr. H. S. Bartholomew gave a short talk on Medical men in public life. Excellent music was furnished by an orchestra composed of members of the Society, under the direction of Dr. F. M. Harris.

The following officers were elected for 1921:
President—Dr. Fred J. Drolett.
Vice-President—Dr. M. L. Holm.
Sec'y and Treas.—Dr. Milton Shaw.
Delegates—Dr. B. M. Davey, Dr. S. Osborn.
Alternates—Dr. E. J. Carr, Dr. Karl B. Bruker.
Medico-Legal Representative—Dr. B. D. Niles.

A committee was appointed to investigate the State Industrial School buildings and property to determine the feasibility of the City of Lansing acquiring the property for hospital purpose.

Milton Shaw, Sec'y.

KENT COUNTY

The annual meeting of the Kent County Medical Society was held at Grand Rapids on the evening of Dec. 8th, 1920. After the usual yearly reports, the following officers were elected for 1921:

President—Dr. James S. Brotherhood.
Vice-President—Dr. Henry M. Blackburn.
Secretary-Treasurer—Dr. Frank C. Kinsey.
Defense League Representative, Dr. G. L. McBride.
Delegates to State Society—Dr. Frank C. Kin-

sey, Dr. J. D. Brook of Grandville, Dr. A. V. Wenger and Dr. F. J. Lee.

Alternates—Dr. W. E. Wilson, Dr. V. M. Moore, Dr. T. C. Irwin and Dr. A. H. Edwards. Dr. Frances A. Rutherford, one of Michigan's pioneer women physicians, was made an honorary member of the society.

Frank C. Kinsey, Secretary.

KALAMAZOO ACADEMY OF MEDICINE.

Report of the Secretary.

With this the annual meeting of the Kalamazoo Academy of Medicine closes a very successful year of work when viewed as a whole.

We have had sixteen regular meetings during the year. For a time the attendance was not up to the usual mark and it was decided to try an evening meeting. However, the attendance did not increase and practically the same physicians attended as usual. For this reason your officers —with whom the decision for future evening meetings was left—held they were not justified in further experiment in that it inconvenienced some of the men outside of Kalamazoo. For the last of the meetings the attendance has increased considerably as has general interest in the work of the Academy.

Your Secretary wishes to commend the work of the various committees, and calls attention to those who have made written reports.

The Academy lost one member—Dr. Bruce E. Leighton—by death.

The Academy was host to the Michigan State Medical Society during the past year.

Your Secretary also wishes to call attention to the increase in dues by $1.50 over the usual amount.

Respectfully submitted,
B. A. Shepard, Secretary.

Report of Treasurer.

Receipts, 1920

62 Active City Memberships	$527.00	
56 Active County Memberships	336.00	
4 Associate Memberships	12.00	
Interest on Savings Fund	2.82	
Overpaid Dues, Dr. Pitz	1.00	
War Assessment	5.00	
		$ 883.82

Expenditures, 1920

State Society Dues	$420.00	
Guests	23.15	
Postage and Stationery	69.10	
Printing Bulletins	209.10	
Library	84.00	
Telephone	59.95	
Lights	7.34	
Flowers	43.00	
Insurance	11.22	
Auditing, 1919, Treasurer	15.00	
Annual Banquet	50.55	
Refund of Overpaid Dues		
Dr. Pitz.	1.00	
Dr. Crane	8.50	
Janitor	31.18	1,033.09
Deficit, 1920		$ 149.27

Contributions for Entertainment State Medical Society	$940.00	
Receipts from Country Club Luncheon	67.50	
Receipts from Banquet, K. P. Hall	565.00	1,572.50
Expenditures for Entertainment State Medical Society.		
Banquet, K. P. Hall	750.00	
Lunch at New Burdick	250.00	
Luncheon at Country Club	109.00	
Fischer's Orchestra	36.00	
Cigars and Cigarettes	59.15	
Alumni Girls' Quartet	25.00	
Kalamazoo Sign Co.	20.00	
Horton-Beimer Press	10.00	
Refund to members from entertainment fund	45.50	1,304.65
Balance for General Fund		$ 267.85
Balance from 1919		
Savings account	$188.61	
Checking account	313.49	
Balance from entertainment fund	267.85	769.95
Deficit in General Fund for 1920		149.27
		$ 620.68
Nov. 30, 1920, First National Bank Savings account	$191.43	
Checking account	485.00	676.43
Vouchers outstanding		
Oct. 20, D. Emmet Welsh, No. 267	$ 3.50	
Nov. 15, Horton-Beimer, No. 271	40.50	
Nov. 15, Dr. N. E. Leighton, No. 272	3.25	
Nov. 15, Dr. Udo J. Wile, No. 273	8.50	55.75
		$ 620.68

Respectfully submitted,
Dan H. Eaton, Treasurer.

The auditing committee verifies the Treasurer's report as per audit.

C. B. Fulkerson,
W. A. Stone,
A. S. Youngs.

Annual Report of the Anti-Tuberculosis Committee.

No other important matters coming before it, the work of your committee during the past year has been to co-operate with the Department of Health and Welfare in conducting the work of the Dispensary and also with the State Board in making its Tuberculosis Survey.

Respectfully submitted,
Ward E. Collins, Chairman.

Report of the Librarian.

The following journals on file in the Academy have been carefully selected to meet each phase of the medical interest and individual interest:

American Journal of Medical Science.
Archives of Internal Medicine.

Medical Clinics of North America.
Surgical Clinics of Chicago.
Surgery, Gynecology and Obstetrics.
Annals of Surgery.
Journal of Laboratory and Clinical Medicine.
Journal of Endochinology.
Journal of Infectious Diseases.
American Journal Disease of Children.
American Journal of Syphilis (donated by Dr. J. T. Upjohn).
Annals of Medical History.

The shelves of the Library are pitifully inadequate for even the few books and journals.

A complete file from the early part of the nineteenth century to the time of Dr. Van Deusen, which he treasured, are retained and of interest, while several shelves of old monographs and treaties dating back even to 1739, in Medicine, Midwifery, Surgery and Mental Diseases are valuable and entertaining.

There is an opportunity of building up the historical side of the library from these old books and the Annals of Medical History which was begun just before the War—together with Kelly's New Biography of Medical Persons.

Journals and books are lost because members in taking them out do not make a record in the record book.

Blanche N. Epler, Librarian.

Report of Program Committee

The program committee has made an effort to present programs of real value throughout the year. This aim, we feel sure, has been realized and every program has been well worth attending. It has been the aim, as far as possible, to have at least one number on the program, given by a member of the local society. For the most part this has been done. We believe that the members of the Academy should realize their responsibility in this matter and that the plan of having at least one of the papers from the local society should be continued.

The program committee has been considerably embarrassed from time to time during the year by securing distinguished essayists from out of town and then being able to secure the presence of only a few of the members at the time the paper was presented. If the Academy wishes to maintain the standard of essays that we have enjoyed in the past, it would seem to be necessary that the meetings be more largely attended.

Dr. John B. Jackson,
Dr. Geo. F. Inch,
Dr. Ralph E. Balch.

MUSKEGON COUNTY.

The annual meeting of the Muskegon County Medical Society was held at the Century Club, Dec. 10, 1920.

Dr. H. M. Richter of Northwestern University Medical School gave a very interesting talk on the Differential Diagnosis and Surgery of Gall Bladder Disease.

After the scientific program the Society proceeded to the election of officers with the following result:

President—J. T. Cramer, Muskegon.
Vice-President—Dr. Geo. L. LeFevre, Muskegon.
Secretary-Treasurer—Dr. E. S. Thornton, Muskegon.
Delegate—Dr. F. B. Marshall, Muskegon.
Alternate—Dr. F. W. Garber, Muskegon.
Medio Legal—Dr. Geo. L. LeFevre, Muskegon.
Diretors: Dr. A. F. Harrington, Dr. F. B. Marshall, Dr. G. J. Hartman.

Three new members were reeived into the Society at this meeting.

Yours truly,
J. T. Cramer, Sec'y.

ST. JOSEPH COUNTY

White Pigeon, Mich., Dec. 11, 1920.

My Dear Doctor:—

It has been one year since the Medical Society of St. Joseph County was reorganized, and every one realizes immediately what great benefits we derived from this Society and a little co-operation.

You know there is no professional class on God's green earth that could get what they want as quickly as the doctors. And, on the other hand, there isn't a bunch on God's green earth that's ready to dig "the other fellow," just a little, like the doctors. We have, thanks to our co-operation, enjoyed a nice, lucrative year. But after our strenuous day's work, we have let our Society go to the devil; we do not attend meetings, or even make an effort to. Some of the old heads told us it wouldn't last a year, and they are about right.

Now, let's get together and make one more mighty effort and keep the Society on top.

We have lots of things confronting us, and our Society can be of inestimable value to us. There is a period of reconstruction upon us. A drop in fees is urged by laity; compulsory health insurance; life insurance examination fees, and seven more doctors to be brought into the fold. County hospital project; T. B. and venereal clinics and other conditions are bound to come up. Every one of us is now delinquent. Our State Society wants and needs us, which in turn builds up the A. M. A.

In view of all these things, the officers of this Society hereby call a meeting at Hotel Elliot, Sturgis, at eight o'clock P. M., December 17, 1920, for transaction of such business as may properly come before it.

Now, Doctor, listen—do not throw this aside. Make a mental reservation of the date and time, and come. No one will be asked to "spiel." This is purely a social and business meeting. Dinner will be $1.50 the plate. Just tack a little on that guy's bill to get you by, you know. It's come or ruin, going or quits, win or lose. And now, honest, Doctor, have you done your duty to keep it going? We couldn't run it alone, you know. We need your presence—that's the big thing. Doctor, if you are sore at the other fellow, down in the mouth about something, sore on the Society or disgruntled, forget it, for God's sake and your sake and come out. Or, to quote one of the officers, we'll "let 'er go to hell."

Remember, your presence is the big thing. **Come!**

Read these next few lines closely. We will order dinner for the whole gang, and, providing the secretary's doesn't hear from you in the next few days that you cannot possibly attend, you will be assessed the price of the dinner along with the other expenses of the year, per capita, which will require a personal trip to each doctor by the treasurer, because, if we don't turn out this time, it's the last call. Now, that's straight; you won't be bothered again with notices. Just to repeat—Last call, Elliot House, Sturgis, 8 o'clock, social and business. Come, yourself; don't depend on other fellow.

David M. Kane, President.
Fred A. Lampman, Secretary-Treas.

ST. JOSEPH COUNTY

At meeting of St. Joseph County Medical Society, Dec. 17, at Sturgis, Mich., we had an average attendance. Considering roads we were well pleased.

Moved by Dr. Watkins, seconded by Dr. Miller that the present officers, Dr. Kane, Sturgis, Pres., and Dr. Lampman, Secretary, White Pigeon, continue office for another year. Motion carried.

Following report for the year by the treasurer motion made by Dr. Burdens, seconded by Dr. Robinson, the dues of county society be $7.00. Motion carried.

The following doctors then enrolled for 1921: Drs. Kane, Lampman, Miller, Kelley, Robinson, Runyan, Burdens, Cameron, Watkins, Barney.

An interesting discussion on Compulsory Health Insurance and Hospital projects followed. Dr. Kane was appointed to see our representative relative to Compusory Health Legislation if brought up at next session. Meeting adjourned subject to call of president.

Fred A. Lampman, Secretary.

TRI-COUNTY

"As beneficial as a short post-graduate course at any good medical college," was the comment one Cadillac physician made concerning the clinic held here Thursday by doctors from the staff of the Battle Creek sanitarium.

About forty doctors from Northwestern Michigan attended the clinics, lectures and demonstrations given by the visiting team. Every hour of the day was completely taken up with the work and enough medical knowledge was imparted to fill several ordinary days, it is stated.

The doctors from Battle Creek who directed the various tests and gave the lectures were: Dr. L. Eggleston, internist and team captain; Dr. Joseph T. Case, surgeon; Dr. W. O. Upson, roentgenologist; Dr. G. M. Dobbin, laboratory. Miss Hayne, registered nurse and assistant to Dr. Eggleston, also came to assist in the preparation of cases for the clinics.

An excellent group of cases was provided for the demonstrations. One particularly good gall case provided an opportunity to enlighten the visiting doctors on the non-surgical drainage of the gall bladder. By this method, which is entirely new, the contents of the gall bladder are removed for diagnosis by means of a tube swallowed into the stomach and gradually worked into the gall duct. This obviates the necessity for operating for diagnosis. The X-ray will show gall stones, say the doctors, but other conditions are not easily determined without opening the gall bladder.

One abdominal surgical case was operated upon and Dr. Joseph Case performed the operation while Dr. Eggleston lectured on each successive step. The entire preparation of the case was done before the visiting doctors who saw the blood count, urinalysis and other preparatory work performed.

A barium meal was given one patient for the purpose of diagnosing internal trouble by means of the flueroscope. By this method the stomach is outlined by means of food impregnated with salts of barium, which is metallic and opaque to the X-ray. The fleuroscope is in effect a moving picture of the living organism and projects the X-ray through the body and onto a screen where the observers may watch the functioning of the organs.

The program included laboratory and X-ray clinics at Mercy Hospital in the morning; surgical clinic in the afternoon; medical clinic in the American Legion club rooms later, followed by a banquet at the Hotel McKinnon. Following the banquet there was a business meeting of the society and a lecture illustrated by stereopticon slides.

Physicians from Cadillac to the Straits are included in the membership of the Northwestern Michigan Clinical Society.

Officers for next year were elected as follows:

President—Dr. G. W. Fralick, Maple City.

Vice President—Dr. F. S. Rowley, Traverse City.

Secretary-Treasurer—Dr. Frank Holdsworth, Traverse City.

The retiring officers are: President, Dr. R. R. Armstrong, Charlevoix; Vice President, Dr. G. W. Fralick, Maple City; Secretary-Treasurer, Dr. B. H. Van Leuven, Petoskey.

The Tri-County Medical Society including the medical men of Wexford, Missaukee and Kalkaska counties, were hosts to the district society.

After the election of officers an appeal was made by Dr. O. L Ricker that the Society follow the example of the American Medical Association and the State Medical Society and go on record as opposing state medicine and the plan of treating large groups by contract. A resolution to this effect presented by Dr. G. D. Miller was unanimously adopted by the Society.

Book Reviews

THE RADIOGRAPHY OF THE CHEST—PULMONARY TUBERCULOSIS. Walker Averend, M.A., M.D., East Sussex Hospital, London, England. Cloth, 119 pages, 99 radiograms. C. V. Mosby Co., St. Louis, Mo. Price $5.00.

The progress of recent years of Roentgen-ray diagnosis of pulmonary disease has established the value of this means of arriving at a more

accurate diagnosis. The correct interpretation of a given plate is the test of this adjunct and to correlate the ray and clinical findings. To make accurate readings more possible and to interpretate the plate correctly the author has here presented a text that imparts a technic and correct reading of the findings. It is based on his many years of work and experience. He has summarized his data in a splendid manner. With splendid illustrations, clinical notes and findings the author drives home the essentials of correct interpretation.

The book should and will be welcomed by every Roentgenologist.

HYGIENE OF COMMUNICABLE DISEASE: A Handbook for Sanitarians, Medical Officers and General Practitioners. Francis M. Munson, M.D. of the Medical Corp, U. S. Navy. Cloth, 775 pp. Price $5.50. Paul B. Hoeber, New York.

Here is a concise and readable manual and text present in accessible form the latest information available concerning epidemiology and management of communicable diseases. It is a text that is complete in detail and void of unessential material. It imparts that information that is so essential in the handling of communicable diseases and enables one to quickly grasp the important details.

It is a text that wins and merits our hearty endorsement. It is bound to receive a cordial reception.

PSYCHOPATHOLOGY. Edward J. Kempff, M.D., Clinical Psychiatrist, St. Elizabeth's Hospital, Washington. Cloth, 762 pp. C. V. Mosby Co., St. Louis, Mo. Price $9.50.

This book has been written for the professional student of human behavior who must have an unprejudiced insight into human nature in order to deal justly and intelligently with problems of abnormal behavior as they are brought to the physician, rectory, police courts, prisons and asylums, and the directors of schools and colleges and the commanders of military and naval organizations.

In order to avoid speculation and theorizing, most of the space is devoted to plain expositions of the actual difficulties of cases. They are presented to speak for themselves. Naturally an enormous amount of valuable data on delusions, halluicnations, symbols, symptoms, defensive and compensatory methods of thinking, different types of inferiorities and causes of inferiorities, etc., is scattered through these cases. The most important illustrations have been collected together in the index to be readily accessible to the reader. For this tedious, difficult work I am especially indebted to Mrs. Kempf. The index has greatly increased the usefulness of the book.

Miscellany

EPEDEMIC ENCEPHALITIS.

1. The complete clinical picture of lethargic encephalitis can be readily recognized. Many atypical forms, however, may occur. These on one hand may resemble such severe conditions as cerebral haemorrhage or uremia, or on the other hand they may appear so slight and trivial that the correct diagnosis is missed.

2. It is probable that the infection is wide spread during an epidemic, and that carriers may spread the disease.

3. It would appear that the incubation period is about two weeks.

4. Tremors and myoclonic contractions are of common occurrence.

5. Late sequelae of the nature of muscular spasms are to be looked for. Optic atrophy and other after-effects have been noted.

6. A remarkable epidemic of hiccough appeared synchronously with the encephalitis epidemic.

7. The pathology may be summarized as interstitial inflammation of the central nervous system with secondary parenchymatous degeneration.

8. In a number of cases of cranial nerve disturbance the corresponding nerve fibres were pressed upon by greatly dilated vessels, the nuclei being comparatively normal.

9. In seven cases peculiar hyaline bodies, apparently the result of degeneration, were found in the central nervous system.

10. The disease presents somatic as well as cerebral manifestations. Wide-spread haemorrhages were present in the serous membranes in three cases, pointing to a general septicaemic condition.

11. Vascular and degenerative changes were present in the kidneys in many of the cases. (Annals of Medicine July 1920, William Boyd.)

ACUTE INFECTIOUS AORTITIS.

1. It is a well established fact that acute inflammation of the aorta occurs fairly frequently during the course of or during the convalescent period of many acute infectious diseases.

2. Clinical signs and symptoms of complicating acute aortitis may be absent or so slight as to lead to this localization being overlooked.

3. Retrosternal pain or distress, varying in degree from a mild sterno-cardia to a complete "angina pectoris," is an important symptom of acute aortic dysfunction.

4. Minor changes in the aorta, as shown by roentgen proof of its lengthening and elevation, may be the earliest demonstrable sign.

5. The prognosis is not grave in the young. It depends upon several associated factors: the type of infection, involvement of aortic valves, blocking of coronary arteries, and the degree of myocardial damage. (Annals of Medicine July 1920, George Brown.)

EPIDEMIC ENCEPHALITIS.

In conclusion, I wish to warn against esophagoscopy in compression stenosis, to emphasize its value in diagnosis of cicatricial and spasmodic stenosis, and finally to urge esophagoscopy as a routine examination in all cases with symptoms referred to the region of the esophagus. By so doing, it will be possible in many cases to make an early diagnosis of the esophagus which, at present, are not diagnosed until the disease is far advanced. (Annuals of Medicine July 1920, Elmer Freeman.)

The Secretary of the Society will please notify the State Secretary immediately of any errors or change in these offices.

COUNTY SOCIETIES

BRANCHES OF THE MICHIGAN STATE MEDICAL SOCIETY

County	President	Address	Secretaries	Address
ALPENA	GEORGE LISTER	Hillman	C. M. WILLIAMS	Alpena
ANTRIM, CHARLEVOIX, EMMETT	G. W. FRALICK	Maple City	F. HOLDSWORTH	Traverse City
BARRY	C. H. BARBER	Hastings	GUY KELLER	Hastings
BAY, ARENAC, IOSCO	G. M. McDOWELL	Bay City	L. P. FOSTER	Bay City
BENZIE	J. M. STONE	Honor	E. J. C. ELLIS	Benzonia
BERRIEN	C. V. SPAWR	Benton Harbor	J. F. CROFTON	St. Joseph
BRANCH	G. H. MOULTON	Coldwater	A. G. HOLBROOK	Coldwater
CALHOUN	W. S. SHIPP	Battle Creek	WILFRID HAUGHY	Battle Creek
CASS	G. W. GREEN	Dowagiac	JOHN H. JONES	Dowagiac
CHEBOYGAN	A. M. GEROW	Cheboygan	C. B. TWEEDALE	Cheboygan
CHIPPEWA, LUCE, MACKINAW	C. J. ENNIS	Sault Ste. Marie	F. H. HUSBAND	Sault Ste. Marie
CLINTON	H. D. SQUAIR	St. Johns	D. H. SILSBY	St. Johns
DELTA	J. J. WALCH	Escanaba	G. MOLL	Escanaba
DICKINSON-IRON	WM. J. ANDERSON	Iron Mountain	L. E. BOVIK	Crystal Falls
EATON	STANLEY STEALY	Charlotte	PHIL H. QUICK	Olivet
GENESEE	J. WALTER ORR	Flint	W. H. MARSHALL	Flint
GOGEBIC	W. E. TEW	Bessemer	GEORGE E. MOORE	Ironwood
GRAND TRAV., LEELANAU	J. W. GAUNTLETT	Traverse City	H. V. HENDRICKS	Traverse City
HILLSDALE	O. G. McFARLAND	Montgomery	D. W. FENTON	Reading
HOUGHTON, BARAGA, KEWEENAW	G. A. CONRAD	Mohawk	W. R. McKINNON	Calumet
HURON	A. E. W. YALE	Pigeon	S. B. YOUNG	Caseville
INGHAM	FRED J. DROLETT	Lansing	MILTON SHAW	Lansing
IONIA	V. H. KITSON	Ionia	M. O. BLAKESLEE	Ionia
GRATIOT, ISABELLA, CLARE	L. J. BURCH	Mt. Pleasant	E. M. HIGHFIELD	Riverdale
JACKSON	GEORGE R. PRAY	Jackson	CHAS. R. DENGLER	Jackson
KALAMAZOO AC., KALAMAZOO, VAN BUREN, ALLEGAN	W. DEN BLEYKER	Kalamazoo	B. A. SHEPARD	Kalamazoo
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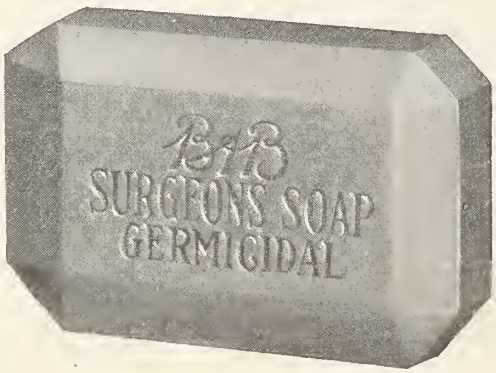

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Original Articles

MYXEDEMA.

THEODORE A. MCGRAW JR.
DETROIT, MICH.

Primary myxedema in an advanced stage is not only a rare disease but, owing to the more wide-spread knowledge of endocrinology among the profession at large, is becoming more and more infrequent. Hypothyroidism is now being recognized so early that proper organotherapy usually forestalls advanced myxedema. But even yet, as Anders (1) recently pointed out, a certain number of cases are still being missed by physicians.

The following reports such a patient who, being five years without treatment, developed very severe myxedema with secondary involvement of the pituitary and the gonads but who obtained complete relief through organo-therapy. In this case wrong diagnoses were made by several physicians over a period of four years, treatment being usually directed (and in vain) to the uterine hemorrhage which was the result of the myxedema. The true condition was first recognized by the physician who referred her to the writer for treatment.

Mrs. H. A. referred by Dr. E. S. Peterson of Jackson, 29 years old, married four years, never pregnant. Her family history had no apparent bearing on the case. She had aways been in good health until five years ago when the first symptom, edema around the eyes, appeared. A few weeks later, about a year before her marriage, she had the first severe uterine hemorrhage; it came at her menstrual period which up to that time had been of normal type. Following this the menses became very irregular and profuse with an occasional severe hemorrhage. The symptoms of myxedema described below gradually increased in severity during the next four years

Examination: The patient, a short slightly obese woman, appears quite drowsy and apathetic. She talks in a hoarse monotone and waits an appreciable time in replying to questions. Her memory for recent events is very poor.

Head: The face, alabaster in color, is thick with myxedematous infiltration making the eyes appear very small, yet at the same time the chin and the prominent malars are suggestive of acromegaly. The lips are thick and cyanosed; the teeth normal except for spacing of the upper central incisors. The palatal arch is very high.

Skin: very dry and thickened; there are large supraclavicular pads.

Hair: abundant on head; pubic and axillary hair and outer third of eyebrows very scant.

Thyroid: neither visible or palpable.

Hands: Skin wrinkled coarse and dry. The tapering fingers resemble those seen in pituitary disease.

Temperature averages 98.8 degrees and pulse rate 112.

Weight: 149 pounds, an increase of 29 pounds in five years.

Blood: shows a marked secondary anemia with prolongation of the coagulation time.

Roentgen examination: The sella is very large, measuring 16 by 15 mm (average is 12 by 6 mm). The posterior clinoid processes show irregular thinning suggestive of pressure. The bones of the hands are normal.

Basal metabolism: This test was not available at the time the examination was made (1916).

Diagnosis: Primary myxedema with secondary disturbance of the pituitary and the gonads.

Treatment: The patient was first given four grains of thyroid extract daily; at the end of two weeks the waist measure had decreased two inches and the skin had improved in texture. However symptoms of hyperthyroidism (tachycardia and diarrhea) appeared so the dose of thyroid was ordered cut to two grains every other day and, on account of the possibility of insufficient function of the pituitary (as will be discussed later), ten grains of the extract of the whole gland were prescribed daily. But owing to a misunderstanding the patient did not decrease the thyroid extract but continued to take four grains a day along with the pituitary. Curiously enough, when the pituitary extract was given with the thyroid extract the symptoms of hyperthyroidism induced by the same dosage of thyroid disappeared and did not recur. After a little experimenting the patient was found to improve best on two grains of thyroid and ten grains of pituitary daily.

Outcome: as a result of two months treatment there occurred:

1. Rapid loss of weight, 34 pounds.
2. Disappearance of all myxedematous infiltra-

tion and desquamation of the hands and feet leaving the skin soft and pliable.

3. Entire change of disposition from apathy and stupidity to liveliness and intelligence. Improvement in memory. A cessation of the drowsiness with a tendency to insominia.

4. Clearing of the voice.

5. A susceptibility to heat instead of to cold.

6. A return of the blood to normal.

7. No further uterine hemorrhage. The patient had one normal period after treatment was begun, then became pregnant giving birth to a healthy child at term.

During the war the patient was lost sight of but a recent letter, written four years after treatment was started, states that she is in good health but is still taking thyroid extract under supervision of her physician.

Figure I Before treatment.

Figure II After two months treatment.

DISCUSSION.

Etiology: A sclerotic degeneration of the thyroid gland with destruction of the secretory apparatus is the etiological factor in spontaneous myxedema. The causes of the degeneration are usually obscure. Falta (2) mentions syphilis, actinomycosis, scleroderma and various infections as precusors of the myxedema in some cases. Heredity too must be considered with syphilis, tuberculosis and alcoholism in one or both parents. In this case, as in most, no known cause of the disease could be discovered. Photographs of the patient in early life give no hint of the impending trouble.

Interrelation of the endocrines: One of the most interesting features of this case is the attempt on the part of the pituitary to compensate for the thyroid insufficiency. Since Rogowitsch (3) twenty-one years ago called attention to the interrelation of the two glands, it has been many times confirmed both by clinical observers and laboratory workers. In 1911 Hoskins (4) reviewed the literature on the subject and as a result of his investigations thought that "despite the variations in details, the clinical and experimental data appear to indicate rather conclusively that the pituitary hypertrophies as a reaction to hypothyroidism." The changes that take place in the pituitary have been described by Eichhorst(5) 1916; his article has been abstracted thus: "The pituitary becomes larger and shows an enormous hyperemia, often hemorrhages are observed. The glandular cells grow; the chromophil cells degenerate and are replaced by cells which show the same structure as the pregnancy cells of Erdheim and Stumme. Later on a growth of connective tissue is to be seen; then the glandular tissue becomes atrophic; in the connective tissue necrosis and the formation of cysts is observed. At the end of the disease the pituitary body becomes smaller and smaller."

In this case the hypertrophy had caused an enlargement of the sella with thinning of the clinoids. The results of the over-activity of the gland are also seen in the slightly acromegalic features and the spacing of the upper central incisors. Such a compensatory activity

extending over a long period of time as this must have done is readily followed by an insufficiency of the overworked gland. While pituitary insufficiency is suggested by the increased weight, the drowsiness, loss of memory and scanty pubic and axillary hair, these symptoms are also those of the myxedema.

Uterine hemorrhage: Disturbance of the menstrual function is a common accompaniment of endocrine imbalance. While there is much to be learned of the physiology of menstruation, it is fairly well established that, although the ovary is most directly involved, other endocrines, particularly the pituitary and the thyroid, also have important roles; so that menstrual disorders are frequent in function-

Figure III Before treatment.

Figure IV After two months treatment.

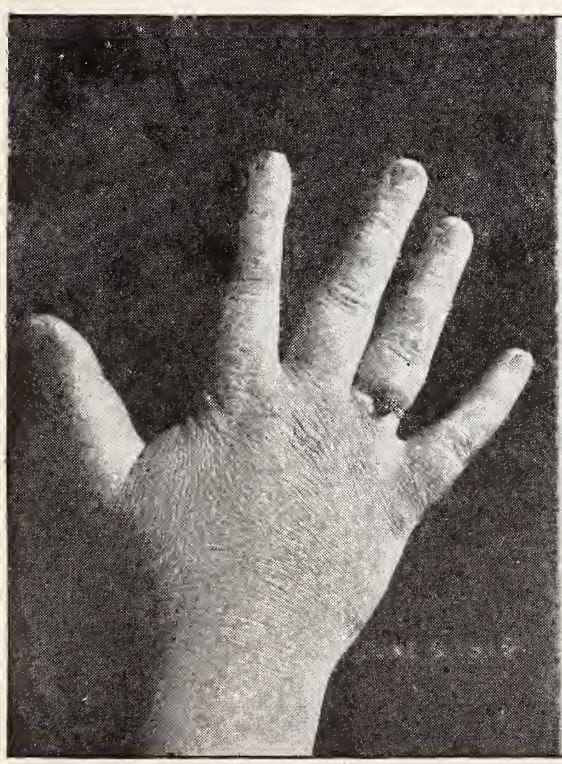

Figure V Before treatment.

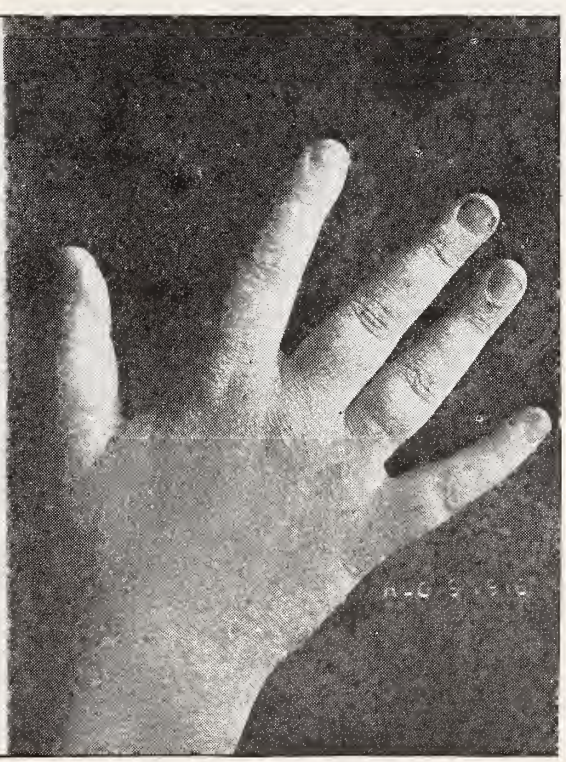

Figure VI After treatment.

al or organic disease of these glands. Although menstrual disturbance is frequent in hyperthyroidism, it is almost the rule in myxedema and usually takes the form of menorrhagia. There has been considerable discussion as to the cause of the menorrhagia, several theories being advanced such as (1) that it is the result of the lack of a harmone controlling menstrual flow; this is purely speculative; (2) That it is due solely to the anemia always present in myxedema, the increased fluidity of the blood accounting for the profuse flow. Opposed to this is the fact that menorrhagia is rare in other forms of anemia. It may however be a partial factor in the menorrhagia of myxedema. (3) That it is due to a myxedematous infiltra-

Figure VII Sella.

tion of the myo- and endometrium. This seems the most probable explanation. Hertoghe (6) in his classic on myxedema accepts this theory: "The higher the degree of thyroid inadequacy, the greater the menstrual losses. The profusion of discharge is due directly to infiltration of the muscular element as well as of the uterine mucosa, combined with a want of coaguability on the part of the blood. That an important role is played by muscular atrophy is very evident."

The restoration of normal menses after two weeks of treatment followed by pregnancy after four years of sterility are points of interest in this case. In the myxedematous male the gonadal disturbance may take the form of loss of libido and impotence with occasionally atrophy of the genitals.

The anemia, marked in this patient, is nearly always found in myxedema but it is not definitely known just what the connection is between the thyroid and the hematopoietic system. Thyroid therapy quickly restored the blood to normal.

A normal temperature and a pulse rate above normal are very unusual occurrences in myxedema. In fact in Janney and Hendersons' series (7) subnormal temperature, pulse rate and respiration occurred in 81 per cent. of the cases, no other symptoms occurring so frequently.

Prognosis: The fact that after four years the patient is still free from myxedematous symptoms and is in good health, although compelled to continue the thyroid extract, makes for a favorable prognosis as regards long life. The writer has just seen again for the first time in three years a patient whom he diagnosed as a case of myxedema nine years ago. He has kept himself in fair condition by taking two grains of thyroid daily in courses of six weeks with intermissions of about one month. The first intimation he has that he needs further treatment is always hoarseness of the voice due to infiltration of the vocal cords. When examined a few days ago the patient's only complaint was that he felt the cold severely. On investigation his temperature was found to be 95.8 degrees, his pulse rate 64 and his voice slightly hoarse. A larger dose of thyroid to be taken continuously was prescribed and will undoubtedly right his condition. That a myxedematous patient properly treated may live a long time is shown by Murray (8). His patient was kept in good health for 28 years finally dying at the age of 74 from heart disease.

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THE NEUROTIC PATIENT.*

IRWIN H. NEFF, M.D.
DETROIT, MICH.

INTRODUCTION.

The main purpose of the paper is to emphasize the fact that the neuroses and psychoneuroses are disease entities.

"Strictly speaking they are not diseases in the medical sense at all, but only in the social sense; it may be said that the neuroses are

*Read at a meeting of the Oakland County Medical Society, Nov. 3, 1920.

the result of a conflict between man and society, whereas other diseases are the result of conflict between man and nature. This fundamental distinction is not often grasped by members of the medical profession, who commonly regard all diseases from one standpoint."[1]

Another purpose of the paper which I will allude to later is the increasing menace of quackery, which is due largely to the failure of the physician to appreciate the importance of the neurotic element in disease.

Our present day knowledge of what we formerly termed "functional nervous diseases," is a radical departure from the rather imperfect understanding which we formerly possessed.

It is incumbent on us to realize that coincident with the newer developments in neurology we have enormously increased our knowledge of what is conveniently termed the neuroses and psycho-neuroses; it is not sufficient to profess satisfaction or to be content with the old designations neurasthenia and hysteria and to relegate all nervous diseases unrelated to structural disease to one of these main groups without qualifying our diagnosis.

An idea of the frequency of the neuroses may be gained by studying the Surgeon General's reports of enlisted men who were reported unfit for military service. The total of unfitness 16 per cent included a large number of men with nervous and mental defect; 63 per cent of the 72,000 rejections for nervous and mental disease can be placed in the neurotic group comprising the simple neuroses inebriety, mental defect and certain psychopathic states, these figures referring to a limited number can be used as a basis of an estimate as to what the number would be if women and children outside the military age were counted. We hear much these days of the mal-adjusted individual, the socially unfit, the delinquent and feeble minded, and doubtless some of us are wondering if these are not as it were new creations, however, the physician who deals with groups or individuals will have little difficulty in recognizing old friends with possibly new faces. As a matter of fact human nature has not changed and from time immemorial ill adjusted individuals of definite types have existed manifesting in many ways defects and delinquencies; modern methods of research and study has developed a system of differential diagnosis whereby we can classify such people and determine their influence in our social scale, such differentiation has also given to us an adequate method of defence, medically speaking if we have a clearly defined disease picture, we are better able to furnish a prescription for the disease; a large per cent. of nervous sufferers belong to the neurotic class, clinically speaking the word neurotic signifies nervous phenomena, its use however is generally restricted to nervons symptoms found in functional nervous diseases.

Before we consider the subject matter of the paper I would have it clearly understood that much valuable and constructive work has been done and will continue to be done by neurotics, such individuals to do effective work must recognize their limitations and govern their life accordingly; their maximum efficiency is only attained when they live in accord with their personality. A neurotic syndrome is a common office visitor and the physician falls short in the performance of his duty if he fails to detect its presence and to appreciate its importance; the early recognition of the condition will enhance the value of any treatment, which should be instituted before the symptoms and mannerisms of the disease have become chronic or insistent.

The large proportion of improvements reported from treatment of the "war neuroses" can be attributed to the early detection of the syndrome and the inauguration of treatment often in the development stage contrasted with reported improvements in civil life the predominacy is considerable, the fact that patients were under military control was an important factor in securing medical approach at an opportune time, doubtless if similar favorable conditions existed in general practice allowing for the early detection of the disease the number of improvements would be increased.

As formerly mentioned it is no longer permissible to use in an unqualified way the names hysteria and neurasthenia, a working and practical classification is essential, not only for diagnostic purposes but with the intent of estimating the extent of the disease, thus allowing for appropriate treatment, for as we shall see "group" handling of these cases is unsatisfactory and unreliable; the proper remedy is assured only after an analysis of the individual case. Another point which we will consider later is the importance of recognizing one or more of the symptoms of a neurosis in any physical disease, the unanticipated uncovering of neurotic symptoms in such cases should not be ignored as a failure to appreciate their influence may unduly prolong the disease or inhibit recovery from the physical disease for which the patient is being treated. In order to emphasize the importance of this factor I

1. "The Treatment of the Neuroses." Ernest Jones, M.D.

wish at this time to establish these two points.

(a) Neuroses or psycho-neuroses may exist independently or may develop as a syndrome complicating an organic nervous disease or a physical disease unrelated to the nervous system.

(b) Early recognition of the nervous syndrome is essential for the maximum success of treatment which should be instituted as early as possible; failure to detect this neuroticism may prolong disease and in other ways may act to the disadvantage of the physician; neglect of the physician to recognize a neurosis and to give it the attention which it deserves is in great part responsible for the acceptance of an all too credulous public of the dictums of quackery and doctrines antagonistic to medical science.

NATURE OF THE NEUROSES.

The prevalent opinion that the complexity of the varied clinical symptoms peculiar to a nervous entity precludes a workable knowledge for the practitioner must be disregarded, for as we shall see the complexities are more apparent than real; there is nothing really mystifying about the neuroses or psycho-neuroses, they are of necessity complexes, as the basic principle is a mental complex which exerts an abnormal but dominant influence preventing a normal reaction of the patient to his environment; just as we have in any physical disease a pathagnomonic or basic symptom an analogy is seen in the neurotics, viz. a dominant symptom responsible for the syndrome. To illustrate, inflammation is expressed by pain, heat, redness and swelling; a neurotic or psycho-neurotic in consequence of his abnormal complex or changed personality may exhibit mental or physical fatigue, anxiety, impulsion, or one or more of the conversions or defensive symptoms such as paralysis, convulsions, contractures or other symptoms referable to the nervous system; such symptoms furnish a definite clinical picture which is significant of disordered nervous action with disturbed metabolism as an indirect or related condition.

The syndrome if unrelieved is a persistent one and the individuals applying for relief represent a large percentage of those who have been unable by their own effort to dissipate the distressing symptoms which may have complete control over their daily or accustomed routine; they are not malingerers, are not blessed with a "vivid imagination" but are representatives of a large group of people formerly misunderstood, the end result in many cases of a wrong method of treatment instituted with good intentions but with poor understanding.

It has been said that without propaganda no big project can be successfully launched; fortunately the one big opportunity to give publicity to these nervous maladies arrived when the reports of our neuro-psychiatric units during the World's War were published; the lay and public press eagerly adopted the name "shell shock," a name used by the neurologists to describe a composite condition. The examination of military records shows that the incidence of the neurotic and psychotic element was considerable and demonstrates that given an individual with a predisposition an emotional shock may produce a definite train of symptoms which may incapacitate the soldier to a greater or lesser degree. Identical conditions have been present in civil life, for the war has shown no new neurosis, their potency to incapacitate individuals in their daily and industrial routine has not been generally recognized, they have been misunderstood and have not received the treatment to which they were justly entitled, these untreated or ill treated patients have quite frequently developed a permanent neurosis or psychosis which might have been prevented had they been intelligently considered; let us hope that one of the lessons of the war to the medical profession has been that the so-called functional nervous diseases classed as neuroses is of considerable magnitude and that the early recognition of this group is of economic importance to the sufferer and to the community.

We have primarily represented in this group of diseases symptoms referable to the emotional sphere, they are all of psycho-genetic or emotional origin having for their starting point emotional traumas of different intensities, according to the individual reaction, and depending essentially on the inherent nerve force we have as the pathologic reaction, morbid fears, anxieties, obsessions, and the reflection of this morbid mentalization to the physical economy in which case we can observe the classical symptoms of fatigue which we recognize as neurasthenia, or we detect the varied syndrome of hysteria pictured by convulsions, paralyses, contractures, and other indications of involvement of the nervous system. Coincident with these conditions we observe a changed personality manifested by an exaggerated ego, inordinate selfishness, hypochondriasis, introspection, and emotional vagaries.

The cardinal and I am justified in naming it the pathognomonic symptom of neuroticism is inefficiency—this inefficiency is shown in the life history of the individual, this apparent lack of fighting spirit is present in graded degrees

in different individuals, the inability of the neurotic to secure his proper vocation, his lack of success due to this failure, disrupted domestic life, marital troubles, and his failure to adapt himself to society with consequent anti-social tendencies are familiar manifestations of such incapacity; this characteristic inefficiency inherent in the individual is the fertile soil on which a neurosis or psycho-neurosis may develop; the detection of this inefficiency during childhood or pubescence allowing for proper mental training, unquestionably would lessen the number of neurotics.

I hope that I have proven that the theory of the nature of the neuroses is not a complex hypothesis; the unearthing of these conditions depends on the diagnostic ability of the clinician who should remember that the disease in the complicated and uncomplicated form is often present.

MANIFESTATION OF THE NEUROSES.

Although we have in a neurosis a multiform syndrome, the presence of any of the symptoms formerly mentioned are suggestive and invite a differential diagnosis; it is only necessary to recall the habits and mannerisms of some of your "nervous patients" in order that you may appreciate that with the undercurrent defect in the neurotic we may have a single symptom which is dominant; thus we may observe alcoholism, drug addiction, self medication, nostrum takers, and excesses of varied types; such symptoms are manifestations of the neurotic personality. Again the expression may be of a physical nature producing symptoms simulating organic disease; we may also see mental symptoms akin to recognized types of insanity. Indeed the study of the manifestations of neuroticism has given us valuable knowledge of the development and course of many of the psychoses. The presence of these single symptoms is unmistakable evidence of a neurotic personality; the importance of recognizing these manifestations can not be overestimated; if the physician fails to treat the disease, admanistering to the manifestation alone he may meet with double disaster, as he may not only lose his patient, but his failure to make a proper diagnosis may discredit the profession or act disadvantageously in other ways.

Unrelieved patients of the neurotic type become office wanderers and in desperation are often driven to the compassionate "faith healer," "Christian Scientist," osteopath, or other cults; we must confess that in many cases they find relief and treatment consistent with their feelings, for as we shall see suggestion and re-education are the key stones of treatment and are not unknown to healers and manipulators." The rank and file of these people is recruited largely from the neurotic element.

Many of the habits and inconsistencies of the neurotic individual can be corrected by self effort but in my experience one fact stands out prominently namely that although these habit mannerisms are self corrective, they are products of disordered mental mechanism, and must be treated accordingly.

TREATMENT OF THE NEUROSES AND PSYCHO-NEUROSES.

The treatment of these diseases to many physicians is an unopened book, they have hesitated to turn the pages as they believe that mental analysis and mental treatment denote untold mysteries, occupying a niche by itself in specialized medicine; it is said that a little knowledge is a dangerous thing, however, I deem it to be the duty of every physician to acquaint himself with the principles of this treatment in order that he may have a working knowledge which will permit him to conscientiously recommend such a practice.

The basic idea of treatment is individualism in its more intensive form, the method of approach is an individual one, consistent with the individual findings—we must be sure of our premises and must be able to oppose the patient as to the existence of any disease which he may believe to exist, such opposition must be in accord with the patient's understanding after the physician's explanation of the reason for the presence of the morbid symptoms. One must remember that in these cases disorders of metabolism primary or secondary to the neurotic symptoms are frequently found, we should also remember that organic disease which may or may not have antedated the nervous syndrome may be a prominent factor; for these reasons a complete physical examination including laboratory tests is recommended; with a tabulation of the physical findings we are in a position to recognize the importance of the symptomatology of the neuroses. If our physical examanitaion is of negative value our problem is simplified and we are then justified in the assumption that the physical complaints enumerated by the patient are reflections of the nervous disorder; on the other hand if we find actual physical disease the correction of this if possible is essential before we institute any form of mental therapy.

Psycho-therapy perhaps a high sounding title for a form of treatment which has existed for generations is not difficult to interpret, it is

based on a sound principle and its application is not a difficult practice, I am quite sure that every one present has in some way, perhaps by a method of his own, used a form of mental therapy in his daily routine, and often with complete success.

Psycho-therapy, psycho-analysis and other forms of mental therapy are in reality methods of correction, employed with one object in view viz. eradication or modification of morbid mental action which has a controlling influence on the organism of the patient; this constructive therapy, for such it is rightly called, requires for its success a high degree of co-operation between the physician and patient—the essentials for its success are confidence and perseverance for it must be understood by both parties that the length of time of treatment depends on the intensity of the symptoms, the reaction of the patient, and on complications which may exist. The importance of co-operation is emphasized for if we con not secure the complete confidence of our patient, the optimism of the physician will accomplish but little. I will not burden you with the details of the different methods of treatment, generally speaking I will say that I have found the more simple technic satisfactory.

The method of approach is all important and the selection of the type of treatment depends on our conception of the case, the physician must remember that he is primarily concerned in discovering mental phenomena responsible for the neurotic symptoms, having by the disclosures of the patient ascertained this we proceed in the best manner possible to eradicate it from the consciousness of the patient; the eradication from the normal consciousness of fear, anxiety and attendant physical and mental symptoms can not be brought about by a simple denial of their existence or the accusation that the idea is imaginary or the administration of a nerve sedative, it is essential to have the patient understand that the physical and mental pain is the result and not the cause of the nervousness and that relief will follow the correction of the faulty mental action; the patient must understand the reason for the symptoms as they have been manifestations of a diseased state.

The correction it is true depends on the ability of the patient to introduce a certain mental and physical routine which will oppose the fault, but more important than this is the capable physician who can plan and direct the educational treatment which is sufficiently comprehensive to demand diagnostic and therapeutic ability of a high order; it is therefore evident that the proper treatment of this type of nervousness requires no hypnotic or unusual methods; if we except psycho analysis and the Freudian Doctrine the newer methods may be considered to be practically newer applications of old theories.

The treatment of the neuroses and psychoneuroses may be expressed as follows, (a) The physician must appreciate the syndrome in its entirety as pathologic, must satisfy himself as to the mental and physical condition of the patient and approach him with the assurance that his method of treatment is congenial to the personality of the individual. (b) The patient must appreciate that his interest in case is all important, and that this self interest must be sustained.

SUMMARY.

1. The field of the neuroses and psychoneuroses is perhaps the broadest field in medicine; manifestations of these diseases are frequently seen, appearing either as single symptoms or in entirety as a classical type.

2. The detection of the disease in its incipiency and the initiation of treatment appropriate to the individual case is an obligation which the physician should appreciate.

3. The diagnosis of this disease group in the prodomal or incipient stage and the practice of adequate therapy is a preventive measure of importance as by such a procedure we would prevent the development of many cases of chronic, nervous or mental invalidism.

4. The physician should remember that the declaration of neurotic symptoms does not exclude physical disease, approximately 50 per cent. of such cases reveal physical disturbance of different types, antedating, coincident with or following the declaration of the neurosis or psychosis; the aetiological factors and clinical pictures of these diseases are quite often expressions of a symptom mixture, demonstrating the inter-relation of the mind and body.

5. The basic symptom of a neurosis is of emotional origin, if this symptom manifested generally as fear or anxiety is not detected and eliminated a recognized type of hysteria, neurasthenia, or hypochondriasis may develop.

6. The treatment of the neuroses or psychoses is the exemplification of individualism in its exaggerated form; the failure of the physician to appreciate this truism may prolong or retard recovery.

7. The prevention of the different types of the neuroses by recognizing the inefficiency or incapacity is possible; this inefficiency is a constant force in the development of the neurotic syndrome.

8. The presence of neurotic symptoms during child life or pubescence is an indication for special training—the greatest function of mental hygiene is the prevention of neurotics and psychotics—which can be accomplished by detecting the disease in the formative stage.

9. Anything which has been said should not be so construed as to define responsibility or irresponsibility in any case of neurosis or psycho-neurosis; this question of medico-legal importance must be met by a study of the individual case.

THE ROLE OF BASAL METABOLISM IN DIAGNOSIS AND TREATMENT OF HYPERTHYROIDISM.

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Basal metabolism signifies the heat production of a reclining individual in a post absorptive condition. He is in a state of maximal repose short of actual sleep, about twelve hours following the ingestion of food, and heat production is then at its lowest. The thyroid gland has been shown to be the whip of protein metabolism, and any excessive outpouring of thyroid secretion will be manifested by an increased basal metabolsm rate.

It must be clear then, why so many hyperthyrod patients rapidly lose weight, while a smaller percentage, equally as toxic do not. The latter compensate by an increased ingestion of food, while the former on account of malaise or temperamental peculiarities are unable to do so. Loss of weight, one of the cardinal symptoms of hyperthyroidism may then be absent. Similarly, tachycardia is not infrequently absent due to wide variations in the irritability of cardiac musculature, and all other things being equal, the heart rate of an older patient will not increase to the same degree as that of a younger one. Two cardinal symptoms may then be absent. In addition, the thyroid may be barely palpable in some of the most toxic cases, and a careful study of the blood smears of proved hyperthyroid patients has convinced me that a lymphocytosis is not present in more than 50 per cent. of the cases—possibly depending on the duration of the thyropathy of the concomitance of an infection.

It is yet too early to state that the basal metabolic rate is raised in all cases of hyperthyroidism, and it cannot be stated that all instances of heightened metabolism are due to a primarily or secondarily hyperactive thyroid gland. It has however been shown that the thyroid gland can exert an effect on basal metabolism greater by far than any other known agency. Where the basal metabolism is increased more than twenty per cent. we can be certain of hyperthyroidism even in the absence of all other symptoms, and when the basal metabolism is not raised we cannot be certain of hyperthyroidism, even in the presence of all other known symptoms. When protein metabolism is stimulated, fat and carbohydrate metabolism are stimulated as well, because of what is known as the specific dynamic action of protein. The fundamental reaction in the production of bodily heat, whatever the material that is being burned, is the oxidation of fatty acids.

$2\ CH_2\ OH.....COOH + O_2 = 4\ H_2O + CO_2$

and fatty acids are the end product of all food constituents, whether fat, carbohydrate or protein. As the ratio of carbon-dioxide produced to oxygen used in the burning of fat, carbohydrate and protein, will vary with their percentage composition, it follows that the quotient $CO_2 = O_2$. the so-called respiratory quotient, will vary as fat, protein or carbohydrate is predominately being burned. The respiratory quotient of individuals on a mixed diet is practically a constant, and it is only with diabetes that it need be considered, in figuring the basal metabolism.

By means of the Benedict portable apparatus which I have brought here tonight, it is possible to directly measure the oxygen consumption of a given individual per unit of time, and knowing the calories of heat that can be produced per unit volume of oxygen, the heat production of an individual can be calculated.

Very mild hyperthyroid cases will show an increase up to thirty per cent., mild to fifty, severe to seventy per cent. and very severe, above seventy. It has been found by practice that it is not safe to operate on patients with a metabolism above one-hundred and sixty per cent. The manipulation of the thyroid during its resection may throw just enough more secretion into the circulation to cause death, and for the same reason it is not wise to irradiate the thyroid gland, if metabolism be above one hundred and sixty per cent. The patient fasts for about twelve hours or more, lies down for half an hour, and then is connected with the respiration apparatus through a mouth piece. The nose is shut off by a clip, and by means of a fan the air is circulated, passing through a soda-lime bottle to remove the carbon-dioxide and returning to the patient dry and fresh. The air in the spirometer is previously mixed with

about a half volume of oxygen to prevent oxygen-hunger, and when respiration has become regular, a reading is taken at the end of expiration. With an intelligent, co-operative patient, the rate at which the reading recedes will be almost a straight line. In ten minutes the reading is again taken at the end of expiration, and the difference represents the volume of oxygen used by the patient in this period of time. Corrections are then made for temperature and pressure, and the gas volume multiplied by a factor to give the calories produced in twenty-four hours. The calculated calories are compared with the figures obtained from the multiple prediction tables of Harris and Benedict, Carnegies Institute Publication No. 279, and the percentage metabolism so obtained.

CASE REPORT.

I am reporting five cases to illustrate the diagnostic possibilities of the apparatus, and two cases to illustrate its use in controlling treatment:

Mrs. J., age 47, came to me January, 1917, with a complaint of trembling, throbbing in the epigastrium, weakness, lack of appetite, and hot flashes. Her blood pressure was normal, pulse rapid, and there was considerable oral sepsis. She was carried along for three years on sedatives, in the belief that with the completion of menopause, her symptoms would disappear. January, 1920, her pulse was 120, temperature 99.8, metabolism 158 per cent. The differential showed: Polys. 63 per cent., Monuclears, 33 per cent. The thyroid was slightly enlarged. July 7, 1920, following 10 X-ray irradiations, corpus lutea, and sedatives internally, her pulse had fallen to 86, and she was much improved, except for vagrant pains. She had neglected to have the teeth attended to, and her metabolism had not been determined since April, when it was 145 per cent.

Mr. H., age 46, complained of loss of weight, about 15 pounds in one month, shortness of breath. He was very restless, eyes were staring, there was a fine tremor, profuse perspiration, rapid forcible heart. The tonsils were septic. There were many crowns. The thyroid was slightly enlarged, and there was a mitral systolic murmur. The differential count was, Polys. 32 per cent., Lymphos. 68 per cent. The metabolism on Feb. 9th, was 176 per cent; pulse 100, temperature, 99.2. With ordinary sedatives he returned on Feb. 26th, with a pulse rate of 68, and with 2 X-ray treatments the metabolism fell to 128 per cent, pulse 54, weight 148 pounds, or gain of 11 pounds. That this may have been a natural remission, as often occurs in hyperthyroidism is indicated by the fact that on Sept. 18, 1920, he returned from a three weeks vacation with a pulse of 56, weight 140 pounds, metabolism 143 per cent. The tremor and restlessness, and perspiration had returned, the metabolism had risen 15 per cent., yet the pulse rate was entirely normal.

Another case to illustrate the absolute independence of pulse-rate and metabolism is that of Dr. E., age 57, who came to see us June 25th, 1920, with the sole complaint of loss of weight, about fifty pounds in one year. A small cystadenoma of the thyroid had been removed in March, 1920. The patient was fidgety, had a slight tremor, the eyes were exophthalmic, but the thyroid was palpable and the pulse rate was only 68. The metabolism was 130 per cent. and following three X-ray treatments and rest, he began slowly to improve. It is probable that the hyperthyroidism occurs during the male climacteric more often than has been suspected and the patient may instance such a case.

Mrs. H., age 58, represents a type of hyperthyroidism in which there is a definite goitre, tachycardia, and high metabolism, with no loss of weight. Her chief complaint was shortness of breath, hot flashes and feeling of weakness. On July 24, her pulse rate was 120-124, Metabolism 165 per cent., temperature 98 degrees, weight 130. Following irradiation, and the usual sedative treatment, metabolism fell to 120 per cent. on Sept. 29, pulse rate to 68 and weight rose to 131½ pounds.

Mrs. M., age 46, had been told she had tuberculosis and had been to Florida. Since her return she had lost about five pounds and her chief complaint when she came in was tenderness in the epigastrium. There was a slight tremor, skin was hot and the eyes had staring expression. The thyroid was not enlarged. The Pulse ranged from 96 to 120, weight 125 pounds, and on April 26, 1920, metabolism was 157 per cent. Under the usual treatment the metabolism had fallen on June 8th, 1920 to 138 per cent., the pulse to 88, and the weight had increased eight (8) pounds. By July 24th, 1920, the weight had increased another six (6) pounds, but she then had an acute tonsilitis and her hyperthyroidism returned. The tonsils were removed and on Aug. 16th, the pulse was 120, the weight had decreased seven (7) pounds, the tremor had returned.

To illustrate the control of treatment by metabolic estimations we have Miss H., age 24, who complained on March 16th, 1920, of nervousness and palpitation. The thyroid was hard and generally enlarged, pulse rate 120, there was a marked tremor, perspiration and considerable loss in weight. The blood count was 58 per cent., polymorphs, and 42 per cent. lymphocytes. On March 18, the pulse ranged from 132-148, temperature was 98.4, weight 107 and metabolism 164 per cent. Under bi-weekly irradiation, and rest, the metabolism fell to 150 on April 5th, the pulse was 144, and weight increased five pounds. On April 26th, following the fifth irradiation, the metabolism was 135 per cent., pulse 120, and weight had increased another 3½ pounds. One June 19th, metabolism was 128 per cent., pulse 112 and weight 120 pounds, a total gain of 13 pounds. There had been many carious teeth, which were extracted at this time, and on Aug. 2, 1920, metabolism was 100 per cent., pulse 84 and weight 120 pounds.

Mr. B. had had two resections of the thyroid

previous to which his metabolism had been 161 and 144 per cent. respectively. About a year later, Dec. 20th, 1919, the metabolism was 140, pulse 96, weight 127. Under sedatives and restricted activity, he showed little change during the next two months, metabolism being 134, pulse 96 and weight 130 on Feb. 27th, 1920. On April 15th, 1920, following two irradiations, and absolute rest in California his metabolism had fallen to 103 per cent., pulse to 76 and he had gained eighteen (18) pounds in weight.

Whatever may be said for or against the necessity of basal metabolism measurements, it is apparent that through them we have learned a great deal about hyperthyroidism that we previously did not know, and we are better able to pick out those cases that will respond to medical treatment, and those that demand surgical intervention. A great many cases of hyperthyroidism are secondary to ovarian, tenticular or hypophyseal dysfunction, some are directly due to infections or the continued absorption of toxic material, while others are undoubtedly physiological, the result of strong emotional influences, the demands of puberty, gestation, lactation and the like. The folly of surgical interference in any but the fulminating cases, and such other cases passed intractable to medical treatment, must be apparent. On the other hand, it may be that many of the cures reported under medical treatment may be due to the natural remissions, which are well known to occur even in the most toxic cases and which are often very striking. Until we shall have been able to follow our patients for a period of five years following their discharge, we can draw no accurate conclusions as to the propriety of any one form of treatment in a given case.

FOCAL INFECTION.*

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The subject which I am about to discuss is one of the most important topics in present day diagnosis and treatment, namely focal infection.

We may have a focus or foci of infection in any of the following organs, namely: the teeth, tonsils, sinuses, gall bladder, lungs, colon, rectum, ovaries and adenexia, ear, appendix, muscles, etc.

The anatomical parts to be discussed in detail will be the teeth.

*Read before Muskegon County Medical Society and the Muskegon County Dental Society December, 1919.

ETIOLOGY.

Infected teeth are generally resultant from lack of proper prophylaxis, and from the devitalization of teeth. Impaction and imperfect occulsion are etiological factors to be considered in numerous cases.

Plumbism and other occupational diseases, and syphilis should be considered in searching for the etiology.

That Endomoeba Buccallis is not a causitive factor has been conclusively proven. It is rather a scavenger that thrives in the pools of pus around infected teeth.

PATHOLOGY.

In pyorrhea the infection is generally primary at the gigival margin, and on tooth surfaces. The tooth surface infection may be microscopic, or it may be necessary to use a disclosing stain to clearly demonstrate these bacterial plagues.

Streptococcus salivarious or streptococcus viridans as it is now commonly called, is a constant habitat of the oral cavity from the age of six hours until death. Staphlococcus, Streptococcus, haemolitieus, pneumococcus, yeasts and moulds are transitory habitants

Duke (1) has shown that a latent focus in one part of the body may be activated or inhibited by an acute infective process, He has cited cases of latent and apparently cured tuberculosis, which ran fulminating courses following an acute tonsillitis or an acute abscess of a tooth. He has shown that some cases of neuro-syphilis and tabes-dorsalis, which did not respond to intensive anti-syphiletic treatment were returned to their former occupations after the removal of infected tonsils, or the removal of one or more infected teeth.

Novitzky (2) states that "In hundreds of devitalized teeth there was not one, which, six months after devitalization did not show unmistakable evidence of infection."

Brown and Irons (3) failed to find one case in 100 of Iritis in which focal infection was absent and concluded that intestinal toxemias were due to the same focal infection as was the Iritis.

A focus of foci of long standing may immunize to a greater or lesser degree against the organisms that are harbored by the individual.

This antogenous vaccination, as it were, is an unstable and unreliable element of protection against acute infective invasions. The resistance of the individual is lowered because of the fact that the latent septic processes are omnipresent and bacteria and toxins are constantly thrown into the blood stream. Hence in low-

ered resistance, the bacteria are prone to, sooner or later, find an organ which is below par, and an arthritis, heart lesion, appendicitis, etc., may be the result.

Rosenou, Novitzky and others have demonstrated that streptoeoecus viridans is present in practically every apieal abscess in whieh the eitological factor has been the devitalization of teeth.

Occasional apical infection may result from improper root canal filling, so ealled, but when we find infeetion within a period of six months in practieally every devitalized tooth, regardless of the fact that the root canal has been aseptically or antiseptieally filled and some canals having been "checked up" with the X-ray in the course of filling. What is the answer? Do you honestly believe it possible to devitalize teeth and without a scruple turn these patients out of your office with teeth that are within a short period of time hazardous to their general health? A beautiful erown or bridge is plaeed on dead abuttments and then in turn infective processes are harbored under the erowns or around the shaft and apex of the supporting elements.

A devitalized tooth is a dead tooth and a dead tooth is a foreign body. Southwell (4) has been unable to diffuse fluids through the cementum by strong air pressure. Granting (7) for the sake of argument that a ehain of vascularity exists between the pulp and cementum is not this chain broken when the pulp is extirpated? Beeause of the fact that a devitalized tooth may be sensitive and because calcarious matcrials are deposited on the root, is not an argument that the tooth is vital. It has been demonstrated that this sensitiveness is apical only and that the same sensitiveness may be elicited when a brooehe is very gently passed to the floor of the root canal after the nerve is killed. The ealcarious deposits are some of the end produets of a great effort on the part of the blood stream and tissues to throw off the foreign body.

Novitzky (5) states that "No evidence has been introduced to prove that a devitalized tooth is not dead."

The infection in dead teeth reaches its destination through the hematogenous route in the majority of instanees while others infect by direct extension.

Rosenou (6) has demonstrated baeterial transmutation in mouth infections. He has also shown that when bacteria isolated from an abscessed pulp of a patient who was suffering from extreme nervousness and myositis, was injected into animals, 71 per cent. developed myositis, 50 per cent. developed dental pulpitis and 46 per cent. developed neuritis, chiefly of the dental nerves.

DIAGNOSIS AND TREATMENT.

Incipient pyorrhea is generally demonstrated by gingival irritation, redness and sensitive dentine, pus may or may not be expressed by pressure on the gingival border. Pus poekets may be hidden under apparently healthy gums.

The pieture in advaneed pyorrhea in which the gums are trophied, the bone neerotie and the teeth bathed in pus, are familiar to all.

Dead teeth generally eause no pain or perceptible local disturbance. The X-ray is valuable, although not always a reliable aid, in searching for foei in the teeth.

All diseases have a distinct and underlying etiologieal faetor which produces the pathologieal process. Although the etiology in some diseases are unknown, in a large number of chronic ailments the cause may be found and removed. It is "Back-Woods Medieine" to feed drugs to patients week in and week out, and not make a great effort to find and remove the causative factors. Drugs are indieated for tonic effect and autogenous vaccines may be useful in raising the resistanee before and after the cause is removed.

The treatment evolves itself into a few short statements. The dead teeth should be x-rayed to determine the extent of the infection, also to ascertain the amount of bone pathology. Pyorrhea teeth should be x-rayed to determine the extent of the involvement of the adjaeent struetures. All dead teeth should be extracted surgically. In pyorrhea, if the infection extends to the apex, and if the caneellous tissues show marked necrosis, these teeth should be sacrificed. Moderately advaneed pyorrhea responds to treatment in the hands of dental surgeons who are especially trained in instrumentation. Drugs as a curative agent alone are not indicated. Aeeording to Carr and others, the removal of bacterial plaques, calcarious deposits and necrotic bone by careful planing (not scraping) combined with massage of the gums and instructions in oral hygiene, eliminates a large majority of moderately advaneed pyorrhea infeetions.

Foeal infection may cause any of the following illnesses: appendieitis, rheumatism, hypo and hyper thyroidisin, neuralgia, iritis, cholecystitis, acne, gastric ulcer, hepatic abscess, valvular lesions, endocarditis and numerous other troubles.

Case	Sex	Age	Condition	Mouth	Treatment	Result
1	Male	58	Neuritis-left arm 2 yrs. Vascular tension S, 170-D. 90.	3 abscessed teeth.	Extraction and curretment.	No improvement in 2 mos. symptoms disappeared after rectal fistula was excised.
2	Female	35	Chronic Appendicitis—Duration 1 year.	4 dead teeth, foul pus & detritis expressed from bridge abutments	Bridge removed.	Pain relieved in 2 days. Extraction of abscessed teeth advised. Teeth extracted. No recurrance in one year.
3	Male	49	Nephritis - Serosis - Incompensated heart—Vasc. Tension S. 200—D. 120.	5 abscessed teeth 11 pyorreaic teeth.	Patient went to his home in Detroit.	Hemi-Plegia 2 Mos. later.
4	Female	40	Pains in neck and severe headaches. Soft tumor mass right breast.	6 abscessed teeth Pyorrhea of 4 teeth.	Extraction and curretment of abscessed teeth Pyorrhea eliminated	2 months later; tumor disappeared also pains, general health fine.
5	Female	37	Intermittent severe pains in neck and parietal region—Duration 1 yr. Insomnia.	1 abscessed tooth.	Extraction and curretment.	Slept well the first night. Pains disappeared in 12 hours. No recurrence in 2 years.
6	Female	35	Intermittent neck pains and Insomnia. Jan. 1919.	1 abscessed tooth & poorly fitting bridge.	Bridge removed & 1 tooth extracted.	No recurrence to date.
7	Male	60	Chronic Non-articular Arthritis. Rt. knee. Duration 7 yrs. Pain & limping. Weight 130 lbs.	5 abscessed teeth.	Extraction & curretment 5 teeth.	Pain relieved in 3 days. Gained 20 lbs. in 3 mos. "Feels like a new man."
8	Male	54	Facial neuralgia—Chronic Gastritis—Loss of weight, Face wrinkled & emaciated.	5 abscessed teeth & Pyorrhea.	5 teeth extracted & curetted. Instrumentation of Pyorrhea.	Pain relieved in 2 weeks, also gastritis. Gained 20 lbs. in 6 wks. Wrinkles disappeared.
9	Female	27	Extreme nervousness and frontal headaches. "Tired at all times."	3 abscessed teeth.	Extraction and curretment.	Gained 18 lbs. in 3 mos. States she "Has no more nerves."
10	Female	31	Pains in legs, neck and parietal region—Irritational at all times.	Bacterial plaques 2 abscessed teeth & infected tonsils.	2 teeth extracted Bacterial plaques removed.	Condition cleared up. Tonsils subsided. No recurrence 2 years.
11	Female	33	"Tired at all times." P. M. temp. (101) for 3 yrs. Medicinal treatment gave temporary relief. Chest X-ray shows tubercles in left lung. Diag. T. B. Sputum, Positive.	3 dead & infected teeth.	3 teeth extracted & sockets curretted.	30 days later temp. 100, 60 days temp. normal. Tubercles healed in 90 days.
12	Male	36	Arthritis both knees Tuberculin Test, Positive (3 yrs. ago). Present date 1916; Tubercular testicle removed in 1913; Lung X-ray shows incipient T. B. in 1916.	Marked Pyorrhea.	Instrumental treatment of pyorrhea.	Arthritis cleared in 3 mos. Lung X-ray shows healed tubercles in 6 mos.

CONCLUSION.

Infected teeth are not the etiological factor in every chronic ailment, but they should not be overlooked as a factor in numerous diseases.

Ruthless and reckless extraction should not be advised.

A careful examination and history is necessary to render the best service to the patient.

Syphilis and chemical toxemias should be eliminated or sought after as concomitant factors.

Good teeth should not be sacrificed; and by good teeth I mean teeth that are not hazardous to retain.

Every dead tooth after a period of a few weeks or months becomes infected and it then

is a hazard, hence they should be sacrificed.

All teeth that are suspected should unreservedly be checked by the X-ray before they are extracted.

No articicial denture should be anchored to dead teeth.

Foci of infection should be sought after in other parts of the body.

An acute infection may activate or inhibit latent foci in other parts of the body.

Focal infections may or may not cause local manifestations.

Moderately advanced pyorrhea is generally cured by proper instrumentation and drainage.

Major operations would decrease 50 per cent. if the majority of the population would have their mouths "cleaned up" of infections and if dental prophylaxis is generally accepted and adopted.

A temporary hardship is thrust upon our dental colleagues by asking them to discontinue devitalization, but eventually they will be more than pleased and reimbursed through the advent of preventible dentistry.

This will mean, theoretically that the public will make appointments with their dental surgeon at definite intervals for an oral examination, the filling of small cavities, instruction in oral hygiene.

The accompanying table gives a few selected case histories.

BIBLIOGRAPHY.

1. Duke, W. W.: Multiple Infections, Jour. A.M.A., Nov. 23, 1920, Vol. 71, page 1703.
2. Novitzky, J: Dead Teeth, Am. Jour. of Surg., Feb., 1919.
3. Brown & Irons: The Aetology of Iritis, Jour. Amer. Oph. Soc., 1916, page 495.
4. Southwell: From Noyes Dental Histology, pg. 179.
5. Novitzky, J: Dead Teeth, Amer. Jour. of Surg., Feb., 1919.
6. Rosenow: Elective Localization of Bacteria in Diseases of the Nervous System, Amer. Med. Assoc. Meeting, Detroit, June, 1916, Section on Medicine.
7. Novitzky, J: Dead Teeth, Amer. Jour. of Surg., Feb., 1919.

Life insurance companies are in position to appreciate the value of vaccination, animal experimentation and other public health measures in prolonging of human life. Recently several large insurance companies created an "Association of Life Insurance Medical Directors" to keep in touch with the agencies at work in various states to secure and retain laws and measures which are clearly in the interests of public welfare. This association rendered excellent service in California recently in helping to defeat bills to abolish vaccination, animal experimentation, etc., which had been submitted to public vote.

The four so-called "medical measures" voted on in California at the recent election were all defeated. The proposed antivivisection bill was overwhelmingly defeated. The antivaccination measure and the bill for the creation of a separate chiropractic board were voted down and the efforts of the osteopaths to secure the right to prescribe drugs were defeated. This is one of the first instances in which medical questions have been submitted to popular decision.

It is reported that Mr. John G. Bowman, formerly for three years president of the State University of Iowa and since 1914 director of the American College of Surgeons, has been elected chancellor of the University of Pittsburgh. He succeeds Dr. Samuel Black McCormick who has resigned because of ill health.

A report from the medical department of Johns Hopkins University states that beginning in September 1921, at least two years of college work in chemistry will be required, of which one and one-third years must be devoted to inorganic and two-thirds to organic chemistry. Each year's work should consist of three didactic periods per week and five or six hours of laboratory work. This is the minimum requirement and three full years in chemistry are advised, including lectures and demonstrations in elementary physical chemistry. After 1923 the three years' course will be required, consisting of 240 hours of class work and 500 hours of laboratory work. The former must include 60 hours in organic chemistry and a short course in physical chemistry. The latter must include one year's work in quantative analysis and 120 hours in organic chemistry.

The centennial celebration of the foundation of the Medical College of the University of Cincinnati, held November 6, was the occasion for elaborate exercises which were attended by many leaders in the medical and educational world. Sir Auckland Geddes, British Ambassador, Hon. John Payne, Secretary of the Interior, Dr. James R. Angell, President of the Carnegie Corporation, and Dr. Charles R. Stockard, Cornell University, delivered formal addresses at the banquet given at Hotel Sinton. Honorary degrees were conferred on twenty physicians and scientists, including Drs. Joseph Ransohoff and Louis Schwab of Cincinnati. A life-size portrait of Dr. Christian R. Holmes, former dean of the college, was unveiled in the Holmes Memorial Library in the course of the anniversary exercises.

Official Minutes

of the

Mid-winter Meeting of the Council

Detroit, January 13 and 14, 1921

The regular mid-winter meeting of the Council was held in Detroit, pursuant to official call, on Jan. 13, 14, 1921. The first session was called to order at 8:00 p. m., on the 13th with Chairman W. J. Kay, presiding and the following members present: Jackson, Church, Toles, Seeley, McLurg, Parks, Randall, Keifer, DuBois, Buckland, Dodge, President Angus McLean and Secretary-Editor, F. C. Warnshuis, Chairman of the Medico-Legal Committee F. B. Tibbals. By invitation the Chairman of the Civic and Industrial Relationship Committee, Dr. Frothingham, and the Wayne County Medical Society Legislative Committee were present.

The Secretary-Editor rendered his annual report:

SECRETARY-EDITOR'S ANNUAL REPORT.

To the Chairman and
Members of the Council.

Gentlemen:

Submission is hereby respectfully made of my annual report as Secretary-Editor for the year nineteen hundred twenty. In its consideration the reminder is advanced that you take cognizance of the fact that our Society in conjunction with every other business, fraternal, trade and professional organizations, has and still is passing through a period that is fraught with varying currents of instability, increased costs and labor conditions that impelled unusual conditions with ever threatening uncertainties. We feel that this has been the most crucial year of our organizational existence. We are also of the opinion that the year we are just entering upon will present a shifting state of affairs that will tax our resources and ingenuity before we reach a solution of its problems and establish a policy that will represent a stability productive of renewed prosperity.

FINANCIAL STATEMENT.

I submit the following financial statement, duly audited and attested by a certified accountant:

January 7th, 1921.

To the Council of the Michigan
State Medical Society,
Doctor F. C. Warnshuis, Secretary,
Grand Rapids, Michigan.

Gentlemen:

We have completed our audit of the books of account and record of the Michigan State Medical Society for the year ended December 31st, 1920 and submit herewith our report.

Included as part of this report is statement of income and expense, setting forth the results of the Society's financial transactions for the year ended December 31st, 1920, of which the following is a brief summary:

JOURNAL INCOME.

Subscriptions, Reprints, Sale of Adv. Space, Etc.	$11,259.77	
Less: Journal and Reprint Expense	12,843.06	
Loss on Journal Publication		$1,583.29

DUES AND OTHER INCOME.

Membership Dues, etc.	$3,357.03	
Less: Annual Meeting, Society Expense, etc.	4,493.33	
Excess of Society Expense Over Dues, Etc.		1,136.30
Net Loss for the Year		$2,719.59

Balance Sheet setting forth in detail the Assets and Liabilities of the Society as of the close of business December 31st, 1920 is included in and made a part of this report, subject to the following comments:

Cash on deposit was verified by direct correspondence with the Grand Rapids Savings Bank, the balance reported by the bank being in agreement with the book records.

All recorded cash receipts for the year ended December 31st, 1920 were traced directly into the bank deposits and all recorded cash disbursements for the same period were found to be supported by officially signed cancelled bank checks.

Securities owned aggregating $7,800.00 as shown in detail on the Balance Sheet, were submitted to us for inspection by your Treasurer, Doctor D. Emmett Welsh.

No consideration has been given in the preparation of our report to the prepaid or accrued subscriptions and dues, it being our understanding that it is the policy of the organization to include these items in Income in the period in which they are received.

Under the caption of Current Liabilities shown in this Balance Sheet, in the aggregate amount of $2,575.72, provision has been made for all ascertained liabilities of the Society at December 31st, 1920 for Unpaid Expenses, Defense Fund Collections, etc., disclosed by the records examined and information obtained by us.

We hereby certify that we have audited the books of account and record of the Michigan State Medical Society for the year ended December 31st, 1920, as kept by your Secretary-Editor, Doctor F. C. Warnshuis, and that, in our opinion, based upon the records examined and information obtained by us the accompanying Balance Sheet is drawn up so as to set forth the correct financial position of the Society at the close of business December 31st, 1920, and that the relative operating statement is correct.

Very truly yours,

Signed: Ernst and Ernst.

BALANCE SHEET

Michigan State Medical Society

As of the close of business December 31st, 1920.

ASSETS

Current—		
Cash		
Grand Rapids Sav. Bank	$ 823.51	
Accounts Receivable		
Due from Subscribers, Advertisers, etc.	725.34	$1,548.85
Securities Owned—		
Liberty Loan Bonds	$3,500.00	
Citizen's Telephone Company Bonds	2,000.00	
Masonic Temple Bonds	2,300.00	$7,800.00
		$9,348.85

LIABILITIES.

Current—		
Accounts Payable		
Unpaid expenses, etc.	$2,233.72	
Due to Defense Fund	342.00	$2,575.72
Net Worth—		
Balance—January 1, 1920	$9,492.72	
Less: Net Loss for year 1920	2,719.59	$6,773.13
		$9,348.85

INCOME AND EXPENSE

Michigan State Medical Society

For the year ended December 31st, 1920.

INCOME

Journal Subscriptions:		
Members	$4,577.22	
Outside	25.50	$4,602.72
Advertising Sales		5,310.41
Reprint Sales		1,345.64
Sale of Extra Journals		1.00
Membership Dues		2,973.25
Interest Received (Net)		383.78 $14,616.80

EXPENSE

Journal Expense	$11,321.05	
Reprint Expense	1,522.01	
Society Expense	2,049.17	
Annual Meeting Expense	1,367.33	
Expense of Delegates to A. M. A.	774.26	
Council Expense	222.13	
Campaign Expense	40.87	
Secretary's Expense	24.20	
Regional Clinics	15.37	17,333.39
NET LOSS		$2,719.59

EXPENSE OF DELEGATES TO A. M. A.

Doctor J. D. Brook	$195.73	
Doctor Guy L. Connor	191.44	
Doctor A. W. Hornbogen	199.36	
Doctor F. C. Warnshuis	187.73	$ 774.26

COUNCIL EXPENSE

Doctor W. H. Parks	$ 32.42	
Doctor W. T. Dodge	20.75	
Doctor W. J. DuBois	23.96	
Doctor Frank Holdsworth	25.54	
Doctor D. Emmett Welsh	17.12	
Doctor S. K. Church	11.60	
Doctor J. B. Jackson	16.24	
Doctor F. C. Warnshuis	21.58	
Dinner	34.32	
Clerk	18.60	$ 222.13

SECRETARY'S EXPENSE

Kalamazoo before Annual Meeting	$ 4.00	
Kalamazoo, Annual Meeting	11.45	
Bay City	8.75	$ 24.20

ANNUAL MEETING.

Registration	$ 30.00	
Burdick Hotel	140.55	
Memorial Tablet	272.34	
Pins and badges	311.16	
Freight and drayage on pins, programs, etc to Kalamazoo for Annual Meeting	2.05	
Signs	6.50	
Programs	261.39	
Reporting Annual Meeting	384.29	
Churches, Y. M. C. A. and Signs	185.00	
Dr. W. E. Dandy, guest	74.80	
		$1,668.08

Council members refund on dinner	$ 50.75	
Exhibitors	250.00	
	300.75	$1,367.33

JOURNAL EXPENSE, 1920

JANUARY—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	15.00	
Detroit Clipping Bureau	5.32	
Taylor-Strom Typewriter Co., plates	5.22	
J. S. Crosby & Co., insurance	3.00	
Dr. D. E. Welsh, honorarium	100.00	
Tradesman Company, wrappers and insert	112.14	
A. Wertz, salary	40.00	$ 415.68
FEBRUARY—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	12.00	
Taylor-Strom Typewriter Co., plates	6.48	
Barlow Bros., binding Journals	16.50	
A. Wertz, salary	40.00	$ 209.98
MARCH—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	5.00	
Tradesman Co., Journals—Jan. and Feb.	1,068.08	
A. Wertz, salary	40.00	$1,248.08
APRIL—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	25.00	
Detroit Clipping Bureau	11.36	
Tradesman Co., March Jour.	536.65	
A. Wertz, salary	40.00	$ 748.01
MAY—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Doctor Guy L. Connor, salary	50.00	
Detroit Clipping Bureau	4.36	
Taylor-Strom, plates for addressograph	21.81	
Tradesman Co., April Journals	497.94	
Postmaster, mailing Journals	15.00	
A. Wertz, salary	40.00	$ 714.11
JUNE—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	15.00	
Taylor-Strom, addressograph plates	6.90	
Detroit Clipping Bureau	8.52	
Tradesman Co., May Journals	598.34	
A. Wertz, salary	40.00	
Tradesman Co., June Journals	567.24	
Detroit Clipping Bureau	7.92	$1,378.92
JULY—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	15.00	
Bixby Office Supply Company	.40	
Taylor-Strom, addressograph plates	3.51	
Detroit Clipping Bureau	6.08	
Tradesman Co., July Journal	1,160.93	
A. Wertz, salary	40.00	$1,368.42
AUGUST—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	15.00	
Tradesman Co., Aug. Journals	797.63	
Miss DeWitt	40.00	$ 995.13
SEPTEMBER—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	15.00	
D. D. Spellman, picture of Dr. Carstens	.50	
Detroit Clipping Bureau	7.68	
Bixby Office Supply Company	.50	
Miss DeWitt, salary	40.00	$ 206.18
OCTOBER—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	15.00	
Detroit Clipping Bureau	7,16	
Tradesman Co., Sept. Journals	533.66	
Miss DeWitt, salary	40.00	$ 738.32
NOVEMBER—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	15.00	
Western Union Telegraph Co.	2.06	
Taylor-Strom Typewriter Co.	9.45	
Tradesman Company	86.87	
A. Wertz, salary	40.00	$ 295.88
DECEMBER—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Doctor Guy L. Connor, salary	50.00	
Postmaster, mailing Journals	15.00	
Tradesman Co., Oct. Journals	672.75	
Taylor-Strom Letter Co.	4.50	
Detroit Clipping Bureau	6.52	

E. Ford, salary	40.00	
Detroit Clipping Bureau	10.72	
Tradesman Co., Nov. and Dec. Journals	2,110.35	$3,002.34
		$11,321.05

SOCIETY EXPENSE, 1920

JANUARY—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Postmaster, mailing certificates	25.00	
Postmaster, office postage	5.00	
Bixby Office Supply Company	6.03	
Powers-Tyson Printing Co., letter heads	30.75	
Western Union Telegraph Co.	2.02	
J. S. Crosby Insurance Co.	3.00	
A. Wertz, salary and postage	45.00	$ 201.80
FEBRUARY—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Postmaster, office postage	5.00	
Western Union Telegraph Co.	2.45	
Bixby Office Supply Company	1.55	
A. Wertz, salary	40.00	$ 134.00
MARCH—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Postmaster, mailing certificates	25.00	
Postmaster, office postage	10.00	
Bixby Office Supply Company	1.80	
Western Union Telegraph Co.	.38	
Michigan State Telephone Co.	.55	
A. Wertz, salary	40.00	$ 162.73
APRIL—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Postmaster, mailing certificates	25.00	
Western Union Telegraph Co.	5.34	
J. A. Thompson Typewriter Co.	.85	
United Weeklies	17.25	
Bixby Office Supply Company	6.78	
A. Wertz, salary	40.00	$ 180.22
MAY—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Bixby Office Supply Company	4.00	
Michigan State Telephone Co.	1.95	
Western Union Telegraph Co.	3.28	
Postmaster, office postage	5.00	
A. Wertz, salary	40.00	$ 139.23
JUNE—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	10.00	
Taylor Typewriter Company, Neostyle	72.60	
Bixby Office Supply Company	1.90	
Powers-Tyson Printing Co.	7.85	
Postmaster, office postage	10.00	
W. H. Shultus, auditing books	24.00	
J. A. Thompson Typewriter Co.	.75	
Western Union Telegraph Co.	2.80	
Dwight Brothers Paper Co.	16.55	
Bixby Office Supply Company	5.80	
Taylor Typewriter Store	8.00	
A. Wertz, salary	40.00	$ 275.25
JULY—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Postmaster, office postage	10.00	
Michigan State Telephone Co.	.55	
Western Union Telegraph Co.	.35	
Powers-Tyson Printing Co.	9.30	
A. Wertz, salary	40.00	$ 152.70
AUGUST—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Postmaster, office postage	10.00	
Powers-Tyson Printing Co., letterheads	61.65	
E. Higgins, book	1.50	
Bixby Office Supply Company	2.40	
Western Union Telegraph Co.	.88	
Miss DeWitt, salary	40.00	$ 208.93
SEPTEMBER—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Postmaster, office postage	10.00	
Bixby Office Supply Company	1.20	
Western Union Telegraph Co.	.80	
Miss DeWitt, salary	40.00	$ 144.50
OCTOBER—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Postmaster, office postage	10.00	
Western Union Telegraph Co.	1.20	
Bixby Office Supply Company	3.95	
Tisch-Hine Company, ledger	26.25	
Miss DeWitt, salary	40.00	$ 173.90
NOVEMBER—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Postmaster, office postage	10.00	
J. A. Thompson Typewriter Co., ribbons	10.00	
Bixby Office Supply Company	4.00	
Western Union Telegraph Co.	.63	
A. Wertz, salary	40.00	$ 157.13
DECEMBER—		
Doctor F. C. Warnshuis, salary	$ 75.00	
Doctor F. C. Warnshuis, rent	17.50	
Postmaster, office postage	10.00	
Taylor Typewriter Store	.25	
Bixby Office Supply Company	.85	
Western Union Telegraph Co.	.83	
Powers-Tyson Printing Co.	24.35	
E. Ford, salary	40.00	$ 168.78
		$2,099.17
Charge off outstanding check	50.00	
		$2,049.17

The incurred loss of $2,719.59 for the year is at first thought staggering and reason for critical interrogation. The final summarization, however, will reveal an explanation that is self apparent. There will also at once present the need of establishing a restricted policy of appropriations in order that our expenditures shall not exceed our revenues.

To reveal this condition I submit the following comparative statement:

	1919	1920	Loss	Gain
Bond Account	$4,300.00	$4,300.00	$	$
Liberty Bond Acct.	3,500.00	3,500.00		
Checking Acct.	925.78	823.51	102.27	
Accts. Receivable	794.69	725.34	69.35	
Advertising Sales	3,545.32	5,310.41		1,765.09
Membership Dues	2,276.25	2,973.25		697.00
Reprint Sales	527.48	1,345.64		818.16
Interest Received	389.00	383.78	5.22	
Outside Subs'ptions	30.62	25.50	5.12	
Journal Subs'ptions	4,045.53	4,577.22		531.69
Journal Expense	7,781.23	11,321.05	3,539.82	
Society Expense	2,943.59	2,105.41		838.18
Annual Meeting	503.19	1,367.33	864.14	
Council Expense	196.87	222.13	25.26	

Dissection of Income and Disbursements

SOCIETY

Greatest Revenue Possible			
Dues	$2,973.25		
Interest	383.78		
		$3,357.03	
Expenditures—			
Society Expense	$2,049.17		
Campaign Fund	40.87		
Regional Clinics	15.37		
Council Expense	222.13		
Annual Meeting	1,367.33		
Secretary's Expense	24.20		
Delegates to A. M. A.	774.26		
	$4,493.33		$4,493.33
Increased expend. over Receipts		1,136.30	
		$4,493.33	$4,493.33

JOURNAL

Greatest Revenue:			
Advertising Sales	$ 5,310.41		
Subscriptions	4,577.22		
Reprint Sales	1,345.64		
Sale of extra Journals	26.50	$11,259.77	
Expense —			
Printing, etc.	$11,311.33		
Reprint Expense	1,522.01		$12,843.06
Loss on Journal		$1,583.29	
		$12,843.06	$12,843.06

LOSS

Society	$1,136.30
Journal	1,583.29
Net Loss	$2,719.59

It thus becomes apparent that:

1. As a Society we are expending $1,136.30 more than our greatest possible income.

2. Our Journal is costing us by $1,583.29 more than we receive from subscriptions and advertising.

The problem thus presses, how may we best remedy these two conditions. I do not feel that it lies within my province to advance the avenues along which economy is to be practiced, inasmuch as it involves the policy, influence, and very existence of our Society. Such solution is conveyed by constitutional delegation to the Council and involves more than a computation of dollars and cents. We must concede that we do not exist solely for financial profit however desirable a profit may be over a stated deficit. Then too, as an organization, we have a definite responsibility that cannot be shirked or shifted to others, nor always mouldable so as to conform to the length of our purse strings. The harping critic may be expected to promptly pronounce that a policy of expending more than our greatest possible income is unsound. Again, he who computes solely in dollars and cents and ignores those other assets, those other inventories represented by our maintaining and enhancing the purpose for which we are organized and exist, and which are revealed in our Society activities—to him we can only submit our cold figures for constricted appraisal with the hope that he will recognize the non-financial profits that have been obtained.

We, therefore, request a full discussion of this problem and the formulation of a policy that will indicate wherein and how far we shall limit by financial restrictions this coming year's activities and not sacrifice that which has been attained. It is recognized that had the House of Delegates been requested to increase the dues for 1920 as they did for 1921 the year would have closed without a loss or profit. But who among us had the gift to prophesy the soaring cost prices of the past eight months? It is of no profit to mourn or decry the loss that has been incurred. Our chief and main concern is the future and it alone presses for your judicious consideration.

THE JOURNAL

During the year 576 pages of reading matter and 338 pages of advertising were printed. Our advertising revenue was $5,310.41 an increase over 1919 of $1,765.09 and the largest ever earned by our publication. The net earnings of the Journal were $11,259.77 and the net cost $12,843 06, thus creating a Journal loss of $1,583.29.

Number of Journals Printed.

January	2600	July	2800
February	2700	August	2900
March	2850	September	2850
April	2900	October	2875
May	2950	November	2900
June	2700	December	3025
			34050

The printing world has been a nightmare of soaring prices during the past seven months and this almost inconceivable rise began at a time when our printing contract expired. Diligent endeavor was made to obtain fixed and advantageous prices but to do so was impossible. With weekly and monthly increases in wages, paper and supplies, no publisher would tender a contract that was not amendable to change in price as market quotations indicated. We had no alternative but to accept the terms proffered and to incur our part of the expense entailed by prevailing conditions. Even now conditions are far from settled. On January 1st an additional increase of twenty per cent in paper was announced. We

believe that our contract for a year's supply of paper was wise and advantageous. We await an adjustment of labor's wage demands. Our contract entitles us to such benefit should any reduction in wage scales be accomplished.

In commenting upon the cost of our Journal we call attention to the fact that printing conditions created a necessity for a special meeting of the House of Delegates of the A. M. A. to increase the subscription of the Journal of the A. M. A. $1.00 per year in order that an impending loss of some $60,000.00 be avoided.

Our Journal, without an increase in subscriptions and considering trade conditions weathered the year with a loss of $1,583.29 in spite of the fact that cost of publication exceeded that of last year by $3,539.82. By diligent effort and continued alertness it was possible to obtain an increased revenue of $1,765.09.

The Journal has an envied position in the medical journalistic world—a precedence and a reputation of which we are justly proud. We feel that it is one of the foundation stones of our Society. At no time during the year's turbulency did we feel that we could afford to sacrifice its size, subject matter or appearance and retrench. We incurred, knowingly, the loss recorded believing that in doing so we were justified in thus supporting our publication's position.

We are, however, still midst troublesome times and the future is beclouded with diresome conjectures. We observe with increasing unrest and foreboding, certain reefs that threaten its financial condition. Advertising contracts are being cancelled by business houses in their policy programs. The reason given is failure to receive returns from their advertising copy in our publication. The meeting of this problem rests entirely with our members. Times innumerable have we pleaded and warned that to get advertisers was possible, but to hold them was extremely difficult; that patronage of advertisers was the only solution. Seemingly our implorement was in vain and passed unheeded. We are now directly faced with that problem and unless patronage is forthcoming our advertising revenue must and will dwindle. Instruction as to how best circumvent this reduction is requested. By reason of increased dues the Journal will receive during the coming year increased revenue of about $1,500.00. This will not equal a predicted deficit that will be evidenced in decreased advertising revenue. Our rates are standard and cannot be further increased.

We believe it but just to record the extraordinary work that the Journal has called for on the part of your editor in meeting the confronting difficulties. It was more than double that of other years and was infiltrated with many trying and disquieting moments.

We cannot be reconciled to limiting the features or value of our Journal. In fact we have the temerity to ask that you authorize a broadening of its scope by increase in size in order that we may include articles in each issue that will be of value and interest to every member regardless of his specialty or class of practice.

It is recommended that each Councilor nominate a correspondent from his district who will willingly assume the duty of sending in the news items and professional activities of his district. The purpose being to make the Journal a historical reference of professional life in Michigan for future utility.

SOCIETY ACTIVITY

I herewith submit, by counties, a record of our membership strength:

Alpena	23
Antrim-Charlevoix-Emmet	24
Bay-Arenac-Iosco	63
Benzie	8
Berrien	25
Branch	16
Calhoun	103
Cass	7
Cheboygan	8
Chippa-Luce-Mackinaw	24
Clinton	21
Delta	21
Dickinson-Iron	13
Eaton	22
Genesee	118
Gogebic	21
Grand Traverse-Leelanau	22
Gratiot-Isabella-Clare	40
Hillsdale	19
Houghton	51
Huron	15
Ionia	17
Ingham	93
Jackson	52
Kalamazoo	118
Kent	178
Lapeer	26
Lenawee	30
Livingston	6
Macomb	27
Manistee	15
Marquette-Alger	40
Mason	4
Mecosta	15
Menominee	9
Midland	0
Monroe	25
Montcalm	17
Muskegon-Oceana	57
Newaygo	10
Oakland	56
O. M. C. O. R. O.	10
Ontonagon	8
Osceola-Lake	4
Ottawa	32
Presque Isle	0
Saginaw	66
Sanilac	17
Schoolcraft	7
Shiawassee	29
St. Clair	50
St. Joseph	26
Tri	23
Tuscola	25

Washtenaw	89
Wayne	1012
	2875

On January 1st, 1920 we had 2642 members. The above reveals our membership on January 1st, 1921 as 2875, a net gain of 233. Twenty-nine deaths occurred during the year. There were 323 members dropped by reason of removals and non-payment of dues, thus making a total membership gain for the year of 585. We have at present the largest enrolled membership in the history of our Society.

The following county societies, according to our records held no meetings during the year—Chippewa-Luce-Mackinaw, Livingston, Mason, Midland, Osceola-Lake, and Presque-Isle. The Councillors in whose districts these societies are located must be consulted as to what action shall be taken in regard to them.

The following members are recorded as having responded to their last call:

Doctor W. J. Herrington	Bax Axe
Doctor Bruce R. Leighton	Kalamazoo
Doctor Philip G. Sanderson	Detroit
Doctor Leon B. Harris	Saginaw
Doctor James Fraser	Lexington
Doctor Miles Bristol	Bay City
Doctor Benjamin Brodie	Detroit
Doctor E. A. De Camp	Flint
Doctor Stanley Insley	Grayling
Doctor Christian Schneider	Cross Village
Doctor C. MacLaughlin	Elwell
Doctor G. Campbell	Detroit
Doctor A. E. Greene	Lansing
Doctor W. T. Lungerhausen	Mt. Clemens
Doctor W. C. Bell	Detroit
Doctor E. P. Partlow	Constantine
Doctor J. D. McEachron	Vermontville
Doctor H. J. Carstens	Detroit
Doctor Victor Sisung	Monroe
Doctor H. Beach Morse	Bay City
Doctor L. J. Locy	Davison
Doctor A. J. Hamlen	Detroit
Doctor S. J. Lukaszewski	Detroit
Doctor W. H. Niles	Marshall
Doctor W. R. Hicks	Menominee
Doctor K. A. Kanzler	Saginaw
Doctor M. B. King	Flint
Doctro E. C. Kinsman	Saginaw
Doctor W. H. Baldwin	Coldwater
Doctor B. R. Schenck	Detroit

From the perusal of the above list there at once stands out the names of Doctor H. J. Carstens and Benjamin R. Schenck, former President and former Secretary-Editor. No eulogy of mine can record the summarization of all that they did toward elevating and inspiring the profession of Michigan, or the time and energy they expended to lay the foundation and make it possible for our Society to be what it is today. In all sincerity do we pay tribute to them and revere their memory.

SOCIETY ACTIVITY

We believe that our county societies are alert to the trend of events and stand ready to assume their part in the arena as soon as they are called upon to advance. It but remains for the proper officials and committees to determine the policy to be pursued and the campaign to be undertaken. It is not within my province to outline such a policy. Of this I am certain that with the organizational strength under command, by upright and concerted action undesirable projects and perpetrations that some seek to institute by state legislation can be defeated. Further, that we can also direct and obtain any legislation the majority of our members desire. If we but employ our potential powers and concentrate our efforts along proper channels we need have no fear as to the future. Our greatest danger lies in our placidity. The reveille must be sounded and our campaign must be pressed forward immediately.

Some diversified activity in regard to legislative matters has already manifested itself. We consider such activity with no little concern for the reason that unless it emanates from our state organization it is bereft of its most potential prestige. The need presents for uniform, centralized effort and attack. Individual or group initiative will but imply division and appearances that we are in disagreement amongst ourselves. It is imperative that we observe and profit by the advice given to our New York colleagues—"Doctors, go home and organize. Then come back and tell us what you all want and we will give it to you." There is much for reflection and guidance in that advice. Shall we not so act as to profit thereby?

REGIONAL CLINICS.

We respectfully refer you to the November Journal for the plans and recruited teams available for clinical meetings. Our bookings are increasing and the next five months will witness a large number of valuable scientific meetings. For the progress of this feature of society work we must refer you to the reports of these clinics as they will be published under County Society news in the Journal. The achievement thus far is indicative of the promising value of this State Society activity.

ANNUAL MEETING.

The House of Delegates designated Bay City as the place for holding our next Annual Meeting. It devolves upon the Council to select the dates upon which it shall be held.

OUR UNIVERSITY MEDICAL DEPARTMENT.

Our attention is called with increasing frequency to certain rumors and complaints regarding the activities and policies of the Medical Department of our State University, its faculty members and the University Hospital. We have attempted to establish the basis for such commentaries but have been unsuccessful. Our attitude has been that of a willing mediator in order that truth or untruth might be exposed. We realized that naught but harm and disruption would ensue were an alienation to take place between the profession of the State and the Medical Department's personnel. It has been more

than passing concern that these repeated charges are voiced but substantiating or generating facts are withheld. We felt it our official duty to suggest that a conference be held wherein the opportunity would be afforded for a frank discussion of policy and administration in order that misinterpretation be squelched. That opportunity likewise be given those who, if there are any, may present their grievances. To this end the President and Faculty of the Medical Department have arranged such a conference on the afternoon of January thirteenth. We urge that the Council attend in a body, or if that is impossible that a Committee of Councillors be appointed to be present at that conference.

Certain we are that no just reason can exist if a frank discussion of mutual interests be discussed and a basis of activity be outlined and its apparent and implied intent be recognized. We have ever considered and do now hold that it is inimical to our mutual interests if we permit a divorcement of our relationship and inter-communication to occur. We also feel that we would be negligent did we permit a rupture to result without having made honorable attempt to forestall such a dissention. Such has been our sole purpose and activity.

CONCLUSION.

In conclusion I wish to present and record my personal appreciation for your bestowed confidence and the many courtesies extended. Trying as are some of our problems and duties, I ever feel that I can never fully meet up to or counterbalance the trust and honor you bestow. I realize fully that this report is indefinite upon some and silent upon other features of our Society work. I am unable to make it otherwise because we are in a transitional state of world affairs. Civic, industrial, and social intercourse manifest such unstable tendencies that final appraisal and definite policies are made untenable over night. The horizon is still so beclouded that we are unable to prognosticate what the future holds in store. I am, perforce compelled to withhold specific and definite recommendations and conclusions. We cannot do otherwise but remain alert, make frequent reckoning of our bearings, and cause our activities to conform to the propelling changing forces under and by the aid of your collective advice, judgment and aid. To do so is the attitude that we cheerfully and appreciatively assume.

Respectfully submitted
F. C. Warnshuis, Secretary-Editor.

Chairman Kay referred the several sections of the report to the standing committees of the Council.

TREASURER'S REPORT.

The following report of the Treasurer, D. Emmett Welsh, was presented.

January 10, 1921.

To the Council of the
Michigan State Medical Society.

Gentlemen:

The following will convey to you the amount of funds of the Michigan State Medical Society in my hands for the year ending December 31st, 1920.

Citizens Telephone Co.	
Bonds No. 139 and 140	$2,000.00
Masonic Temple Bonds	
18—$100.00 Bonds No. 199 to 216 inclusive.	
5—$100.00 Bonds No. 225 to 229 inclusive	2,300.00
U. S. Liberty Bonds 1st Issue 3½%	
No. 8450	500.00
U. S. Liberty Bonds 2nd Issue 4¼%	
No. E 00018035	1,000.00
No. B 00015757	500.00
U. S. Liberty Bonds 3rd Issue 4¼%	
No. 1466140	1,000.00
No. 572985	500.00
Total	$7,800.00

The following will convey to you the amount of funds on hand in the Defense Fund for the year ending December 31st, 1920.

U. S. Liberty Bonds 2nd Issue 4¼%	
No. A 00015756	500.00
Balance in checking account at the Peoples State Bank at Detroit, Mich.	415.64
Total	$915.64

Respectfully submitted.
Treasurer, D. Emmett Welsh.

MEDICO-LEGAL COMMITTEE REPORT.

Chairman Tibbals of the Medico-Legal Committee submitted his report, regarding the activities of that committee.

Detroit, Mich., Jan. 3, 1921.

The Council,
Michigan State Medical Society.

Gentlemen:

The Medico-Legal Committee beg to report that 1920 was a successful year in all respects, especially from the financial standpoint. We were able to get through the year with the funds available and returned the loan of $1,000, made by the Council, without spending any of it.

The number of new cases reported is 22—maintaining the constant average of approximately one suit or threat for each 100 members of the State Society.

Beginning with 1921 another dollar per member goes into the Medico-Legal Fund, which may enable us to again accumulate a reserve. A surplus available for this fund is essential, because a bad year is always to be anticipated, a year in which an unusual number of cases reach trial or in which one or two cases prove very expensive. 1919 was such a year, where the annual retainer to our general attorneys and the expense of one suit took about all our income for the entire year.

During 1921 we have to re-try that case (Sinclair vs. Brunson) owing to a reversal in the Supreme Court. While we are not anxious as to the outcome, we are sorry to have to face the unexpected outlay. The Babcock case, ap-

pealed by us, during 1920 was won in the Supreme Court.

All other trial cases resulted in our favor.

The facts in the Brunson case are familiar to you, a charge of negligence in the care of an unusual case, where the true pathological condition was not recognized until the patient was taken to a Chicago surgeon, whose deposition stated the case to be one of Endarteritis Obliterans, a condition where no treatment avails except amputation above the point of obstruction.

The Supreme Court reversal must have been on some legal technicality, rather than on the medical facts presented.

Respectfully submitted,

F. B. Tibbals, Chairman.

These several reports were referred to standing committees.

The Council then went into informal session and discussion of organizational and professional problems were entered upon by Drs. Kennedy, Frothingham, Keifer, Toles, Dodge, DuBois, Kay, Jackson, Seeley, President Mc Lean, Church, Buckland and the Chairman.

It was moved by Councilor Dodge, supported by Councilor Seeley that the following resolution be adopted:

Resolved, that the Council recommends to the State Board of Education that it require, in the high and normal schools of the State, the teaching of hygiene, dietetics and preventative medicine; that all teachers in such schools be required to inform themselves upon the fundamentals of these subjects. That a committee of three be appointed by the President to cooperate with a similar committee from the State Board of Education.

Carried.

Moved by Councilor Toles, supported by Councilor DuBois, that it is the judgment of the Council that the profession lend its support to the bill introduced in our legislature providing for County Health Officers and that the bill be hereby aproved by the State Medical Society.

Carried.

Moved by Councilor DuBois, supported by Councilor Dodge, that the Council endorse the work accomplished and now being carried on by the Legislative Committee of the Wayne County Medical Society and recommends to the House of Delegates that it consider the advisability of adopting this plan in the interests of the profession of the entire State.

Carried.

SECOND SESSION.

The second session of the Council was held in the Wayne County Medical Society building on Jan. 13, 1921, at 8 a. m. The Chairman called the meeting together with the following Councilors present: Kay, Toles, Church, DeBois, Parks, Randall, Southworth, McLurg, Jackson, Buckland, Dodge, Seeley, President McLean and the Secretary-Editor.

Committee on Society work reported as follows:

That the councilors in whose districts county societies have not held meetings during the year be authorized to take whatever means seems best to re-awaken interest in these societies. In this connection it might be well to call the attention of these societies to the opportunities of securing good programs through the clinic teams recently organized by the State Society.

That councilors be asked to secure the active co-operation of their local societies in defeating the proposed legislation in regard to health insurance and medical fees and in supporting the bills proposed by the State Advisory Board of Health for providing free diphtheria antitoxin and for establishing a system of county health officers.

This should include personal interviews with and letters to local members of the State Legislature.

That the Council approves of the plan of regional clinics recently instituted and pledges its support for the further development of the plan.

That the dates for the next annual meeting of the Society at Bay City shall be May 24, 25 and 26.

That the report of the Medico-Legal Committee be accepted and that the Council hereby express its appreciation of the work of the Committee.

John B. Jackson,
J. Mc Lurg,
H. C. Randall.

Committee on Finance reported as follows:

The reports of the Secretary-Editor and Treasurer have been inspected and being certified to by Ernst & Ernst, public accountants, and we find them to be correct.

Your Committee recommends that the railroad fare of the delegates of the A. M. A. be paid, but that no allowance be paid them for hotel bills or other expenses.

We further recommend that the expense for badges for the annual meeting of the State meeting be limited to one hundred dollars.

We further recommend that there be no expenses allowed for invited guests at the annual meeting.

We would recommend that an honorarium of $100.00 be given D. Emmett Welsh, Treasurer for the past year.

Respectfully submitted,
W. T. Dodge,
S. K. Church,
W. J. DuBois.

Journal Committee reported as follows:

Your committee on Publication reports: That in view of the unsettled financial condi-

tions of the Country, publication expenses have been advancing and burdensome. In our opinion the maximum has been reached and we believe a reduction of prices may be anticipated so that in another year we may expect the Journal to be again self supporting. We therefore do not recommend any radical changes by way of increased dues, or advertising rates but rather to allow our resources to carry the burden during the stress of these unsettled conditions.

We recommend that no contract be made for publication until **stable conditions** prevail.

A. L. Seeley,
L. W. Toles,
R. S. Buckland.

The several Committee reports were adopted.

ELECTION OF OFFICERS.

Councilor DuBois nominated F. C. Warnshuis of Grand Rapids, as Secretary-Editor for the ensuing year. Supported by Councilor Mc Lurg.

Councilor Randall nominated W. H. Marshall, of Flint, for the same office.

Dr. Manwaring and Dr. De Kleine, of Flint, were accorded the privileges of the floor to support the nomination of Dr. Marshall.

Chairman Kay appointed Councilors Seeley and Randall as tellers.

The result of the ballot was:

Warnshuis .....11 votes
Marshall ..... 1 vote

Councilor Randall, supported by Councilor DuBois, moved that the election of F. C. Warnshuis be made unanimous. Carried.

Councilor Dodge, supported by Councilor Southworth, moved that the Secretary cast the ballot for D. Emmett Welsh as Treasurer. Carried and Dr. Welsh was declared elected.

Councilor Seeley, supported by Councilor Church, moved that each Councilor take steps to secure the appointment of correspondents to the Journal from his district. Carried.

It was the expression of the Council that the proposed revision of our Constitution and By-Laws be published in the Journal before the Annual Meeting.

Councilor Church, supported by Councilor Jackson, moved a rising vote of thanks to President McLean for his hospitality and splendid dinner entertainment.

President McLean addressed the Council.

Moved by Councilor Jackson, supported by Councilor Seeley, that the Secretary employ a stenographer to report the Conference Meeting to be held in Ann Arbor with the University officials. Carried.

The Council then adjourned.

F. C. Warnshuis, **Secretary.**

Conference Meeting Ann Arbor

STENOGRAPHIC REPORT OF THE CONFERENCE HELD WITH THE PRESIDENT OF THE MICHIGAN UNIVERSITY RELATIVE TO PROPOSED PLANS FOR ADMINISTRATION OF THE UNIVERSITY HOSPITAL.

Editor's Note: Upon proper advice we are imparting for our members' benefit part of the discussion that occurred during this conference. We wish it understood that the following is taken from the stenographer's unedited and unrevised notes. None of the copy has been submitted to the speakers quoted. We have not attempted to make any correction lest we be charged with changing a speaker's thought. We have omitted some of the remarks of some of the speakers because of lack of space. We are unable to publish the remarks of Dr. J. W. Vaughan because the stenographer had not submitted his copy at the time of going to press.

We realize the interest of the profession. Those who were not able to be present are anxious to know what was said. We feel we are giving them a fair insight to the drift of the discussion. Later we hope to give more complete information.

Dr. Peterson: It gives me pleasure to introduce President Burton of the University of Michigan. (Applause)

President Burton: Dr. Peterson and members of the Medical Profession. I want to begin by expressing to each one of you our very great appreciation of the response which you have made to our invitation to come here and discuss the program for the University Hospital. I think it will be not unappropriate for me to say to you that you are more welcome here at Ann Arbor and at the University of Michigan than possibly you can realize, for after all there is nothing that we appreciate quite so much as an opportunity such as this, to come in contact with the highly selected, representing we believe intelligence, public service and the desire to really be of value to every citizen of the State.

Now I am conscious with you that it is not possible for all of us ever to agree upon anything that is really fundamental and vital and the purpose of your coming is not to attempt to make

us all think alike about anything. When I was a teacher the kind of a student I liked best was the one who disagreed with me because I was pretty sure he thought he heard what I said, but at any rate there was evidence of interest and sincerity and a desire on his part to enter into the game that we desired to play. So I am not primarily concerned today about our agreeing on this thing, but I am concerned in our all coming if possible to a very clear understanding of the facts indicated in the programme with which we are dealing. This gathering was called specifically by the staff of the University Hospital without my knowledge and one day they sent one of their representatives to me and asked me if I would be willing to come and preside at the gathering of physicians and surgeons of the State called by the staff of the University Hospital and I said that presiding was my specialty, that if there was any one thing that I felt that I ought to be able to do, it was to preside and they inveigled me into accepting the invitation; at that time they said absolutely nothing about their desire that I should make a speech but gradually day by day there came whisperings from various sources that they thought perhaps when these distinguished men gathered it would be my duty as president, rather than their duty as members of the hospital staff, to tell you what our plans for the University Hospital and again they inveigled me into accepting the invitation and I am perfectly willing to admit to you that if a speech had to be made on any subject, I would rather make it than listen to it.

I do not come to you as a person who poses as a specialist in this field, as one who thinks he knows all that ought to be done in connection with the hospitals of America; I come to you as President of the University, as one whose only work in life with the exception of seven months, has been in educational institutions. I look at some of these problems not so much in their concrete form as in their relationship to the University, and to the State as a whole and the general organization we develop here. So our plans and purposes in this gathering, gentlemen and ladies, are these:

We want to discuss with you the problems of the University Hospital and it seemed to us that it would enable us to focus the discussion and get somewhere in our gathering this afternoon, if in the beginning I should make a brief statement in regard to our plans. Now for the purpose of our hospital staff, and those of you who are not physicians and surgeons will pardon me in saying this, I want to say to you that to me the most delightful and worthy man in the world is the medical man. I never expect to fathom the mysteries of the medical man, it is too great for me, yet I have the most profound respect for the medical profession and it has made more contributions to American educational institutions than any other type, unless it is the academic type. There is a little book entitled, "History on Education." If sometime you want to relieve your mind of some of the strain, I suggest you read this book. I have no doubt you have heard a great many times the incident of the colored parson who rose one morning before his congregation and said "there are just two ways to go, one is the bright wide and shining path that leads to destruction and the other is the straight and narrow path which leads to sure perdition." Whereupon Deacon Jones said, "Brethren if that am true, this member takes to the woods." I am brother Jones, I think sometimes this problem of education and democracy, and these problems of medicine, that we are headed for sure perdition and I often feel like taking to the woods.

Having said all that, I come back to tell you what I think about it. You know one of my pet sayings is that "life is too serious to be taken too seriously." That is the way I feel about this discussion this afternoon, I think it is altogether too serious to be taken too seriously. Now I don't want to say that with what I had termed the brutal frankness of the blood relative, the bloody frankness of the brute relative, I don't want to push it into you too far. I think we will get along better if we don't take it quite so seriously as I have seen some medical men.

After all this I want to say my speech has four main points. First, and I am speaking now not so much from the standpoint of the hospitals, as I am speaking from the standpoint of the University of Michigan. We are concerned today primarily with the University problem and of course that problem focuses in the University Hospital, but as I see the situation with which we are dealing with men and women, it is the function of this University so far as medicine is concerned, and particularly today in connection with this hospital, the function ranges principally in three or four directions. I think every person in the room would agree with me that our first task is to teach young men and women medicine and other things they need, to become practitioners and surgeons; we have a teaching function. Now you can expand that and say we also have application to the medical profession of the state, that is to say we ought to for the doctors of the state who care for it, and there is our teaching function.

I think you will agree with me too, we have a research function. I suppose there isn't anything that interests everyone of you more than what this university through its hospital is attempting to do for the expansion of knowledge, for a clearer understanding of the problems with which you deal. I think you agree with me that is one of the functions and also that the third function is the care of patients in our University Hospital. At any rate the representatives of the people in this state have laid upon us the necessity for caring of certain types of patients. As I see it here, our three functions, and the one thing I want to keep in mind all through the discussion, is this, that we are concerned primarily with the educational problem and if you please, a university problem as expressed through its university hospital. That goes in a good many directions and that says a good many things, a good many things could be said in the negative point of view, but I insist the thing we are dealing with here today is not this thing or that thing that somebody has imagined, the thing that we have come here together to deal with today is the educa-

tional problem. Now, I am perfectly willing to admit also, ladies and gentlemen, that perhaps from a secondary point of view, the problem we are discussing today, is of very vital importance to the medical profession of the state, that is the reason we are here. It is to be presumed that every person in this room is primarily concerned about the standards of the medical profession of the state of Michigan, it is to be presumed beyond that, that everyone is concerned about the public health of the state.

And also about the welfare of the people of Michigan, and it is from, if I may see it in no immodest way, it from this high-minded point of view or from this high level that it is necessary for us to approach the consideration of our problem today. We are concerned with the welfare of Michigan and more specifically about an educational problem as it relates to the University and specifically to your University Hospital.

Now my second main point is this, how have the Universities of the past attempted to perform these duties? To exercise these functions, namely the teaching of students, the conducting of investigation and research work and the care of patients for the state, how has this been done in the past? I want to take the time to describe how this has been done in the past and far be it from me to say a word which would cast the slightest reflection on men who have made the medical profession what it is in the United States and what I am about to say I am not thinking so much of its limitations, as I am thinking of the issue which recent dictates of the American Medical Society have forced upon us, and that is a more thorough grappling with the problems of education. I think it may be necesssary to set down three or four things in regard to the plans which Universities have used to perform these functions. There have been men who have been wonderful practitioners and have developed these medical centers which we have in America, other men who were interested in the science, these men sometimes have received no salaries at all, sometimes a mere pittance to make it impossible for people to say that he is willing to give all that time just in order that his own time may be utilized by the University, sometimes he has received a salary just as inadequate as the University teachers of today, but whether small or not, he has been a part time man because he is really elected to the practice of his own profession, if that means the supporting of himself and his family, he has derived his livelihood from the practice of his profession, and along this plan usually and certainly in State Universities, the hospital has been only organized primarily for the care of patients of the state, if I am correctly informed and if my experience has not been too limited, has been given over entirely to the care of the free patients or pauper patients, however you may care to describe them. The instructor was subject to a dual allegiance, he on one hand was serving his hospital for the University and on the other hand inevitably and in a self-respecting fashion, serving his family and earning his livelihood. The difficulties with the plan have been that it has been at times rather difficult to secure the type of man that ought to be secured and at certain times it has been difficult to maintain the standard of medical education and there have been certain limits in this scheme. It has been a plan which has represented a most conscientious effort to do the very best we could do. I beg of you not to think that I am in a critical mood in regard to the medical education.

My third main point is this More recently there has developed a plan for Universities meeting this function which it is rather difficult to describe, but which is not the plan which we propose for your discussion and consideration this afternoon, but which has met with some favor in medical education and particularly so far as it relates to the hospital. For the sake of clearness, let me call this—I don't know as I ought to—let us call this Flexner's plan, maybe that will tell you more quickly than anything else I can say. If Dr. Cabot would permit, I would use his phrase, academic plan. Just what do I mean by this plan that I offer as a second suggestion for the University performing its functions? It is the plan if you please that has been adopted at the Washington University of St. Louis. It is full time and yet it carries with it cetain limitations and a particularly good phasing of our hospital problems of today if we are going to get any place with it. Let us look at the clinician end of it. This clinician is essentially a scientist. I hope you will correct me if I am wrong. I think he says he prefers a man who hasn't had clinicacl experience, he wants a man who is first and foremost a scientist for his clinical chief. He wants this man however, to devote his entire time to the hospital and under this plan I suppose it could be said that the hospital could be characterized as a place where there are case more than patients. That it would be a place where people are taken care of, where human folks are attended to, where there are interesting cases to be studied from a research point of view, and I think under this plan which we will call the academic full time plan, just as the clinician is essentially scientist and just as the hospital is given over to the care of cases rather than patients, so, too, it must be pointed out that the plan as a whole fails to grapple with certain unescapable duties:

Here is the plan: Where are the weaknesses of this plan. First of all it fails to recognize that medicine it seems to me is an art as well as a science, it does seem to me that the plan as I have outlined it here, has really that unescapable defect that it puts the emphasis so strongly upon the science of medicine that it gets away from the art. There is another thing that it seems to me, it fails to do, and that is to name the type of man that we must have as our clinical chiefs, for it seems to me it must draw its man either from perfectly fine young men who are scientists of the first rank or those who have already passed the zenith of their careers and possibly cannot give to the hospital the service it needs. It seems to me the academic full time plan fails to come face to face with something you might

just as well admit at the beginning, doesn't come up with the market situation, for after all, an experienced well established clinician has value not only in a medical school, but also as a practitioner in the open market and we might as well run our heads against a stone wall as to attempt to disregard the situation. Now those are certain phases of this problem as they occur to me. It seems to me the essential weakness of this scheme is that it won't work. There are certainly some defects here. Here are some of the things which would suggest to us the possible weakness and defect in the original full time plan which was suggested ten or fifteen years ago. Here are the elements of strength in this plan. They are tremendous. For example I think everyone here will admit that this plan as compiled was to search with care, our standards of medical education. I think we all agree on this plan as put and with real emphasis on the research, also that it has really forced the issue in regard to hospitals and medical education from the University point of view. I wish I had time this afternoon to tell you of my wonderful conference with Mr. Vincent. I think I know what he thinks. I am quite sure he gives his loyalty to have this thing we call research and education everywhere and I think he is personally concerned about this thing as it is ultimately to work itself out.

I should like to pass to my fourth and final main point and present to you a plan which it seems to me may be offered for consideration as a method for performing the functions which I described at the beginning.

My first main point is that we are dealing with educational problems. My second main point is that there has been this older method as I characterized part time. My third main point is that it has been succeeded by a method which might be characterized as Flexners. And I come now to this fourth point and I say method we may discuss here, or anything else we may want to to-day—is a method for the performing of these functions which will endeavor to minimize the weakness and avail itself of the elements of strength. Now is there such a plan? I think there is and that is the thing that I want to very briefly set before you.

Now perhaps I might describe this plan as the group full time plan. Under this plan just where would we get our clinician, what kind of a man would he be? This clinician would be a man of experience in his profession, a man in his prime, a man who by the things which he has done would command the confidence of his colleagues in the medical profession. In the second place he must be a man who will be willing to say "my primary interest in life is science and education, rather than the amassing of funds or wealth." I don't mean to say anything here which I think won't admit of the high standard of the academic full time plan, I but I think we should have a clinical chief who always demands the respect of the medical profession and who at the same time is willing to say, "I am ready and willing to give up the limousine habit" as some people call it, I am willing to give up a lot of things, and I am willing to come to Ann Arbor and live in a house that is not as nice as I would live in, and I am willing to do that because I think there is nothing that suits me quite so much as being able to push a little further or broaden the realm of knowledge.

Now this man would receive his entire professional income, because he might have some money that he brought with him that he made before he come here, I should hope he would, but bear in mind that his full professional income would come from the University and moreover when he comes to us we would guarantee to him a minimum annual income. You say "get down to brass tacks" and tell us what you propose. You say now he is just as slippery as all University Presidents, he can come to the point and then dodge it, and I don't mean to evade the issue, but at the same time I have no authority to say what the University of Michigan will propose if this plan is adopted and put in operation. We know Dr. Janeway started at $10,000. You also know this University for a salary in the medical school or clinical work in the hospital has paid as high as $15,000 and on the basis of practicing value of the doctor, when Dr. Janeway received $10,000. I think we are paying a little less than they did. What we want is real value more than what can be said rigid terms of Arabic numerals. This is a hint of what we think this clinic chief ought to have. What about the hospital under this plan. Well, here is where we come to the real test of the President's diplomacy. Now let us look at it without any camouflage or any effort to avoid the unpleasant phase of the situation.

First of all it seems to me this hospital ought to be a place where human beings ought to be taken care of. Through our service we shall really treat these people as individuals who deserve the best attention that the state can give them, regardless of that particular group or strata of society from which they may come. In the second place this hospital would have in it no private patients, no method by which any patient in this hospital could pay $1.00 to anyone who treated him or took care of him professionally. In the third place it would mean the hospital would use all of its fees for the upkeep of the hospital and its clinical staff. In the fourth place there would be opportunity to give more and more support to the men who devote themselves entirely to the research end of the work and the fundamental science of the organization. Now this hospital in the fifth place would be one which would receive all kinds of types of people for you must remember at times at least not only the situation that you face, but the situation that we face, of the outward point of view of the university exhausting its educational function, that the student or doctor or interne who is in that hospital must have an opportunity to come in contact with all types of people. I am of the impression that any man who is trained to take care of one type of people, and particularly paupers is not trained to come into your home and mine to do that careful, psychological work that often needs to be done. That is one side of the

problem. You know, as I said to the hospital staff the other day, I said I would like to deliver to you from the layman's point of view, what I considered a successful doctor. You must remember when the state provides a hospital for us that there are a good many young people in the state who just because they are rich, cannot understand why we exclude them from a hospital. They think the hospital should be available for every citizen of the state of Michigan, so this in brief outline would be the kind of a hospital that we could have under this group medicine plan. What are the arguments against this plan? Perhaps you say you don't need to tell us that, perhaps I have reason to tell it to you first, what are the arguments against such a plan? Well first of all ladies and gentlemen, it is said, please observe I say "it is said" that this makes the university hospital **a competitor with the medical profession of the state. It does.** In what it seems to me must be recognized if carefully thought through in a very fair and limited fashion. Secondly, it is said that this is an effort on the part of the University to get some more patients. It is an effort on the part of the University to get a place to put the patients that want to come in and are standing around Ann Arbor waiting to get in, and I beg of you to remember, and I say it with seriousness, we don't want more patients than we need to do our educational job. We aren't here for any other purpose than for educational purposes, that we are not here to be unfair to you or to enter into competition with you or do anything which seems to be going in excess of the just and real exercise of the functions which the State has asked us to perform. The fact of the matter is, we have got more patients now than we know what to do with and you know and everyone knows that the minute we open that new hospital under construction, it will be filled to overflowing, and that it will enable us thereby to have these funds which will make it possible for us to maintain our clinical staff in the way that it ought to be maintained.

Now it is also said, please note, I am speaking now with the utmost candor and sincerity, it is said this is a plan which is intended to lead the State Medicine. It is not, emphatically. (Applause). May I say to you on the contrary that it is put forward as a constructive response to the situation which if adopted, will enable us to avoid State medicine. Let us look at that for just a minute. State Medicine, while perhaps—I will begin by saying to you and I think I may say it officially, that the faculty of the medical school, I will put it this way, the University of Michigan and I speak officially as its President and its representative, believe in the open competition of free individuals as medical practitioners. Now if anybody disagrees with that, alright, but that is the basis on which we have taken our stand and this doesn't squirm in the direction of state medicine and I am rather of the impression that those who say it does, are guilty of one or two things which I will not enumerate. If T. R. was alive he would apply a little word to it.

I want to say one other thing that I guess isn't necessary, which is the reason I say it. It is said this plan is State Insurance. You know at this point I wonder if I should run over to the Bureau of Tests and Measurements and see if I am all right. I think a man would have to be terribly cross-eyed to get any connection between the two. I want to say at this point we are opposed to it. Don't let there be any misunderstanding about this. I think there are some things that I know what I am talking about and this is one of them. Having said all of that, and reaching the point which to me is somewhat more pleasant, let us ask the question, what points are in favor of this group medicine full time plan? First of all gentlemen, it seems to me that as I have already said, recognize worth, that there is a worthy side, not as the art or practice of medicine. In the second place, it seems to me that it makes it possible for us to secure those types of men for clinicians which will mean a much larger service for the university and for the state. In the third place it seems to me it puts the additional burden of taxation where it belongs, namely on those who ought to be permitted in a self-respecting fashion to pay for what they get. In the fourth place it seems to me and as of the duties of group medicine you know it is not possible really in this day and generation without medical laboratory fixtures, to do what ought to be done and we believe this group medicine plan makes possible that kind of a provision. May I also add, that this thing has been tried out and worked out, but I grant to you it has been tried under private organization, but I think it will be extremely valuable not to have the State try it under the conditions which I have been trying to enumerate. In other words, here is a constructive suggestion, by means of which we may work our hospital program—it is based on the assumption and pre-supposition that we will endeavor to maintain the status quo of the medical profession of the State of Michigan. It is not life insurance, it is a plan based upon the knowledge that we will maintain the profession in high standards, that we will be of service to the profession of the entire state, that we will keep it from degenerating as far as it sometimes has done in the Army and Navy, we will have something which it seems to me will enable the University to perform its functions of teaching students and giving further instructions to the physicians who desire it, of engaging in research work, and in caring for patients on a human basis, all of it in such a way that it doesn't compete unfairly with the medical profession, it does it in a limited fashion, it does it with the greatest help to the medical profession and the men of the state. I wonder if you would think it would be unduly visionary if I would say now men, for the moment let us clear the books, do you remember in the old days when we used the slates for which we used to supply the moisture in an automatic fashion and do you remember sometimes where you had worked the whole thing on both sides and the answer was wrong, sometimes you would smash the slate and sometimes rub the whole thing out. Suppose we could start

now to have here in the State of Michigan a University Hospital which would be satisfactory to all of us, educators, professional men and citizens of the state. Suppose in fact that you and I had gathered here today for the purpose of considering some scheme in which we could do this in the best possible way, and suppose I was here as the representative of the leading educational institution of the state and suppose as I look out over this gathering, I could see men with earnest faces, men seriously concerned about the welfare of their several cities, men whose whole thought in this affair was not just exactly where or how they were coming out, but whose chief concern was how can we do this thing in the way it ought to be done and win, and then suppose I would say to you men, if this is your spirit, I in turn on behalf of the University will attempt to bring out this condition. Some of you are leaders with a fine practice, with an income exceeding by ten times anything that this University can ever pay you, there are some men whose chief concern in life is science and medicine and the welfare of the State of Michigan. I say if there are, the University will attempt to be the patron of science and medicine to the extent of assuring you—not that you can ever have the income you are having now, not that you can ever do what you are doing now, not that you can continue to live on the same plane you are now living, but we will promise to give you enough so you won't die in the poorhouse, enough so you can look everyone else straight in the eye and still have a reason that you can respect yourself, it will keep your soul from scraping when you go through a narrow door, I say maybe $15,000 as a hint of what it may be, if you will bind yourself together to develop this plan, then I will see for the University if we can put upon you the assurance we are suggesting.

Suppose enough men come forwawrd so we will have enough men for surgery, medicine, and all these other fields, and suppose this group gets together and sets up a hospital on this basis, that none of them are to have a profit patient, that when he performs an operation he won't know whether he is dealing with a man that can pay $25,000 or $25.00; suppose all he knows is that he is set there in the name of medicine and science to make the thing what it ought to be, and at the same time that he doesn't have to serve two masters, and then suppose the rest of you say, that's splendid on their part, that is magnificent. I can see that means a certain amount of competition in one point of view for me, but it means the highest kind of medical standard for our state. It will go through for with the support of the medical profession of this state we are going to do the most distinctive thing in medical education that has been done anywhere. Suppose we all get behind it and say here's a chance worth a test. Its from that point of view that I have been looking at it. I would like to have you tell me where the defects are. We haven't something all made that we want to thrust down somebody's throat. We have something that we want to make the medical profession proud that every man is a member of, or to develop conditions here which after all will make a contribution to science and public welfare, which you and I hold sacred. (Applause.)

Now ladies and gentlemen I am sorry that I took so much time, maybe it was necessary to get something started, that we should put something up for us to discuss. You have been invited here to enter into this discussion and we shall be glad to hear from any of you. I want to say it was requested that we have here stenographers so bear in mind whatever you say it is being taken down, that always helps one to know that what he says is what he really thinks. I don't know who wants to take the floor first, I want to say I have promised Dr. Cabot who has promised Dr. McLean to present his point of view of the State Medical Society to the State University and we shall be glad to hear from Dr. McLean any time. (Applause.)

PRESIDENT MC LEAN.

Dr. McLean: I feel very much like your Honorable President. I have been somewhat inveigled into this, but before my few remarks are through, I think you will probably notice there is quite a little difference between us, my modesty will be much less than his.

The President has put this question before you and if I hadn't known something of this before, I don't know whether I would have followed him just right, so in my remarks I will probably refer to some of my own impressions, which he did not express. He was very kind to the medical profession. He said they hand an amazing mind and a fascinating mind, but he left the great word out, the sympathetic mind. Now it is this sympathetic mind that is going to rule this meeting I believe, because the profession at large have a great deal of sympathy for the sick and injured, they have a great deal of sympathy for the University of Michigan, but they have some for themselves and it is this latter part that they will want to know what sympathy is going to be left for them when this thing is arranged.

He said this was entirely built upon three points, the three functions, the function of teaching, of research and the other function, the art of medicine, of treating the citizens of Michigan who need medical treatment. Now it is the latter that interests the State Medical Society more than the others. We are all interested in the other, but how the latter shall be done is the great question. Now he talked about the full time man and the part time man and the academic course, we are more or less familiar with but the fees, just exactly what the President meant by that, I don't know whether one man would be charged more than some other, or would that be a fair question?

President Burton: Certainly, Dr. Parnall will you answer that question?

Dr. Parnall: The answer is yes.

Dr. McLean: May I ask another question. On what ratio would that fee be charged, would you take a man's circumstances into considera-

tion, or would it be a set fee of say $1,000 for removal of a tumor, or how?

Dr. Parnall: On the same basis you would set yourself.

Dr. McLean: They wouldn't be charged anything doctor.

(Applause).

That would be all right.

President Burton: That is true of a lot of patients here.

Dr. McLean: The others you will make pay for the fellows that didn't pay, is that the idea? Well, we will take it for granted the people that can afford it, will be charged and may I ask what becomes of the fee?

The President: That goes to the University, never to the doctor.

Dr. McLean: Things haven't changed. I have been 30 years in practice and this is the first time I have ever been invited to the University so I hope I will be pardoned if I ask unnecessary questions. We will take up that third part. Then I judge from this whole affair that if this is so, you are going to treat the people of Michigan, take in other persons and the university will charge a fee, you will require a large hospital, may I ask how large a hospital it would be? How many rooms?

Dr. Parnall: Just as small a number as is possible to carry out the program of education.

Dr. McLean: Is this charge or these fees that are turned over to the University, is this a part of the research work?

Dr. Parnall: Who pays for the research?

Dr. McLean: I thought the tax payer, we are all more or less taxpayers, a certain portion of that goes to the University, then as tax payers we should all be interested in it, we pay taxes to support this hospital and we pay taxes to keep up this research and then after that the man that comes here, he is charged a fee also to keep that up. Now the point I am getting at is this, here is a man who comes from Saginaw we will say, if he comes here or is sent here, now then if that man is charged a fee and pays the fee in here, then that goes to the University, you use that fee to teach these young men, some of them go back to Saginaw, he is still disposed to send those patients here, where is this young man coming out in a few years. It takes state taxes to teach them and then it goes back to support the University, that is a question I will leave to the gentlemen to decide how it is going to work out. Whether you will become popular with the medical men I don't know. The next thing is material for the teaching. Suppose you want 1200 or 1600 beds, how many have you now?

President: Four hundred.

Dr. McLean: Then we will say 400 beds.

President: Our present hospital under construction will hold 640 beds and if it ever gets up to this point it will occupy at the most about 1100 or 1200. We don't want all the patients in the state of Michigan, we just want this limited number to take this job.

Dr. McLean: All right; as I understand it, we will say the state sent you a hundred cases of appendicitis.

President: We can't get many emergency cases.

Dr. McLean: You don't care what it is.

President: We don't want to go into an unlimited business here.

Dr. McLean: Well now then they have got to take this limited business, it seems to me its going to require considerable of a building, that is for the taxpayer to say whether he wants to or not. You want to make that investment either in Ann Arbor near some great center of population or where—for instance if you had a gold mine and you thought it was in a certain place, would you sink it where you thought that gold mine was and dig your shaft, etc. and tunnel a mile from there to find your gold—I think the most of you would go where the gold is. The same way with the man who has an orchard in the Northern Peninsula, if he wants to erect a wine press he isn't going down near Monroe to do it. I think if the state wants a lot of money to carry on research and then to charge the patients for it, I would go where the patients are for I feel sure that a lot of money is spent here and you will find under these arrangements you will soon be out of touch with the medical profession at large. If you are going to do that building, do it at a center where you can get your cases of all kinds by the hundreds, where they have hospitals by the score. Somebody spoke about the marketing of medicine. This is the point I get, if there is to be a market for medicine, I would put it in the most convenient place. The only thing I fear for this plan, the minute the University gets into competition with the medical profession, they are going to have an active competitor. I would thank you for this little opportunity. (Applause.)

President Burton: The meeting is open gentlemen for any remarks anyone wants to make. I would suggest that you offer any suggestions or points of view, that you might have on the best way that we can meet what seems to be the request of the state. I don't know that it is necessary for me to repeat it, I do beg of you not to crowd me into the corner of saying that we don't want all the patients in the State of Michigan.

DR. ARTHUR M. HUME.

Dr. Hume of the State Board of Registration.

Gentlemen: I feel authorized to speak to you upon this subject as representing the sentiments of the State Board of Registration, having been a member of that Board next in service to the oldest member. Let us consider for just a moment what this whole affair is and what there is back of it. This University has been referred to as a distinct Entity. This University is the University of the people of the state of Michigan to do those things that would be for the benefit in every way to the health, happiness and prosperity of all things that make life worth living. Every dollar that is expended here is contributed by the people of the State of Michigan. I believe

that the people of the State of Michigan understand what they are doing and just taking this one line, medical practice. The people of the state have seen fit to pay out good money for what. In order that each one of them in their own community may be afforded those things that will produce better conditions. That will produce longer life, that will produce better health. That is the function of the medical man in the community. He is a public service man. He is a producer of service, that the public is interested in and willing to pay him for, if it is service of the highest quality.

Now what have the people of the State of Michigan done in order to insure that that service shall be of high quality? They have established an educational institution. The medical department of the University of Michigan—they are paying the expenses of the operation of that in order that a man who goes into practice in the State of Michigan can render to the people of the state the class of service that they need and that they now demand. There is nothing in the whole construction and the whole affair that ever indicated that the medical department of the University of Michigan should be anything but educational. There is nothing and has never been anything that would even intimate that the medical department of the University was to render service, medical service, and when this institution goes into that field, of rendering medical service, they are going into something that was never contemplated in this plan. (Applause).

President Burton: May I venture to ask you what you would do with two bills passed by the members of the Legislature of the State of Michigan?

Dr. Hume: You can easily get changes. I remember about sixteen years ago about this time I was present at a meeting held before the Board of Regents, that inasmuch as it was necessary to have clinical material in order to carry on a medical school, that the clinical material necessary to do that should be taken from the different counties, of indigents, that went to tax, upon the books of the state, to render medical service in their community. That is entirely aside from the question, but I will say now, that is the plan that should be carried out and if it had been carried out through these years in the way that it was contemplated, and the law contemplated it should be, there would be no shortage of clinical help in this institution. There is nothing in the whole organization or in the law that has ever contemplated that this medical department of the University should ever engage either directly or indirectly in medical practice. It is simply an educational institution, when the man is turned out from her he passes under the supervision of the State Board of Registration and so continues as long as he is in practice in the State of Michigan and it is incumbent upon that Board to see that in each community the student receives from the practitioner in his community, the highest grade of medical service that it is possible to have. Thank you. (Applause).

President: Are there others?

Dr. Howell: I have been a practitioner in the State of Michigan for 25 years and in all that time have tried to obtain assistance to enable me to render better service to the people from the University and we do not receive that. Now under this plan what method will be adopted to see that we receive this assistance in the practice of medicine?

President: I think there are two things. First, we believe this plan would provide for us better clinical departments and secondly as we are now hoping, we believe these clinics we send out over the state, if I may judge from letters that come to me, is really a valuable service to the profession, and I think that the hospital and the school stand ready to expand this clinic. If it is the wish of the profession that you have them, that would be one thing that would be helpful.

Dr. Howell: I don't think you grasp my question. We send patients to this institution and the day this patient leaves our office until they return, we never hear one report from them, we know enough of what has been done for them, we know nothing of what to do with them after they come back. Now what step would you take to remedy that condition so when the patient returns, that patient shall return to that doctor and he will be better able to render service not only to the patient, but to all who come under his care?

President: Dr. Parnall will you answer Dr. Howell?

Dr. Parnall: I would say the gentleman's complaint is justified. I think in the past we have been neglectful in informing doctors. However, we are endeavoring to remedy that condition and we are trying to keep the practitioner informed regarding every patient who comes to the hospital.

President: This newer plan you speak of, how long has that been in operation?

Dr. Parnall: That has been left to individual clinics, it is only in the last two years we have tried to develop the University Hospital as a group of individual clinics instead of as a coordinate whole. Then every man will receive information regarding the patient. I think the criticism is justified.

Dr. ————The students often tell the doctors a lot of things that goes back to the doctors later.

President: I suppose you have all been there, you ought to know.

DR. BAKER.

Dr. Baker: I did not come here to dictate, I came here to listen. If we are going to tear down, we must also build up. Now the President has very ably told us that they had all the patients they needed.

President: We haven't enough patients in the hospital now because its only 400 to maintain this kind of a plan we need possibly as a maximum 1200 to take care of the plan like this, but right now we have several hundred in Ann Arbor waiting to get into the hospital.

Dr. Baker: We will all acknowledge that we must have training material in order that the students who are here are properly trained, that is the function of this school, to train medical students. **It's not the purpose of this medical school to be competitors or practitioners in the state of Michigan.** It should not be a selfish competitor. That being the case shall this hospital when it is erected, shall it be a place in which the staff of practicing physicians here shall become backed up by the State of Michigan with the prestige of the State Medical Society behind it, the competitors whose equipment they are going to get at cost? That every man shall pay to the limit of his ability? If he is a lumberman from the north woods, possibly he can pay $25.00, or a man who is manufacturing automobiles in Detroit comes here and pays $25,000, that would be the basis on which it would have to be handled. Now if we can get away from the question of what is fair to the profession and what relation exists between us and the state hospital, in this way let us provide some plan which will be more useful to the profession than it is now and I would suggest that the University of Michigan will be carrying on its functions as a training ground for the medical profession in a still better way if it can be a clearing ground for the graduates from the University. In other words I am located up at Bay City, I have a case come to me that needs a thorough laboratory overhauling. It may require some other examinations. This University school could be equipped or could carry on its work in a way that would enable me to send my patient down here, have a complete overhauling, then if the school here is organized and your departments are interwoven as they should be so that the patient when received was sent to the department where he apparently belonged, the examination was made in that department, report made on it, that passed on, and if he needed something else, that report would accompany him to the next department, and so on, all the necessary examinations to get a conclusion as to what was the matter with the man, the whole thing to be gathered together by the central office and then reported back to me with the findings and recommendations. He is still my patient and he comes back to me and if I am properly equipped as I should be I take care of that patient to the end. A large portion of the patients do not come from the doctor, or they are recommended by a competitor because that doctor didn't know what was the matter. A return postal card could be sent to me, you would find out I had had something to do with the case, a return card will be sent to me asking if I want information in regard to him. If I want it I say "yes" on the return postal card. I get a report then which will be a check and then I know whether I was wrong or right. That enables me to protect myself when the man comes back, also a better relation to the University of Michigan.

I think this should be a training ground for the students and next it should be an auxiliary for the aid of the practice of medicine in the State of Michigan and that would provide what the people of the State of Michigan want, the very best medical attendance. It seems to me this whole plan as it is outlined is a means of beating around the bush. Suppose somebody comes from Bay City to the University, he is put on this waiting list and he cannot get into the hospital, maybe not for a month. Somebody gives him a quiet tip that Doctor so and so has a private hospital over here and he can get his operation today or tomorrow so he goes over there, thats all right, the doctor has the pay. I am glad if they soaked him enough down here so he won't want to go away the next time. They are going to invite the people of the State of Michigan to contribute as profit patients to the hospital the necessary amount to make up $5,000. That is a poor plan because it is an expensive plan. You are putting into this University hospital a lot of money. The interest on that will pay all these salaries.

President: I would like to have that explained, that which you refer to as interest taking care of the situation.

Dr. Baker: I mean the amount of money necessary to build that hospital, the necessary expense of taking care of it would be taken care of by a small increase and the mill tax.

President: We are talking about this interest.

Dr. Baker: The people would have it in their pocket and pay it out a little at a time.

DR. FRANK B. TIBBALS.

Dr. Tibbals: My criticism upon the plan as outlined is that it is not sufficiently extensive. If the State of Michigan is going to engage in the general practice of medicine for the benefit of the masses of common people as Dr. Burton has told us, then the plan should be extensive enough so that every person in the State of Michigan may have those facilities, the assumption being that there are no medical facilities outside of Ann Arbor. I think that every town of 25,000 in this state offers adequate medical facilities and that there isn't any necessity for the average citizen of the State of Michigan to come to Ann Arbor for medical treatment other than the indigent. I think the original intent in the establishment of the medical department of the university was two-fold, that of the education of medical men of the state and the care of the people who were unable to pay their doctors in their home town. Dr. Burton spoke of the fact that constant attention of paupers as clinical material was not the ideal training for the silk-gloved doctor, he should practice in the high-toned family, I don't know whether you know anything about the pauper, I believe there has been little opportunity made to observe the ruling of the Board of Regents, that only indigent patients should be admitted here, unless they were sent by their family physician. There are lots of patients here who have not conformed to that and I should judge that the make-up of your clinical material comprises all classes of citizens of the State of Michigan; I don't doubt if the State of Michigan furnishes you a plant, your engineering

department can build automobiles as good as the Ford or the Packard can furnish them to the citizens of the state at reduced cost; why shouldn't they do it if they are going into the general practice of medicine. I don't doubt your pharmacy department can compete with drug stores in the preparation of furnishing of various drugs and save the citizens of the State considerable money. I don't doubt that your legal department can support itself if people of the State of Michigan can only be coaxed to come here, and why not, if the State is going into the practice of medicine, why not compete with every other business in the State. (Applause).

DR. WILSON.

Dr. Wilson: In my humble capacity I represent some of the medical men of the city of Detroit and it has been my pleasure to meet with the President of the University and hear him tell us what has been in the minds of the University authorities in regard to the extension and development of the medical department of this university. I will confess, however, it come to me as very much of a shock when I found a few things that he didn't say to be equally true with those which he did say, and particularly when I found that the Superintendent of the hospital, presumably having the fixing of bids under the new arrangement in his charge, proposed to charge patients brought here what they could pay. I also was rather surprised to find that in an effort to make medical men practitioners in the art of medicine, it was necessary for them to learn to treat human beings as such and that the aim of the university authorities was to teach medical students so to charge people, and so on. I followed that there were two classes of folks that I didn't quite have clearly differentiated in my mind. I find in order to differentiate between these, in order to come into the house of the President of the University and others of equal rank, it wasn't possible to acquire that right without individual personality, that little thing that isn't in the books, that thing that teaches us to meet our fellow beings as such by the treatment of indigent patients. In other words I found a classification of persons in two classes, human beings and indigents. It has always seemed to me that the man with the ragged coat and the dirty face, with very little or no money in his pocket, was a human being.

Dr. Burton: Doctor Wilson do you mean to say that you think that is what I said?

Dr. Wilson: You said a doctor to come into your home or family would have to have the—— may I ask the stenographer to read what you said at that point?

Dr. Burton: I said I thought we could train our doctors best by training them with all kinds of patients.

Dr. Wilson: You said in order to do that it was necessary that this other class of patients should be had.

Dr. Burton: Certainly.

Dr. Wilson: I make no classification of human beings into two such classes, I treat my poor people just as humanly as I can and I am just a plain, ordinary practitioner of medicine. This opportunity to sacrifice $100,000 a year for the sake of science, these men who are in the prime of life, these men invited to do this work, I belong to the outcasts. I approve of your program as far as that is concerned with reservations. The privilege of reserving a man's opinion on a proposition which is not fully explained, is always one's personal privilege.

I understand from the president there are three types of medical education, two in existence, the old part time plan; the other plan, when he is an acdaemic, full time man, so in scientific practice he loses the side of the human element.

I fail to understand under what plan the university has been working up to this time.

President Burton: I am sure I don't know.

Dr. Wilson: I heard no intermediate plan, I understood the third plan that was to be presented hadn't yet been put into effect. As to group diagnosis, every intelligent patient understands the larger the group—why it can be applied to 400 as well as 4000, it can be applied to one patient, one patient is all you need, you don't need 1200. Those of us who don't come to the University and accept this self sacrificing opportunity to work for the welfare of the community, are going to stay at home and we are going to make a living on some of the patients. Why do they go to the University? That is where the law of experience goes into effect. I am not saying this against the President or the University, they have my profoundest respect, the one point I differ with them in this respect, I cannot hold with them in the belief that they carry with them the sound medical knowledge that exists in the confines of this State. There are other men outside of the University they will undoubtedly recognize that fact, who are quite qualified to practice medicine, but they have been slow to avail themselves of the general impression that existed in the individual, that if anybody wanted the highest type of medical service, it was to be given through the University of Michigan. It has been a common complaint Mr. President that the private work throughout this state has been encouraged by the employes of the University of Michigan in the treatment of patients generally belonging in the hospital of the State University. Now if in the new plan there should be the same kind of activity, that has previously gone on, then the men in private practice throughout this state are going to suffer, there is no question about it. We need some clear thinking. We agree that the hospital is the place in which the medical student shall learn how to practice the art of medicine. I agree with that. We agree it should be the place where he gets the highest kind of medical attention, but we do not agree the University of Michigan is the place where patients should go who are not indigent patients and are perfectly able to pay for the medical service. I believe that to be the only bone of contention which is really worth while bringing forward. I can't see it is a part of your educational program, I can't see the logic,

I can't see why that program isn't as effective, not as workable without these patients, but you have included in the plan things to which the medical profession of the State of Michigan will never agree. (Applause). No diplomacy on the part of the President of the University will ever get us to agree. It seems to me the sooner that fact is recognized, the sooner will the faculty present a plan to the people of this state which will be accepted and never until that time. I take it in the same sense Mr. Chairman that you have uttered, that we should not be to serious, but I take it in the same sense that we should not be too obscure, that we should think clearly on all these points and also it is essential that if you have any plan that it should be presented in its entirety and no point left out. (Applause).

Dr. Burton: Any others.

Dr. ————: May I ask one question. You speak of the minimum of $15,000, would there be any way whereby this $15,000 is augmented at the end of the year if the hospital earns more money than is necessary to pay the salaries? And if there is no way to augment this salary, in what way this plan differs from the academic plan which you mentioned.

Dr. Burton: No, his whole professional income would be his salary.

DR. J. B. KENNEDY.

Dr. Kennedy: I had not made up my mind to come out here until a few days ago when some of the gentlemen in Detroit said to me, "unless you go to Ann Arbor you will miss a treat because President Burton is going to preside and you may be sure you will enjoy an intellectual treat." I am very glad I came to get some light on the subject, I have written down a few questions that I would like to have somebody answer. What was the total amount of your income last year, can anybody tell me, of the hospital?

Dr. Burton: Yes, that's available.

Dr. Kennedy: What was it?

Dr. Parnall: I will tell you, $389,864.

Dr. Kennedy: And your expenditure?

Dr. Parnall: $396,696.

Dr. Kennedy: From what source did you derive that income, now I want to get down to some practical questions.

Dr. Parnall: I can give it in the classified amounts.

Dr. Kennedy: What proportion from the state, and what proportion from the patients.

Dr. Parnall: I can give the source, I can't tell who paid the bills.

Dr. Kennedy: We are not asking whether John Smith or somebody else paid a bill, how much from patients and how much from the state.

Dr. Parnall: I haven't definitely what come from the state, but its about $200,000.

Dr. Kennedy: $188,000 from private patients?

Dr. Parnall: I haven't it exactly here.

Dr. Kennedy: Are the cases utilized for teaching here in the university?

Dr. Burton: The answer to that is, they are.

Dr. Kennedy: There is a report going round that recently, and I promised a gentleman out in the hall before we came in here that we would put our cards on the table, face up, there is a report going round that a patient was operated on and a fee of $1,500 was paid, is that true, or is it not true, let us correct that impression if it is not true.

Dr. Burton: Dr. Parnall says it is true.

Dr. Kennedy: Was that patient used for clinical purposes?

Dr. Cabot: He was.

Dr. Kennedy: A man who pays $1,500 for an operation and is used for clinical purposes. Now what become of the $1,500.

Dr. Burton: Don't you know Dr. Kennedy?

Dr. Kennedy: I don't.

Dr. Burton: It went to the University Hospital.

Dr. Kennedy: So then we fellows out in the state, we are paying taxes twice, a direct tax and then indirectly because this money has come out of some fellow's pocket, that is true isn't it and is that the custom that is followed here?

Dr. Parnall: Well I might suggest the man who paid the $1,500 is paying taxes too.

Dr. Kennedy: It is in competition with the profession throughout the state.

Dr. Burton: To a limited extent, yes, sir.

Dr. Kennedy: There isn't very much limit. the sky seems to be the limit here, $1,500 for an operation. (Applause). What is the amount of the appropriation asked for the University of Michigan this year, I have seen a number of figures, I don't know whether I am correctly informed or not.

Dr. Burton: $8,690,000 plus the mill tax. $750,000 a year.

Dr. Kennedy: You get $750,000?

Dr. Burton: We got $700,000.

Dr. Kennedy: Is all the $700,000 spent?

Dr. Burton: Contracted for.

Dr. Kennedy: Let me say to your Mr. President and gentlemen, that the profession of the State of Michigan is absolutely in favor of providing all of the clinical material that is necessary, or preparing for all material that is necessary for teaching purposes in the University of Michigan. (Applause.)

The act was passed some years ago that an abundance of clinical material should be provided for teaching purposes here in the University of Michigan, but it appears from what we are told here today that other tactics are adopted than those made the rule by the Board of Regents a few years ago and so we face the unique situation, the young man coming here to the University, getting the best possible training for the profession in medicine, an abundance of clinical material, teaching them, then they go out into the

country to practice and the university takes their patients from them and charges them $1,500 for an operation, and we ask if that is fair? We are fair enough to say that the profession will go with you to the extent of providing for all the necessary clinical material for teaching that is necessary. Let me ask the question, how do you estimate the amount of material that is necessary? Have you got enough now, let somebody answer that. If you have got enough now why are you asking for more? Shouldn't the State of Michigan pay for the teachers of medicine adequately as they do for the teachers in the other departments? Why shouldn't they? I think we are willing. The doctors are willing. I am safe in saying that aprpoximately of the 600 men that are in this room, 95 per cent would be very glad to have their taxes increased rather than have their patients taken away from them. What is the system, the system used. I wonder how on earth a patient of mine got into the hospital last month with 200 on the waiting list. I wonder how a patient that I operated on two years ago and I have aranged to operate on again some day this week, and I was told just as I was leaving the hospital that she was now at the University Hospital. I wonder how she got in over the 200 on the waiting list. I would liked to have had the $200 for that operation, I need the money. I have just paid my state and county taxes and I feel a litte sore that that $200 got away from me, how did she get in?

Let me repeat that I believe the profession of Michigan are willing to stand back of you and with the medical department of the University of Michigan to have provision for all of the clinical teaching that is necessary, but if the University of Michigan according to this statement as I understand it, if I understand it right, proposes to put itself in competition with the medical men of this state they won't get much support, and we are against your proposition. (Applause).

Dr. Burton: Are there any others?

DR. HAFFORD.

Dr. Hafford: I want to say that this is one of the best institutions in the state and I have been proud that I have had three children graduate from here. These instances might be reiterated, but there should be some plan, something to work on it seems to me and I believe that this thing offers a suggestion right here, that a committee be appointed, perhaps from our Council to get a plan which would be mutually agreeable to the faculty and the university and the medical profession to work out for the best of all.

Dr. Burton: I think I understand one point, are there any others?

Dr. Jackson: Is it essential to your plan that you have pay patients. And second, by what right tax payers may be charged different fees, because they are all tax payers, the man who is worth more, pays more?

Dr. Burton: I think the answer to your first question is yes. I think the answer to your second question is by authority of the Board of Regents.

Dr. Jackson: Is it clear in my mind, that the success of your plan is the paying of patients?

Dr. Burton: I think it is essential.

Dr. Jackson: Why?

Dr. Burton: Because, for the simple reason we simply cannot retain clinics chiefs that we need at the salaries that we can pay.

Dr. ————: I would like to ask the question in regard to that $1,500 patient, whether he went into a ward along with the indigent patient or not. If he did not and he isn't going to, why then, we ought to have two hospitals, one where the rich could come to and another where the indigent patient could come to. We all agree that the university must have enough material, but when it comes to taking the wealthy man. If we let down the bars and allow every rich patient to come here who wishes, would it not be only a short time when this will become the center for the rich patient to come and as a consequence, the poor will be crowded out. There seems to be a lot of doubt, in fact if the air hadn't been as blue with doubt as it is here with smoke, I don't believe there would have been as good a crowd here today. It seems to me when the state starts in to charge for patients coming here to the hospital for service, it is all state medicine. I don't see how we are going to make anything else out of it. As this school grows larger, will we have to keep on adding more or will there be a limit.

Dr. Burton: You know the answer to that, it has been stated here three times. As I have said, I think those here who represent the University, I think we see what you mean. Are there any other views or phases of this problem? I take it that the medical profession want the University to limit itself and its clinical material strictly to indigent patients?

(From several) Yes, sir.

Dr. Burton: Is there anything else, any other phase of the problem that we want to discuss. I think this one point has been sufficiently aired. There is just one thing I want to speak of gentlemen. I think for the first time in my life I have had my integrity questioned this afternoon.

Dr. Wilson: May I rise to a privilege. May I say one thing?

Dr. Burton: No, sir, I have the floor, I am sorry if I have created the impression that I am dishonest or that I am deliberately withholding anything from you, for in my own soul I am satisfied of my own integrity. Now Dr. Wilson—

Dr. Wilson: Mr. Chairman, may I ask you whether the remarks that I made are the ones to which you have reference?

Dr. Burton: Yes, sir.

Dr. Wilson: May I ask the house please to decide the question. I would dislike very much— Does the house wish me to sit down? (Shouts of "Yes").

Dr. Burton: Are there other points, particularly from a constructive point of view, as to what you think we ought to do? You have made perfectly clear one thing, that you think we ought to take only the indigent patients and receive no one else. Are there other phases that you think we ought to take up, that you would like to express your opinion on?

Dr. ————: I believe this, that inasmuch as the people of the State of Michigan reap the benefits from the high class of medical education and the high class of medical practice, that if it could be presented to those people in a proper light, they would be perfectly willing and glad to contribute to this University a sufficient amount of money to pay every member of the faculty what he is justly entitled to. It seems to me we are making the possible mistake of trying to put through a make-shift and to avoid asking the people of the State of Michigan to pay for what they should pay for, and that is the class of service they will get under that clinic.

DR. DU BOIS.

Dr. DuBois: The question was, have you sufficient clinical material. No one has seen fit to answer that question, is there an answer?

Dr. Burton: It depends a good deal on what you mean, whether under our present plan, or for the development of a more comprehensive plan?

Dr. DuBois: Have you sufficient clinical material then to use in the teaching of medicine?

Dr. Burton: That is for our present plan.

Dr. DuBois: Have you enough clinical material, or as much as you can possibly use in the teaching of young men here the study of medicine?

If you have, very well and good, if you haven't, I think the profession of the State of Michigan will be only too glad to unite with you in getting you more and more as you need it for indigent work. We want to get away from the commercializing of medicine, let's not commercialize that young doctor as you are educating him. (Applause). Then we can forget that there is a difference between that rich man and poor man.

Dr. Burton: I want to be perfectly sincere in all of this, I don't want you to think I take unto myself the credit of originating this plan, it was initiated before I come here, it has been tried elsewhere, so don't get the impression that I am trying to lay claim to it personally, I have just spoken today as a representative of the University in this matter and don't wish to have it understood that the plan originated in the back of my head.

Now the perfectly obvious conclusion of what you have said, every speech has been definitely to the point, that the hospital should not compete with the profession in even a limited capacity and the material should all be of the indigent type. Now is there anything else anyone wants to bring up?

Dr. ————: I would like to say Dr. Wilson is President of the Wayne County Medical Association and also Vice President of the hospital staff of which I am president. I don't think it is right for Dr. Wilson to be put in the background that way and not give him a chance to apologize.

Dr. Burton: I accept the gentleman's apology, I just wanted to make clear that I was sorry of any impression I had created that I was holding back certain things of this plan. I meant to put all the cards on the table. I hope you will really give me credit for doing that.

Dr. Wilson: You have the advantage of me, I am not in a position to—

Dr. Burton: We are willing to have you speak doctor.

Dr. Wilson: No member of the medical profession of Detroit or elsewhere came here with the slightest intention of offering any disrespect to the President.

Dr. Burton: I quite understand.

Dr. Wilson: I came here with the understanding of discussing a logical question, if I have misquoted anything, that is my misfortune as well as yours. I certainly intended no disrespect to the President in any remarks that I made. I don't believe they bear that construction, I want you to understand our feeling, I have a feeling of the most profound respect and admiration for the President and this University.

Dr. Burton: Thank you sir.

Dr. Wilson: We would feel very sorry to be placed under the burden of suspicion as to the motives which have brought us here and as I say you have naturally, an advantage over a member of the congregation.

Dr. Burton: I observe a good many of you want to catch trains, unless there are further remarks, we will consider ourselves adjourned. With this final statement, we want to thank you for setting forth so clearly your point of view.

ADRENALIN IN DIAGNOSIS.

The new science of endocrinology has developed so rapidly that, in order to remain in the vanguard of the march of progress, the physician needs must keep himself informed on every phase of glandular therapy. In harmony with this idea we have directed the attention of our readers, on several occasions, to the series of instructive essays on Adrenalin that have been appearing in the advertising section of this Journal.

In the current issue we present a brief discussion of the use of Adrenalin as a diagnostic agent in hyperthyroidism and pancreatic diabetes, also as a test of suprarenal function. The technic of these tests is simplicity itself, and there would appear to be no reason why any practitioner should not avail himself of them in certain obscure cases in which a differential diagnosis by the usual means may be difficult or even baffling.

The preparation employed in making the tests is the original 1:1000 Adrenalin Chloride Solution of Parke, Davis & Co., upon the use of which for twenty years the literature of suprarenal therapy has been built up.

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February

Editorials

ANNUAL DUES.

In response to several requests we again announce that the annual 1921 dues are Five Dollars and are now payable. Of the increase of One Dollar and a Half, One Dollar goes to the Medico-Legal Defense Fund and Fifty Cents to the Journal. This increase was necessitated by the increased expenses of these two activities of our State Society.

Prompt payment is urged. Please do not necessitate dunning notices by your County Secretaries. Remit to him and not to the State Secretary or Treasurer. Pay your County Secretary.

ANNUAL MEETING.

The Council selected the date of May 24-25-26 for the holding of our Annual Meeting in Bay City. The profession of Bay City are already perfecting arrangements for this meeting and promise to provide most acceptable and pleasing provisions. This will be a very important meeting as several matters of unusual interest will be presented.

Of this we are certain that when the official programme is announced no member can well afford to miss the meeting or participating in the hospitality and entertainment tendered by the doctors of Bay County. Note the date now on your calendar and permit no conflicting engagements to occur.

PROFESSIONAL INCOME.

HOW THE FEDERAL TAX APPLIES TO THE MAN OF THE PROFESSION.

To the professional man the problem of correctly making out an income tax return for the year 1920 is somewhat more involved than that presented to the salaried man. The wage earner on a fixed salary has an accurate estimate of the amount of compensation received for personal services, while the professional man's income varies from year to year. In the professional class may be included the physician, dentist, lawyer, architect, veterinarian author and clergyman. Each must figure up his net income for the last year. If single or if married and not living with his wife and his net income was $1,000 or more, or if married and living with his wife and his net income was $2,000 or more, a return must be filed.

The exemptions are the same as for the year 1919. $1,000 for single persons and $2,000 for married persons living with husband or wife, and heads of families, plus $200 for each person dependent upon the taxpayer if such persons are under 18 years of age, or incapable of self-support because mentally or physically defective. The period for filing returns is from January 1 to March 15, 1921.

The professional man must make a return of all fees, salaries and other compensation for services rendered, together with income from all other sources. If he keeps his accounts on the "receipts and disbursement" basis—which means a record of the amount received and the amount paid for expenses—he should file his income tax return for the year 1920 on that basis. If he keeps books showing income accrued and expenses incurred during the year, he must make his return from his books and include all income, even though not entered on his books. If books are kept on the accrual basis the taxpayer must include all income that accrued, even though not actually received, and may deduct items of expense, although not actually paid. Both the receipts and disbursement basis and the accrual basis are explained in instructions on the forms for filing individual returns of income.

This constitutes gross income from which the taxpayer is allowed certain deductions in arriving at net income upon which the tax is assessed. Among such deductions are the cost

of supplies used by him in the practice of his profession, expenses paid in the operation and repair of an automobile used exclusively in making professional calls, dues to professional societies, subscriptions to professional journals, rent paid for office room, expense of fuel, light, water, telephone used in his office, and the hire of office assistants. Amounts expended for books, furniture and professional instruments and equipment of a permanent character are not allowable deductions. In the case of a professional man who maintains an office, but incidentally receives at his home patients, clients, or other callers in connection with his professional work, no part of the rent of the home is deductible. If, however, he uses part of the house for his office such portion of the rent as is properly attributable to such office is a deductible item.

A reasonable allowance is made for depreciation, or wear and tear of equipment and instruments used by professional men. When through some **new invention or radical** change in methods or similar circumstances, the usefulness in his profession of some or all of his instruments or other equipment is suddenly terminated, so that he discards such asset permanently from use, he may claim as a loss for that year the difference between the cost (reduced by reasonable adjustment for wear and tear it has undergone) and its junk or salvage value. If the apparatus was owned prior to March 1, 1913—the date the first income tax law became effective—its fair market value at that date should be considered instead of its cost in figuring depreciation and obsolescence.

Deductions for uncollectible fees form an important item in the returns of many professional men. To be allowed as a deduction, a debt must be worthless and must have been charged off within the year in which its worthlessness was discovered. The return must show evidence of the manner in which discovery was made. For example, statement should be made that the debtor has been discharged from bankruptcy or has disappeared leaving no trace, or that all ordinary means of collections have been exhausted.

A debt proved to be worthless is not always a proper deduction. Unpaid amounts representing fees for professional services are not allowed as deductions unless included as income in the return for the year in which the deduction is sought or in a previous year. The fact that expected income was not received does not reduce the taxable income. If a debt is forgiven it cannot be deducted, because it is then regarded as a gift. A debt may not be charged off or deducted in part, but must be wholly worthless before any part can be deducted.

Compensation in any form for professional services must be included as income. If a physician, lawyer, or other professional man should receive from a merchant goods in payment for professional services, the fair market value of such goods must be included as net income.

Forms for filing returns are now available at offices of collectors of internal revenue and branch offices. Collectors will mail to each person who last year filed a return, a copy of the return form for 1920. Failure to receive a form, however, does not relieve a taxpayer of his obligation to file a return and pay his tax on time. Taxpayers whose net income for the year 1920 was $5,000 or less should use Form 1040A. Those whose net income was in excess of $5,000 should use Form 1040.

In addition to the individual forms, partnerships must file a return of income, or even if there was no net income, on Form 1065. Partnerships as such are not subject to the income tax. Individuals carying on business in partnership, however, are taxable upon their distributive shares of the net income of such partnerships whether distributed or not and are required to include such shares in their individual returns. The return must show the name and address of each partner and his share of net income.

The tax this year as last may be paid in full at the time of filing the return—on or before March 15, 1921—or in four equal installments, due on or before March 15, June 15, September 15, and December 15. Payment may be made by cash, money order or check, which should be made payable to "Collector of Internal Revenue." The return must be filed with the collector for the district in which the taxpayer lives or has his principal place of business. Heavy penalties are provided by the revenue act for failure to file a return and pay the tax within the time prescribed by law.

A BILL.

To promote the protection of the public health, to provide for the appointment of county health officers in and for the various counties of the State, and to prescribe the compensation, powers and duties thereof.

The People of the State of Michigan enact:

Section 1. At the first regular October session of the Board of Supervisors of each county of the State, after this act shall take effect, it shall be the duty of said board to appoint a county health officer. Said county health officer shall be a registered physician within the State

of Michigan. Any woman who possesses the qualification herein prescribed shall be eligible to such appointment; and, whenever words importing the masculine gender are used herein, such words shall be deemed to extend to and include the feminine as well. Each such officer so appointed in the first instance shall assume office for a term of four years and until a successor is appointed and qualified. The successors to said officers shall be appointed by the respective Boards of Supervisors at the regular October session of each fourth year, hereafter, and shall hold office for terms of four years each, from and after the next ensuing first day of January. Any county health officer shall continue to hold such office until the appointment and qualification of his successor. Each such appointee shall file his acceptance with the county clerk of the county, who shall thereupon notify the State Commissioner of Health of such filing: Provided, That appointment of a health officer whose jurisdiction shall be limited to the county shall not be required hereunder in any county having a population of less than 20,000 according to the last official United States census. It shall be competent for the Boards of Supervisors in two or more counties, no one of which has a population in excess of 20,000, to employ the same person as health officer for each of said counties. All health officers appointed hereunder shall be selected from a list furnished to the respective Boards of Supervisors of the State by the State Commissioner of Health as hereinafter provided.

Section 2. During the month of September, 1921, it shall be the duty of the State Advisory Council of Health to hold and conduct an examination for applicants for appointment as county health officers in the various counties of the State. Such examination shall be held at the city of Lansing, Michigan, and at least two weeks' notice thereof shall be given by the said Council of Health by publication in at least three newspapers of the State, of general circulation, to be designated by them. The State Advisory Council is hereby given authority to adopt suitable rules and regulations, not in conflict with the provisions of this act, for the holding and conducting of said examination. Any registered physician of the State of Michigan, or of any other State of the United States, shall be eligible to take the same. The questions for such examination shall be prepared under the direction of the Advisory Council of Health and shall cover the public health laws of the State, public hygiene and sanitation, methods of control of contagious and infectious diseases, and such other subjects as in the opinion of the State Advisory Council of Health shall be included therein. Applicants passing such examination shall be issued a suitable certificate by the State Commissioner of Health and shall thereupon and thereafter, unless such certificate is revoked for cause, be eligible for appointment as county health officer in any county of the State.

Section 3. Any certificate issued by the State Commissioner of Health under the provisions of the preceding section may be revoked by said Advisory Council of Health for cause on notice and hearing to the holder of such certificate. Proper cause for such revocation shall be deemed to include cancellation or loss of registration as a physician, misconduct or misfeasance in office, incompetency, or any other cause rendering the holder of such certificate of registration an improper person to hold the office of county health officer or to perform the duties thereof. In case of the revocation of the certificate of any county health officer hereunder, notice thereof shall be given by the State Commissioner of Health to the county clerk, who shall place the same before the Board of Supervisors at the next regular or special session thereof. Any county health officer whose certificate is revoked hereunder shall be deemed to have vacated his said office. Any vacancy occurring in said office, whether by revocation of the certificate of registration granted hereunder or otherwise, shall be filled in the same manner as is or may be provided by law for filling vacancies in other county offices by the Board of Supervisors, and the person appointed to fill such vacancy shall hold office for the balance of the unexpired term and until his successor is appointed and qualified.

Section 4. Each county health officer shall receive an annual salary of $4,000, one-half of which shall be paid by the State of Michigan out of the General Fund in the same manner as the salaries of circuit judges are or may be required by law to be paid, and one-half shall be paid out of the general fund of the county in the same manner as the salaries of county officers are paid. Each officer shall also be entitled to be reimbursed by the county for expenses incurred by him in the performance of his official duties, such expenses to be audited, allowed and paid in the same manner as are expenses incurred by other county officers: Provided, that the Board of Supervisors of any county may at any regular session thereof increase the compensation herein provided for, the amount of such increase to be paid by the county. Provided further, that the salary of any county health officer who is appointed to serve in more than one county, as provided in Section 1 hereof, shall be payable one-half by the State and the balance thereof by said counties in accordance with the population thereof as near as may be. It shall be the duty of the Board of Supervisors of any county, acting in conjunction with any other county in the appointment of a health officer, to fix in the resolution of appointment the proportion of the salary to be paid by such county.

Section 5. Each county health officer appointed hereunder shall have the general charge and supervision of the enforcement of the health laws, rules and regulations of the State within his county and may make such rules and regulations with reference to the spreading of contagious and infectious diseases, the abatement of nuisances and other matters relating to the public health within his county as may protect the health of the general public and as may be consistent with the general laws of the State and the rules and regulations of the Michigan Department of Health. All such rules and regulations shall be published by said county health officer in some newspaper printed and circulated within the county and shall not be deemed to be effective

until such publication. He shall be subject to the direction and control of the State Commissioner of Health and shall perform his duties in such manner as may be directed thereby, or as may be required by statute. He shall also make such reports to the Health Department of the State as may be requested by the State Commissioner of Health: Provided, however, that said county health officer shall not act hereunder in any city maintaining a health department with a full-time health officer, except with the consent and approval of the State Commissioner of Health and the State Advisory Council of Health.

Section 6. It shall be the duty of the county health officer herein provided for to investigate all cases of alleged nuisances detrimental to the public health and all sources of contagious disease infection when the same are called to his attention. If any nuisance is found by him to exist, he shall immediately notify the prosecuting attorney of the county, stating fully the facts and circumstances of the case. Thereupon it shall be the duty of the said prosecuting attorney to institute proceedings for the abatement of the nuisances and for the punishment of the persons guilty thereof, or such other action as the exigencies of the case may require.

Section 7. Any person violating any regulation, rule or order of the county health officer, made in accordance with the provisions of this act, shall be deemed to be guilty of a misdemeanor and on conviction thereof shall be liable to a fine of not more than two hundred dollars or to imprisonment in the county jail not more than six months, or to both such fine and imprisonment in the discretion of the court.

Section 8. In addition to the powers and duties hereby granted and imposed, it shall be the duty of the county health officer to make any investigation, examination or inspection provided for by any law of the State relating to health, sanitation or industrial conditions, when requested so to do by the State Commissioner of Health or by any other state officer or commission. In making such investigations, examinations and inspections, the county health officer shall have and possess all the powers and privileges granted by law to the officer or officers regularly charged with the performance of such duties, and shall make his report accordingly.

A BILL.

To provide for and define the duties of the State Commissioner of Health with reference to the registration of births and the issuance of birth certificates, the registration of deaths and the issuance of death certificates, the making and preservation of records of marriages, and with reference to the recording of other vital statistics; to provide for the transfer of certain powers and duties pertaining thereto from the Secretary of State to the State Health Commissioner, and for the transfer of vital statistical records from the Department of State to the Department of Health.

The People of the State of Michigan enact:

Section 1. All powers and duties now vested by law in the Secretary of State with reference to the registration of births and the issuance of birth certificates, the registration of deaths and the issuance of death certificates, the recording of marriages and the collection, recording and preservation of other vital statistics are hereby transferred to and vested in the State Commissioner of Health. The State Commissioner of Health shall hereafter be vested with full authority, and shall be required, to exercise such powers and perform such duties with reference to said matters as have heretofore been vested in, and required to be performed by, the said Secretary of State.

Section 2. As soon as may be after this act shall take effect, it shall be the duty of the Secretary of State to cause to be transferred to the State Commissioner of Health all records, statistics and data and all blanks of any nature whatsoever pertaining to the matters in the previous section referred to. Upon receipt thereof, it shall be the duty of the State Commissioner of Health to keep and preserve said records in accordance with the laws pertaining thereto. All publications and reports of vital statistics heretofore required to be made from time to time by the Secretary of State shall hereafter be made by the State Commissioner of Health.

Section 3. All acts or parts of acts in anyway controverting the provisions of this act are hereby repealed.

THE UNIVERSITY CONFERENCE.

In response to the invitation extended by the University Hospital Staff some five hundred Michigan physicians attended the conference in Ann Arbor on the afternoon of January 13th. The purpose of the conference was to discuss certain present and proposed activities and plans that are being advanced and carried out in conducting the University Hospital and to which there have been expressed objections by the profession of Michigan. Numerous rumors and reports regarding the Hospital have been passed around. Some two months ago we suggested that it would be well were the University men to call a conference for a frank statement of the situation and expression of opinion thereon in order that the atmosphere might be cleared and facts be set forth for final appraisal. The suggestion evidently met with favor, the conference was called, and President Burton presided.

At the very outset we are frank to confess to disappointment for the reason that during the conference and up to the present time, President Burton and the Hospital Staff failed to present an opportunity to confer and have declined to accept the suggestion that representatives of the University and of the Medical Profession (The Council) meet, outline and agree upon a plan or policy to which co-operative support might be subscribed.

While President Burton delivered a forty-

five minute address during which he reviewed past and present educational plans and then outlined the proposed present plan for the University Hospital whereby its staff would be composed of full time men on adequate salary, whereby all classes of individuals would be admitted and fees charged those who were able to pay in amounts varying from five to twenty-five thousand dollars and that the hospital and its staff would go out in open competition with the profession of the state, and set forth some of the reasons why they proposed such a plan, the opinion seems still to prevail (and without disrespect to President Burton) that complete details have not yet been imparted and that we are not yet fully acquainted with the entire proposition, method of administration, or proposed executive policies. In this failure we were again disappointed as also because the real need of such a radical change was not satisfactorily demonstrated. We had hoped to hear the individual viewpoints of administrative and staff members. It was very apparent that, while they were present, they were evidently under instruction or agreement to not participate in the discussion either because of opinions held by some, or for fear that their remarks might not be in accord with the diplomatic strategy that seeks to institute this new scheme. There was thus created a rare instance of our being deprived of their heretofore always instructive advice upon common topics of mutual concern and interest. Evidently we were and still are looked upon as a society and as a profession, as Doctor Cabot stated in a letter, "A voluntary organization....." that rarely exercises its functions sufficiently to convince the average man that these societies are public spirited."

The conclusion may also be drawn that President Burton, in some of his uncomfortable moments during which he several times came near losing his equanimity, realizes that the opinions expressed were backed by all and that they were not as Doctor Cabot has stated—"that the rumors and talk are largely idle gossip and not backed by the real opinions upon which men act." There can be no doubt regarding the emphasis with which disapproval was recorded.

President Burton must now realize that the Medical Profession is of the opinion and determination that:

1. The profession is more than willing that the University Medical Department shall have all the clinical material and every other facility for educational and teaching purposes. That the profession is willing and eager to subscribe its support to provide these needs.

2. The profession is *not* in accord with the plan to have the University Hospital come forth as a direct open competitor and admit other than indigent patients.

3. The profession is of the opinion that the present hospital facilities should be entirely utilized to care for indigent patients. That no pay patients should be admitted because it necessitates a larger number of indigents to remain on a waiting list before gaining admission.

4. The University Hospital and University officials are overstepping its rights when it and they assume that they are the fountain head and mentors of medical standards and efficiency in the state and that it shall dominate the activity of the medical men of Michigan thereby making them subservient to the minds, practices and leadership of the University.

5. That as tax payers we too have the right to record our opinions upon the administrative and educational plans of state institutions that we help to support and cling to our right to voice our approval or disapproval whenever occasions indicate.

We feel certain that President Burton can have no reason for concluding that the physicians of Michigan are of other opinion. We trust that in the future he and his staff will realize that medical men while, as he stated, have amazing minds that may not always be academic, nevertheless are not of a type that meekly bows to attempted dominancy that has a pronounced autocratic tendency and is intolerant of the rights and wishes of others.

We are not convinced that the Regents and legislature will ignore the opinions, objections and requests of our members and give sled length support to these plans; plans which President Burton attempted to slide out from under by stating that they were not his but had been advanced by others before he assumed the Presidency of the University.

We still stand in wonderment of the effrontery that some have been bold enough to offer to the profession by their activity and attitude since they have become affiliated with the University Medical Department and Hospital. We trust that henceforth they will be more respecting to the physicians of Michigan and not assume an intolerant, superior attitude. We venture to suggest that they travel and mingle with us in a fraternal and co-operative frame of mind and not as self instituted leaders or dictators. That they realize that the Michigan State Medical Society and its members are men and women who are constructive in their aims and work for the best interests of the people

of this state and who stand ever ready, as they always have, to bring to their fellow citizens communal happiness and contentment in their activities, to minimize disease and illness, and create more healthful environments and physical well being.

In as much as we are publishing a stenographic report of all that was said we feel that further comment is not required. Each member will be able to appraise his own sentiment in regard to this competitive plan that is being attempted to be thus thrust upon us. We are certain that, contrary to opinion advanced by Doctor Cabot, the State Medical Society will exercise its influence to defeat adoption of such a plan and present just reasons why the wishes and opinions of the officials proposing this plan must realize that they are not the self annointed mentors or progenitors of standards of practice and to cause them to obtain the full force of such a realization the profession has in this conference unmistakably announced that it repudiates and opposes their proposals and injudicious methods.

There were present at the conference as stated some five hundred doctors from practically every part of the state and their expressed sentiments certainly must have been startling and disconcerting to the University officials and teachers. The objections registered were not idle gossip or rumor but turned out to be emphatic realities.

For our members' further information we reprint herewith a letter recieved from Doctor Hugh Cabot and which represents a startling expression of his views regarding our Society and our prerogatives:

Ann Arbor, Mich.,
January 3, 1921.

Dear Mr. Warnshuis:

Please pardon my delay in answering your letter of December 11th but it has only just come to hand as I have been absent in the east. I am delighted that you continue to believe that a meeting such as proposed is desirable. Your view that the attendance will be small would seem to me to indicate that on the whole you do not believe that the interest in the profession is large. On this, of course, your information is entirely superior to mine. I think, however, it will be an excellent barometer of the real interest of the profession. If, as you suggest, the attendance is small, it will, I think, be convincing proof that the rumors and talk to which you refer are largely idle gossip and are not backed by the real opinions upon which men act. If the profession is not, in fact, sufficently interested to accept this invitation of President Burton's, I shall be disappointed in their public spirit in regard to the problems of medicine.

I am very much interested in your view as to the functions of the State Medical Society in relation to the actions of the University. I am a little doubtful whether the Board of Regents would be satisfied to take the view that the policies of the state institutions should be arranged so as to conform to the wishes of the state medical societies, a voluntary association, which though it includes a majority of the physicians of the state, does not include all or nearly all of them. I entirely believe, as I assume that you do, that one of the functions of the Medical Department of the University is to assist in the development of medical practice and in the adjustment of medical practice to the needs of the community. This is, of course, also a function of state medical societies, but one which is rarely exercised by state societies to an extent sufficient to convince the average man that these societies are in fact public spirited. I suspect that the Board of Regents might take the view that the function of the State university in any of its departments was concerned with the betterment of all the people rather than particularly with any one group of people.

Yours very truly,
(Signed) Hugh Cabot.

Dr. F. C. Warnshuis,
Powers Theater Bldg.,
Grand Rapids, Mich.

THE UNIVERSITY HOSPITAL PLAN.

What is wrong with our University Medical Department? The Medical Alumni and the Profession of the State were dumbfounded a few days ago to hear our new President exclaim that a new and comprehensive plan was in mind and that the profession of the State were invited in, for what? Well he did not tell us, whether it was to approve or acquiesce in the plan, but he did tell us that the plan was comprehensive and that there was a difference in handling the rich and poor when sick and that the students should be taught both methods. Some of us wondered at the time if we were so out of date as not to know the meaning of the word, but when we got home we found that the new Standard Dictionary still said that the word meant as we understood it, breadth of view, limit of vision or understanding and sympathies. So we must take it that the new plan was limited only by the view, vision and sympathy of its sponsors. Certainly it was not the unanimous view of the faculty because many

of them are opposed to it, and what is more not one of them said publicly one word for the plan. It seemed from what we could gather that many of them were opposed to the plan. Not a voice was raised in its favor except one whose views were entirely socialistic and represented neither the profession, the faculty or what was all in all the public at large and that is the fellow who must finally pay the bill not only for this magnificent hospital which is being built in a village, but must also pay for its maintenance.

The good President went on to tell us although they intended to make the institution self supporting by taking in patients who were financially able to pay for their treatment and charge them a good round fee for it and put that money in a pot called the University Fund and that this fund would be used for maintenance and TO INCREASE THE SALARIES OF THE PROFESSORS. Now this is merely borrowing from Peter to pay Paul. If these men are not paid sufficiently then the Board of Regents should increase it in a legitimate way and the men who are employed to teach medicine to the student should give all their time to such duties. Is it not right to infer that if the faculty is given cart blanc in the handling of pay patients at the *State' expense for hospital service* that this would make them an impossible competition for other Doctors in the State. Then there is the other side. Are the rich and poor to be taxed alike for maintenance of this institution. If so then we must increase the tax for the medical department for sufficient money that will pay the increase they state is needed for the Professors' salaries as well as for increased hospital expenses and let the whole state pay alike and not penalize the people who have a little money saved, when they happen to be sick.

This institution was established for the purpose of disseminating knowledge throughout the State and country and the Medical department happened to be one of the subjects selected as is Law, Engineering, Dentistry and some other. We have not learned that the Law Department was in need of funds to increase the salaries of its professors, nor have we heard from any of the other departments in like manner and these other Departments have been able to obtain the services of capable men and thus their standards kept at the top.

We are forced to the conclusion that an institution which is only able to pay its professors a salary of $5,000.00 and to increase to $10,000.00 they must give him an additional title and pay the other $5,000.00 for this title and at the same time pay a superintendent $12,000 for managing the Hospital need revamping.

W. J. Du Bois.

Editorial Comments

Frequently laboratory directors state that after a positive Wassermann report is made, the physician administers three or four doses of neosalvarsan and then becomes peeved because the next report is still positive. The treatment of syphilis entails more in the line of treatment than three or four doses of intravenous medication. In a subsequent issue we hope to be able to publish a resume of the requirements of active antisyphilitic treatment.

This issue contains proposed health bills introduced in the legislature. They merit your support. Will you not see your senator and representatives and urge their vote in behalf of these bills?

Has your society requested and arranged for one or more of our Regional Clinics Teams? The reports of the meetings thus far conducted are very encouraging and are proving to be most instructive.

We have no reason to conclude that the dangers of compulsory health insurance propagandists are at end. We note a studied and continued activity to disseminate the movement's propaganda and the stealthy attempts to thrust this undesired legislation upon the people of this State.

Some criticism has been expressed because of the scarcity of doctors in rural and less densely populated localities. The proposed administration plan for the university hospital will not tend to remedy the complaint. What doctor is eager or willing to enter upon the trials and tribulations of country practice, let alone physical hardships and enter into direct competition with the hospital staff?

President Burton, in his address, made reference to a communication directed to the State Medical Society and never presented. The only communication we have received from the University was one in regard to providing physicians for rural districts having no doctors. This communication was presented to the Council and we record the action taken from the Minutes of the Council, and as printed on Page 316 of the July, 1920 Journal: "The Secretary was directed to conduct a survey of the State to determine the distribution of physicians; to create a clearance bureau of information for the listing of localities where physicians are needed, to be of assistance to imparting information to physicians and communities as to locations or available physicians. The necessary funds for expenses of such a bureau was created on motion of Councilor Church supported by Councilor Dodge."

President Burton's informant evidently knew

not of what he was talking if he advised him that that was the way the referred communication was treated. We admit that we failed to acknowledge receipt of the communication nor did we advise the Secretary of the action taken—we presumed he read The Journal.

This issue contains the advertisements of new firms. We call your attention to them and invite your patronage of all our advertisers. Please make good our word that advertising in our Journal pays. We sustained a loss last year and will sustain a bigger loss this year if we fail to support our advertisers.

Radium has been available for therapeutic use for 21 years. As a profession we are not yet realizing its therapeutic value and limitations. Unfortunately the announcement that attended its discovery, that radium was a cure for cancer and other ills of mankind and then later partly discredited served to create a distrust as to its value. However, the persistent, scientific study of its efficacy, the observance of results, dependable conclusions as to these results, accurate determination of effective dosage and method of application has gradually swept aside prejudice and radium treatments are now accorded proper recognition. It is well established that radium is of defifinite value in the pre and postoperative treatment of cancer. In certain skin lesions splendid results are obtained. In tubercular involvement of cervical glands excellent effect is recorded. In leukaemia, Hodkin's disease, fibroid tumors and in prostatic enlargements the value of radium treatment is daily being reported productive of desired improvement, arrest and disappearance of symptoms. We feel that we should more and more consider in given cases the value of radium and advise our patients accordingly.

It was some conference. There was no room to doubt where the profession stood or what their opinions were.

It is reported that Dr. Parnall is now receiving an annual salary of $12,000 as Superintendent of the University Hospital.

Our annual report contained the conclusion that we believed the profession was so organized and alert as to be ready to respond tellingly when called upon to give expression to their sentiments or to defeat undesired legislation. The conference confirmed that conclusion.

We would like to have heard or still to hear the opinions of individual faculty members and ex-faculty members.

As President of the University, as a capable, efficient, scholarly, highly trained, successful educator and as a polished gentleman we have the most profound respect and admiration for Dr. Burton. Michigan may well be proud of him. However, he has undoubtedly been mis-informed to some extent regarding the Doctors of Michigan. At any rate he stated it wasn't his plan and evidently its designer did not fully acquaint the President with the objections possible to it. We are aware that other educational institutions and educators have devoted some thought to it and that it is a proposed innovation in the educational world. Someone in this part of the country gained the idea that it might be tried upon the doctors of Michigan!

Correspondence

Detroit, Mich., Jan. 12, 1921.

Dear Doctor:

We desire to call your attention to the opening of two wards as a medical diagnostic service.

It has been observed that many physicians desire to take advantage of hospital facilities and equipment for diagnostic purposes, especially for patients in whom the diagnosis is obscure. In the absence of necessary laboratory and other equipment, it is often difficult for you to make a complete diagnosis, especially in cases requiring:

Differential Blood Diagnosis.
Protein Metabolism.
Carbohydrate Metabolism.
General X-Ray, Fluoroscopic Laboratory Studies.
Basal Metabolism.
Endocrine Studies.

The class of patients admitted to the diagnostic service should be patients who are unable to pay for the services of a consultant.

The regular hospital charges for ward bed, laboratory service, etc., will be made but the professional services will be free.

After final diagnosis, the patient will be returned to the family physician with a statement of findings and an outline of treatment recommended. The diagnostic service will be under the direction of Dr. Stuart Wilson, who will be ably assisted by a number of associates in the Medical Department, and by other specialists on the staff.

Dr. Wilson will be glad to have the family physician see the patient with him at the hospital and follow the methods of arriving at a diagnosis. In sending patients to the hospital, please indicate that they are sent for admission to the diagnostic service. Admission will otherwise be carried out in the regular manner.

Sincerely yours,
W. L. Babcock, Superintendent.

Detroit, Mich., Jan. 15, 1921.

Dr. Fred C. Warnshuis,
Powers Theater Building,
Grand Rapids, Mich.

My Dear Doctor:—

Never before has the medical profession been in such an excited condition as they are now, about the meeting in Ann Arbor. You, of course, know all about it, and it certainly was great. I think it is going to help to revive the interest in the State Medical Association. It demonstrates that if the profession of medicine will stand together and join our State Medical Society, that our influence is greater (when we

think we are right) than is the President of any great university or the regents thereof.

Be sure and send me a copy of the stenographic report as soon as convenient. Now is the time to use it for the benefit of the Medical Profession.

I have never been prouder of our Society than I was on that glorified afternoon, when the flag of the autocrat was compelled to bow its head to a great profession. Long may that spirit keep up.

Yours very truly,

Angus McLean.

Pontiac, Mich., Jan. 14, 1921.

Dr. Angus McLean,
Detroit, Michigan.

My Dear Doctor:

I was some little amused this A. M., after reading the Detroit Free Press, of the brotherly meeting over in Ann Arbor, and since we Medics through the state must have all received the kind invitation of our genial friend and Diplomat Dr. Burton, to be present and be informed just how much he loved us, just how we should conduct ourselves, just how the good old University was going to take care of all the patients in the future, and just how lovely we were to feel, after all this together with placing all doctors on a salary through this big state, of course these things were not discussed but many things cussed.

We medics, country medics, are not supposed to know any too much now days, we receive letters from the good old University Staff thanking for the receipt of John Doe, said John Doe may have met me or some other medic, at least he has got a Doctor's name from his own town, and that Doctor receives a very nice letter, Conscience Letter, but who the devil is John Doe.

Sam Smith went over to the University, his friends were not satisfied with home diagnosis, last stage of Pulmonary Tuberculosis, comes home and reports all about neighborhood, has not got consumption, the Doctor never gets a letter from the University on Sam Smith, but gets a lot of ——— in and about the neighbors.

I love my Alma Mater, but Oh, you University of Michigan are you going to allow me to walk alone some day, and wear pants even though they are patched? I appreciate all you are doing for me, but for God's sake do not use me to save your conscience, do not tell me "You are it" when I know that I am not?

Now Doctor this is rather a fool letter etc., but it dove-tails in very well with what has been going on over at the University of Michigan, and I sincerely hope that Doctor Burton brings about a better feeling and better condition of affairs, even though he unconsciously takes away a good part of our income.

I am fraternally yours,

——————— M. D.

Detroit, Mich., *October, 1904.*

Dear Doctor:

In the interest of good citizenship and of the medical profession, I ask you for your earnest and energetic assistance in the following matter:

The Medical Faculty of the University of Michigan are required to furnish gratuitous medical and surgical service to all people of this or other states, regardless of their financial ability to pay for such service. Such a ruling on the part of the Board of Regents of the University of Michigan is most unjust and injurious in the extreme. That this ruling should be reconsidered is evident.

It appears, however, that the most vigorous protest of the medical profession within the radius of the influence of the University of Michigan will be required to attain this object. Therefore, I ask you to immediately write a vigorous letter to each member of the Board of Regents of the University of Michigan, viz:

Hon. James B. Angell, LL.D., Ann Arbor.
Hon. Charles D. Lawton, Lawton.
Hon. Henry S. Dean, Ann Arbor.
Hon. Arthur Hill, Saginaw.
Hon. Levi L. Barbour, Buhl Blk., Detroit.
Hon. Henry W. Carey, Manistee.
Hon. Frank W. Fletcher, Alpena.
Hon. Loyal E. Knappen, Grand Rapids.
Hon. Peter White, Marquette.

Furthermore, to ask your County Society to pass a resolution to that effect and to have the Secretary forward it to the same gentlemen, at once, and to use all other influence in your power to re-establish sound conditions

The assistance of the County Auxiliaries of Wisconsin, Illinois, Indiana, Ohio and Michigan is requested simultaneously.

Sincerely yours,

Emil Amberg,

Michigan Member of the National Legislative Council of the American Medical Association.

Comment—The same is apropos to our present relationship though this notice was sent 17 years ago.

Deaths

Doctor Frank Thomas died December 31st, 1920, of heart disease at his home in Lansing at the age of 53 years.

Doctor Thomas was born in Allegan, Michigan, was a graduate of the Detroit College of Medicine and Surgery. Surviving are the widow and one son.

The deaths of the following doctors not members of the Society have been reported: Doctor Daniel Conboy of Verona, and Doctor Charles H. Lards of Adrian.

State News Notes

The University of Michigan's plan to collect fees from "private" patients in the University Hospital met with more disapproval Monday night when the Wayne County Medical Society passed resolutions indorsing the attitude of its delegation in the recent Ann Arbor conference with President Marion Leroy Burton.

By unanimous vote the society resolved:

1. That any plan or intention on the part of authorities of the University of Michigan to construct and use any part of any university hospital for the treatment of patients able to pay for medical or surgical services meets with its entire disapproval.

AGAINST CHARGES.

2. That to charge patients in the university hospitals or any other state hospital or institution for medical or surgical services rendered to them by employes of the state is a dangerous and vicious proposal and should meet with no approval from any social group in this commonwealth.

3. That it is the opinion of this society that a high standard of medical education can be secured and maintained in the University of Michigan both in its class rooms and its hospitals by means other than those now proposed by its faculty, and in such a way as to be to the advantage of both the medical profession and the community itself.

The report of the delegates was signed by Doctors Max Ballin, R. L. Clark, J. E. Davis, J. H. Dempster, George E. Frothingham, H. A. Luce, J. E. Kennedy, Charles F. Kuhn, Angus McLean, E. H. Sichler, Frank B. Tibbals, Walter J. Wilson, Harold Wilson and Frank B. Walker.

WORK NOT FINISHED.

"We do not wish the society to understand that the educational committee's work is finished with this report, " said Dr. Harold Wilson, president, after the society had voted approval. "We are going ahead with plans for some really constructive work, which, we hope, will be of benefit to the community as well as the profession. These will be submitted for your approval later."

The Academy of Surgery of Detroit was organized Thursday at the D. A. C. by a number of surgeons. The new society was formed for the purpose of advancing scientific surgery and for the progress of, and research into the principles of the profession.

The new society is similar to the New York and Philadelphia surgical organizations. One of the objects of the Detroit academy is to bring the most scientific treatment to all classes of people, rich and poor alike. The poor will receive similar treatment to that given to the wealthy.

Meetings will be held once a month, nine months in the year. Surgical topics and operations will be discussed for the benefit of all members This organization will not conflict with any other medical society in Detroit or Wayne county.

Membership is limited to surgeons who are prominent in their field of endeavor. Four honorary members were elected at the first meeting of the academy, as follows: Dr. Charles B. DeNancrede, Ann Arbor; Dr. Theodore A. McGraw, Sr., Detroit; Col. Remi Casgrain, Windsor; and Dr. John Wishart, professor of surgery of the Western University of Canada.

The officers of the new academy are: Dr. Angus McLean, president; Drs. H. W. Hewitt and Joseph Andries vice-presidents, and Dr. Ira Downer, secretary-treasurer.

The Detroit Board of Health has recently sent to the physicians of Wayne County a "Communicable Disease Code." It contains a copy of the "Ordinance to provide for the control and regulation of communicable diseases within the city of Detroit; to provide for certain powers and duties for the Detroit Board of Health in reference thereto and to provide a penalty for the violation of the terms thereof. The first chapter has to do with the definitions used in ordinance and a list of the reportable communicable diseases. The second chapter deals with reporting of communicable diseases. The third chapter gives the period of incubation and quarantine for certain diseases. The fourth chapter states the general provisions for controlling communicable diseases. The fifth chapter contains several provisions for the controlling of certain diseases. The sixth chapter has to do with the movement of infected persons or things restricted. The seventh chapter deals with sanitation, cleaning or disinfection. The eighth chapter gives the provision for the control of dangerous or careless persons affected with communicable diseases. The ninth chapter handles things miscellaneous. The tenth chapter deals with the duties of undertakers with respect to the bodies dying of certain communicable diseases. The eleventh chapter handles the enforcement of this ordinance. It is a very useful and convenient book of 23 small pages for the busy practitioner to have and use.

The Board of Trustees of the Children's Hospital Association of Detroit announces the following changes in the organization of the Medical Staff for the ensuing year. Doctor Grant McDonald has been added to the Consulting Staff which otherwise remains unchanged. The Active Medical and Surgical Staff is discontinued and the Board has adopted in its place a staff organization based upon directors of service. The Directors of Service for the ensuing year will be: Pediatrics, Doctor Raymond Hoobler; General Surgery, Doctor A. McAlpine; Orthopedics, Doctor F. C. Kidner; Ophthalmology, Doctor H. L. Begle; Otology, Doctor J. S. Wendel; Laryngology, Doctor H. L. Simpson; Neurology, H. A. Reye; Pathology, E. R. Witwer. Each Director of Service shall hold office at the pleasure

of the Board of Trustees and shall be directly responsible to the Board for the conduct of his department. He shall appoint, subject to the approval of the Board, an associate and all necessary assistants in his department. The Directors of Service shall organize and choose from their number a Chairman, Vice-Chairman and a Secretary. They shall meet at least once a month and a copy of the minutes of their meeting shall be furnished the Executive Committee of the Board of Trustees on the second Wednesday of each month.

Several deaths from diphtheria during the latter part of December have caused the Detroit Board of Health again to issue a statement urging prompt reporting of cases so that antitoxin may be administered before the disease has made appreciable progress. At this time there are between 450 and 500 cases of diphtheria in Detroit, a total slightly in excess of normal.

Small pox is somewhat more prevalent than usual. About 90 cases have been reported. Failure of a large part of the population to resort to vaccination is blamed for the spread of this malady.

Scarlet fever cases reported give a number slightly larger than that of last year.

To combat the further spread of communicable diseases the Detroit Board of Health plans to start a series of weekly clinics at the Herman Kiefer Hospital early in 1921, at which methods of diagnosing and treating such cases will be explained to all Detroit physicians who care to attend.

The last regular meeting of the Detroit Medical Club was held at the Wayne County Medical Society Building, on Thursday evening, December 16th, with Dr. E. M. Houghton, the President, presiding. Dr. Plinn F. Morse gave a most instructive talk on nephritis, which was illustrated with lantern slides, a thorough discussion following. At this meeting there were present Dr. Meader, head of the Medical Service of the Detroit Board of Health, and Dr. R. A. C. Wollenberg, newly elected members, the quota of thirty-five now being filled with one exception.

At the meeting in November, Dr. Stuart F. Wilson discussed the subject of endocarditis of an unusual type, presenting four pathological specimans of hearts. One specimen in particular showed vegetations on the pulmonic valve, which in life gave no symptoms, and was particularly interesting. Dr. H. W. Plaggemeyer read a paper entitled Medical Aspect of Prostatectomy, and Dr. Walter J. Wilson presented two clinical cases of Mitral Stenosis.

At the October meeting, Dr. Frank R. Walker gave an instructive discussion on the subject of hospital standardization. The meetings this fall have been very well attended and the club is having a most successful winter.

At the regular meeting of the Wayne County Medical Society, January 17th, the following resolution was passed:

Resolved that any plan or intention on the part of the University of Michigan to construct and use any part of any University Hospital for the treatment of patients able to pay for medical or surgical service, meets with its entire disapproval, that to charge patients in the University Hospitals or any other state hospital or institutions for medical or surgical services rendered to them by employes of the State is a dangerous and vicious proposal and should meet with no approval from any social group in this commonwealth; that it is the opinion of this Society that a high standard of medical education can be maintained and obtained in the University of Michigan both in its class rooms and its hospitals by means other than those now proposed by its faculty and in such a way as to be to the advantage of both the medical profession and the community itself.

During the latter part of 1920, the Michigan Department of Health has published "The Health Officers' Guide and Manual of Useful Information." This manual has been prepared as a guide to health officers and local boards of health. It is divided into two parts. Part 1 aims to cover the organization of health boards, their powers and duties in relation to the prevention of communicable diseases; also to the investigation and abatement of nuisances and to the transportation of dead human bodies and embalming. It includes also some supreme court decisions which may be of interest to health officials. Part 2 briefly covers the field of laboratory diagnosis in infectious diseases and aims to indicate to the physician and health officer how they may avail themselves of the laboratory in the prevention and eradication of communicable diseases.

A series of conferences have been arranged between the Wayne County Coroners, the Board of County Auditors and representatives of the Bureau of Governmental Research at which a bill making radical changes in the Coroners office will be considered. A bill will probably be drafted and presented to the legislature at the present session. It is proposed to substitute a medical examiner to take the place of coroners who will determine the cause of death when possible and report to the police or sheriff. In cases where there is suspicion of foul play the police or sheriff will be called in but no inquest will be held. All investigations will be under the prosecuting attorney. Whether the bill will provide for the appointment or election of a medical examiner has not been determined.

The Legislative Committee of the Wayne County Medical Society are effectively active at the present time. They are watching legislation and are prepared to oppose vigorously any legislation which is inimical to the laity or the medical profession and to conduct a propaganda, not from the standpoint of the physician but for

the purpose of letting the people of the state receive the necessary information.

Thus far the results of its activity and work are splendid as was evidenced by the Ann Arbor Conference, January 13th. This Committee has no paid lobbyist at Lansing. It has other points of contact with various civic organizations throughout the state that are interested in medical as well as other legislative questions.

The Fifth Annual Session of the American Congress on Internal Medicine will be held at Baltimore, Md., week of February 21-26, 1921.

The activities of The Congress will be largely clinical. Ward-walks, Laboratory Demonstrations and Group or Amphitheatre Clinics will be conducted daily by members of the medical faculties of The Johns Hopkins and The Maryland Universities.

Further information may be secured by addressing The Secretary-General, 1002 N. Dearborn St., Chicago, Ill.

Doctor J. B. Kennedy, Chairman of the Legislative Committee of the Wayne County Medical Society, and Doctor Angus McLean, President of the Michigan State Medical Society, addressed the members of the Calhoun County Medical Society and the representatives from the various surrounding counties at Battle Creek, January 4th, on the subject of "Legislation Affecting the Medical Profession." The following day Doctor Kennedy talked on the same subject before the Kent County Medical Society at Grand Rapids.

John F. Roehl, investigator of the Detroit Department of Health, received formal recognition from the Michigan State Board of Registration in Medicine for his work of last year in cleaning Detroit of its medical fakers. This appreciation was in the form of a resolution from this board commending Major Roehl for his untiring and successful persecutions of some of the most dangerous and unscrupulous medical charlatans practicing in Detroit.

Wayne County is assured of a new hospital for the insane as the Detroit sinking fund commission have decided to purchase $400,0000 of bonds to be issued by the county to pay for the proposed building. Work on the new structure to be located at Eloise will start at once. The hospital will have room for 300 patients and will enable the county to care for many persons now held in private homes and in institutions not able properly to provide for the mentally incompetent.

Lieut-Gov. Read has appointed Doctor William A. Lemire of Escanaba Chairman of Committee on Public Health, Doctor O. G. Johnson of Fostria Chairman of Committee on State Hospitals and Doctor Arthur J. Bolt Chairman of the Committee on Printing. They hold these chairmanships in the State Senate for the coming two years.

The new addition to the Detroit Receiving Hospital was opened January 3rd. This addition contains 220 beds and brings the capacity of the hospital to 375 beds. There is sufficient land left to receive another addition of 155 beds. When this is done the hospital will occupy an entire block with a court in the centre.

The next meeting of the Congress on Medical Education and Licensure will be held in the Congress Hotel, Chicago, March 7, 8, 9, 1921. A joint program will be participated in by the Council on Medical Education and Hospitals, the Association of American Medical Colleges, and the Federation of State Medical Boards of the United States.

Doctor and Mrs. G. Van Amber Brown of Detroit are enojying a few weeks stay in the South, visiting at Ashville, N. C. and several other points of interest. Doctor Brown was recently married to Miss Ivy A. McAneny of Detroit. They will be at home to their friends after February 15th.

On January 3rd following a symposium on "Narcotic Drugs," The Wayne County Medical Society elected 16 delegates to the Ann Arbor Conference and 21 delegates and the same number of alternates to the Michigan State Medical Society. They also elected Doctor A. D. Holmes a trustee to succeed Doctor Angus McLean who resigned.

Nations of Latin-America, through their diplomatic representatives, jointed with the United States, France and Great Britain in paying tribute to the memory of the Late Major-General William C. Gorgas. Memorial services in his honor were held January 16, 1921, in the Pan-American Building, Washington, D. C., under the auspices of the Southern Society of Washington.

At the annual meeting of the Michigan Williams College Alumni Association, held at the Detroit University Club, January 12, 1921, resolutions were passed expressing this Association's appreciation of the personal worth and professional achievements of Doctor Benjamin Robinson Schenck, a graduate of the class of 1894.

On Monday evening December 20th, following the general meeting of the Wayne County Medical Society, Mr. David Brown of Detroit made an earnest plea that this society either collectively or individually help the "Hoover Movement" to save the starving children in Europe.

The Southwestern Michigan Triological Association met Dec. 14 in the offices of Drs. Sleight and Haughey and elected as officers for the ensuing year: Dr. E. P. Wilbur, Kalamazoo, as President; Dr. R. D. Sleight, Battle Creek, as Vice-President, and Dr. Wilfrid Haughey, Battle Creek, Secretary and Treasurer.

It is announced that a post-graduate course will be opened for physicians in the Woman's Hospital, Detroit, under the auspices of the Wayne County Medical Society. Doctor James E. Davis will instruct in pathology and Doctor Harry Schmidt in internal medicine.

Doctor F. W. Robbins of Detroit sailed for Scotland as a member of the Canadian Curling team which will meet the Caladonian curlers. Before returning, Doctor Robbins will spend a few weeks in the London hospitals. Doctor Clarence Candler will have charge of his office during his absence.

Doctor George E. McKean of Detroit is a candidate for membership on the Detroit Board of Education having applied at the City Clerk's office January 17th for nomination petitions. Doctor Andrew P. Biddle is a member of this Board.

The late Benjamin F. Tobin of Detroit left $5,000 apiece to the Michigan Children's Free Hospital at Farmington, the Florence Crittendon Home of Detroit, the Michigan Children's Aid Society and the Thompson Home for Old Ladies at Detroit.

On New Years Day, Doctor Charles G. Jennings of Detroit gave an old fashioned New Years reception to the Fellows of the Detroit Academy of Medicine at his residence, the Garden Court Apartments.

Dr. William H. Browne, 1502 David Whitney Building, Detroit, has retired from the active practice of medicine to accept the post of Medical Director of the Northern Assurance Company of which he is a member of the board of directors.

A Million Dollar Club has been organized in Detroit in connection with the Independent Order of Foresters. Its membership will be limited to 200. Doctor Joseph Aarons was elected physician to this club.

Doctor Paul Woolley, formerly Professor of Pathology at the University of Cincinnati, has been appointed Pathologist to the Herman Kiefer Hospital, Detroit. He succeeds Doctor Morse who has resigned.

Dr. Ralph A. Perkins announces that he has resumed practice at the corner of East Grand Boulevard and Jos. Campau Avenue, Detroit. Practice limited to Dermatology, Syphilology and Radio Therapy.

The other day Doctor E. B. Forbes of Detroit rolled a score of 297. This is the highest score ever bowled on the D. A. C. alleys by an amateur.

Nine physicians took the special examination given at Detroit January 12, 13, 14, 1921, by the Michigan State Board of Registration in Medicine.

Doctor and Mrs. W. R. Chittick and their daughter of Detroit left January 31st for California.

Dr. D. Emmett Welsh of Grand Rapids has gone to California for a two months' vacation. He will return about April 1st.

Doctor Victor C. Vaughan of Ann Arbor gave a talk on "Protein Disease" before the Detroit Academy of Medicine, January 11, 1921.

At a recent indoor track meet between the Juniors of the Detroit Athletic Club and the Y. M. C. A., William H. Stockwell, son of Doctor Glenn W. Stockwell, won 3 out of 7 events.

Doctor Edwin Beers of New York City read a paper on "Renal Tuberculosis" before the Wayne County Medical Society, January 17, 1921.

Doctor C. B. Lundy of Detroit was recently elected senior vice-commander of the Fred W. Beaudy Post of the American Legion.

On December 19th the "Stork" visited Doctor and Mrs. Neil Bently, of Detroit, presenting them a daughter, Alice Suzanne.

Doctors Plaggemeyer, Harold Wilson and Frank Kelly attended the Victor Herbert Dinner at the Detroit Athletic Club, January 15, 1921.

Doctor and Mrs. A. D. Holmes and family of Detroit spent part of the month of January in Atlantic City.

Doctor A. N. Collins of Detroit spent the greater part of January in California looking after a very sick patient.

On January 18, 1921, Doctor C. Hollister Judd was re-elected President of the Medical Board of the Women's Hospital, Detroit.

January 18th, Doctor James Inches, Police Commissioner of Detroit, was elected a Director of the Detroit Athletic Club.

Doctor T. A. McGraw of Detroit spent Xmas at the winter home of his daughter, Mrs. Clarence Lightner, at Tryon, N. C.

The commission investigating the Dr. T. J. Gover cancer cure, of Montreal, report the utter uselessness of that alleged remedy.

Doctor H. W. Torrey is playing squash on the Detroit Athletic Club B team this year.

On January 12th a daughter was born to Doctor and Mrs. C. D. Brooks of Detroit.

Dr. A. B. Smith of Grand Rapids is spending the winter in California.

St. Mary's Hospital, Grand Rapids, has created an Out Patient Department.

Dr. J. W. Moore will resume practice in Calumet.

Dr. E. C. Dunning has located in Marcellus.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. Secretaries are urged to send in these reports promptly

BAY COUNTY.

Our annual meeting occurred Dec. 13, 1920, at which the following officers were elected for year 1921.

President—Dr. G. W. Mc Dowell, 815 Garfield St., Bay City, Mich.

Vice President—Dr. A. J. Zaremba, 112 South Madison, Bay City, Mich.

Secretary-Treasurer—L. Fernald Foster, Shareroff building, Bay City.

1st Delegate—Dr. R. E. Scrafford, Davidson building, Bay City.

2nd Delegate—Dr. M. Gallagher, 620 Monroe, Bay City.

1st Alternate—Dr. R. C. Perkins, Davidson building, Bay City.

2nd Alternate—Dr. Fred S. Baird, Davidson building, Bay City.

Medico-Legal Committee—Dr. T. A. Baird, Bay City.

The Programme Committee reported unfavorably on inviting any clinical teams at this time to visit and address Bay County Medical Society, according to schedule; but, rather to bend every effort in harmony with the State officers of making the State meeting a grand success. Each member of Bay County Medical Society holds himself in readiness, as to time and work, to cooperate in all particulars with the State Medical Society officials for the Annual Meeting of the Michigan State Medical Society in Bay City, 1921.

Dr. M. Gallagher.

GENESEE COUNTY.

At the meeting of the Genessee County Medical Society, held Dec. 15, 1920, Dr. R. E. Balch gave a splendid review of the subject of "Duodenal Ulcer." His address was well illustrated by lantern slides and evoked an interesting discussion.

At the meeting of Wednesday, Jan. 5, an interesting letter was read from one of our oldest members, Dr. C. W. Goff, of Montrose. The Doctor is 76 years of age and has been continuously in the active practice of medicine for 52 years. A letter of congratulation was sent to him and he was elected an honorary member of the Society.

Dr. B. L. Jones, of Detroit, spoke on the "Diagnosis and Treatment of Neuro-Syphilis." Of particular interest were the points he brought out in the differential diagnosis. He made a plea for routine Wasserman tests in all examinations, and for examination of the cerebrospinal fluid in every case having a positive Wassermann.

The Clinical Section of the Genesee County Medical Society met Wed. Jan. 12th. Dr. Ray Morrish presented a case of Diaphragamatic Hernia the stomach, jejunum and Colon showing in the left chest. Dr. Lafen Jones spoke on the Schick Test and the Toxin- Antitoxin method of producing immunity in diphtheria. Dr. M. W. Clift spoke on the Uses and Limitations of X-Rays in Diagnosis. He illustrated his subject by fine slides.

The Society met for noon luncheon at the Hotel Durant Wed. Jan. 19th. President Orr presiding. Dr. Geo. Pratt of Flint with the assistance of two psychologists from the city schools gave a clinic on "Feeble Mindedness in Childhood." Practical demonstrations of the Binet-Simon Test were given. That our Society is very much alive was shown by the fact that our attendance was over 70 at this meeting.

W. H. Marshall, Sec'y.

GRAND TRAVERSE-LEELANAU COUNTY.

The regular monthly meeting of the Grand Traverse-Leelanau County Medical Society was held December 7, 1920, in Traverse City, at 8 p. m.

President J. W. Gaunlett, presiding.

The following members were present: Drs. Swanton, Wilhelm, Kyselka, Gauntlett, Henricks, Holdsworth, Swartz, Minor, Sladek and Holiday.

The following officers were elected for the ensuing year:

President—H. B. Kyselka, Traverse City.

Vice President—Alfred C. Wilhelm, Grawn.

Secretary-Treasurer—E. F. Sladek, Traverse City.

Medico-Legal—J. B. Martin, Traverse City.

The retiring Secretary-Treasurer read his annual report in which he pointed with pride to the fact that the April meeting of the Society served as a starting point for the formation of the North-Western Michigan Clinical Association, which has subsequently held two interesting meetings. This Association has already served its purpose in bringing together the physicians of North western Michigan and in bringing to them the latest advances in medicine and surgery.

An informal discussion then took place of diphtheria, including its diagnosis, use of the Shick Test, toxin-antitoxin, and the dosage of antitoxin.

The newly elected president then invited the members of the Society to a banquet to be held just before the next meeting. This invitation was unanimously accepted by the members.

The meeting then adjourned until the evening of January 4, 1921.

E. F. Sladek, Secretary-Treasurer.

GRATIOT-ISABELLA-CLARE COUNTY

We held our first regional clinic meeting today. We had team No. 14 from Grand Rapids, composed of Doctors C. H. Johnston, Wm. Veenboer, G. S. Brotherhood and V. M. Moore. Subject Pneumonia and Empyema. Dr. Veenboer took up the surgical aspect of the subject, illustrating his talk by the use of lantern slides. Dr. Moore covered the X-Ray side of the subject, also using lantern slides. Dr. Brotherhood gave a very interesting talk from the laboratory standpoint and Doctor Johnston gave an instructive talk on the diagnosis and treatment.

We had a little better than average turnout and we heard many expressions of satisfaction with the meeting.

We believe this team work plan a good one, and think the attendance will improve as the quality of these meetings becomes better known.

There are always a number of physicians in the smaller towns who are fairly busy, they get in the habit of sticking close to their business and the longer they do it the closer they stick. There are the ones that are hard to get out. What to do to change their ways is a problem. No one plan will change all of them. As Doctor Manwaring said to me a number of years ago "Some have to be born again."

E. M. Highfield, Secretary.

HILLSDALE COUNTY.

Our annual meeting of the Hillsdale County Medical Society was postponed for one reason and another until the 17th and my answer to your letter of the 18th (which by the way has just reached me) may include my report of the meeting. I am enclosing one of the notices with program, etc. An unusually large attendance was had, for this county, some twenty or more out of a possible thirty-four. A notice was sent out to every eligible physician in the county. The question of dues came up early, but although we had an enthusiastic meeting and most instructive and profitable to all, I regret to say that several slipped away before the time came for payment of dues and admission of new members. As it is, I am only able to report seventeen as having paid their dues although there are several whom we confidently expect to have with us on the list who are not there yet.

Mr. Young gave a most interesting talk on "Laboratory work and the demonstration of the Schick test" and called our attention to the proposed legislation on the bills for the transfer of the Bureau of Vital Statistics to the Department of Health, for the creation of a county full time health officer in each county, and for the free distribution by the state of toxin antitoxin vaccine serums and Schick test materials from the State Laboratories.

The Society voted unanimously in favor of all these bills and against any legislation looking to "Compulsory Health Insurance" in any form, instructing the secretary to communicate our views to the members of the state legislature now in session, at once.

I find some complaint of the increased dues, as we were obliged to add another dollar to the dues, for the use of the County Society, making $6 in all. Will you kindly send me some account of the functioning of the "Medico-Legal Committee" and its results for use in drawing members into the society? Also any other literature that you may have. Will promptly come to the aid of the State Society with the Legislature.

We hope to have our regular quarterly meeting this year which will bring our next meeting sometime near the middle of April. We wish to be on your list for the Regional Clinic Teams and will make a request for same in ample time.

The Hillsdale County Society elected officers for the present year:

President—T. H. E. Bell, Reading.

Vice President—G. R. Hanke, Ransom.

Secretary-Treasurer—D. W. Fenton, Reading.

I omitted to state in the proper place that Dr. Doty's report of the recent outbreak of typhoid fever in Hillsdale in connection with Dr. Young's lecture was most instructive as Mr. Young was one of the men on the field at the time.

I send on another sheet the names of the members now paid in for 1921. Will gladly answer any questions you may wish to ask.

D. W. Fenton, Sec'y

KENT COUNTY.

A special meeting of the Kent County Medical Society to discuss Health Insurance and the proposed legislation pending was held at the Peninsular Club on the evening of January 5th.

The meeting was called by Councillor Dr. W. J. DuBois, and included representatives from all counties in the fifth district. Preceding the meeting, a banquet was served, giving a welcome opportunity for renewing old acquaintances. Unfortunately the state President, Dr. Angus McLean, was unable to be present, but his colleague, Dr. J. C. Kennedy of Detroit, gave a most excellent address, pointing clearly to the work confronting the profession if it wishes to kill the vicious legislation which is to be advocated before the present meeting of the state legislative bodies. The discussion which followed was participated in by many from a distance and showed that the profession is following the subject closely and is fully alive to the results which have followed in other countries from adoption of Health Insurance.

The first meeting of the society for 1921 was held on the evening of Jan. 12, 1921, with an attendance of 115. The subject for the evening was "Focal Infection" and was presented by a team headed by Dr. Wm. Northrup of Grand Rapids. Dr. Ferris N. Smith of Grand Rapids, spoke on "Focal Infection in Relation to Tonsils and Sinuses." He was followed by Dr. Carl D. Camp of Ann Arbor, who spoke on "Some Neurological Conditions Arising from Focal Infections." Dr. Uretsky of Grand Rapids spoke on "Relative Infection of the Teeth in Different Periods of Life. The next speaker was Dr. F. J. Sladen of Detroit, whose subject was "Evidence of Systemic Infection Arising from Focal Infection." Dr. Thos. L. Hills of Grand Rapids, for the laboratory, spoke on "Methods of Isolation and Determination of Organisms in Infected Teeth and Tonsils." Dr. Crane of Kalamazoo, took as his theme "X-Ray Findings in Focal Infection." Dr. R. R. Smith of Grand Rapids, spoke on "The Gall-bladder in Relation to Focal Infection." The team captain, Dr. Wm. Northrup closed with a review: "A Few Important Things With Regard to Focal Infection." A better presentation of the subject would be hard to imagine, taken as it was from every conceivable angle, and the lively discussion showed clearly the interest evoked.

Frank C. Kinsey, Secretary.

KALAMAZOO ACADEMY OF MEDICINE.

The annual meeting of the Kalamazoo Academy of Medicine was held December 15th.

The afternoon meeting consisted of an exaugural address by President Walter den Bleyker subject being "Double Salpingectomy for Pelvic Gonorrhea with report of ten cases with microscopic examination of vaginal discharges." And an address by Dr. Jos. Miller of Chicago on "Our present conception of Bronchial Asthma."

The following officers were elected for the ensuing year:

President—Dr. J. H. Van Ness, Allegan.

1st Vice President—Dr. R. A. Morter, Kalamazoo.

2nd Vice President—Dr. O. D. Hudnutt, Otsego.

3rd Vice President—Dr. W. F. Young, Lawton.

Treasurer—Dr. G. L. Bliss, Kalamazoo.

Delegates to State Society:

Dr. W. E. Collins, Kalamazoo.
Dr. O. M. Vaughan, Jr., Covert.
Dr. C. E. Boys, Kalamazoo.

Alternates to State Society:

Dr. L. V. Rogers, Galesburg.
Dr. N. L. Goodrich, South Haven.
Dr. Dan H. Eaton, Kalamazoo.

Censors:

Dr. G. F. Inch—3 years.
Dr. F. C. Penoyar—3 years.

The term of Secretary being three years, Dr. B. A. Shepard has yet one more year to serve.

At 6:30 o'clock a banquet was held in the Park-American Hotel which was attended by the Doctors and their wives. Principal address was by Dr. V. C. Vaughn of Ann Arbor on "The relation between the Medical Profession and the Public."

B. A. Shepard, Secretary.

MUSKEGON COUNTY.

The first meeting of the Muskegon County Medical Society of the year 1921 was held Jan. 7th at the offices of Drs. LeFevre and Thornton, with President, Dr. Cramer, presiding. The meeting was turned over entirely to the discussion of State Medicine and Health Insurance. Dr. Addison, City Health Officer, gave an address on the subject, after which it was discussed by many members of the Society. The Society appointed a committee of Drs. LeFevre, Busard, and Colignon to co-operate with the State Society in this matter.

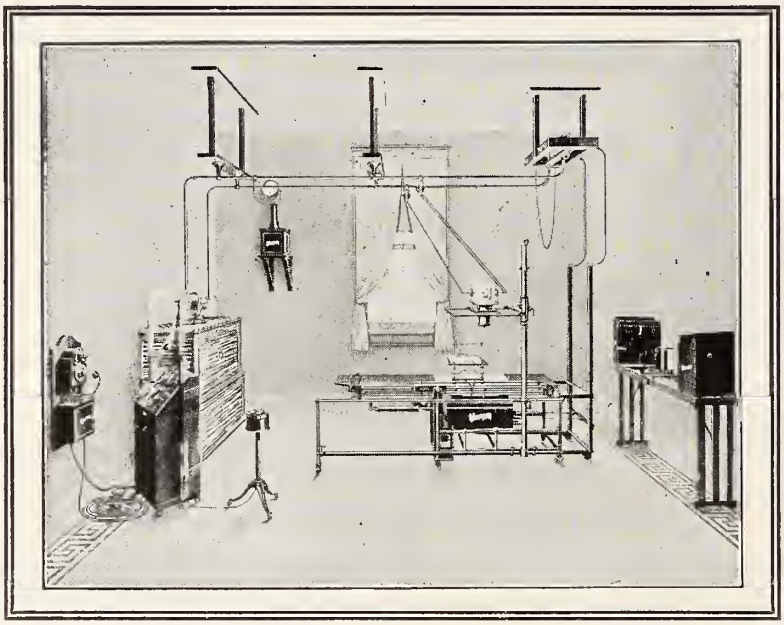
All doctors in Muskegon County are now using the caduceus on the front of their automobiles, by request of the City Manager.

Dr. Swartout of Muskegon was admitted to membership.

The meetings for the year will be held bimonthly.

E. S. Thornton, Secretary.

VICTOR



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Original Articles

THE CASE OF THE DRUG ADDICT.

IRWIN H. NEFF, M.D.
DETROIT, MICH.

It is not considered good form to begin a paper with an apology but perhaps some excuse should be offered to the society for bringing before it a question which although unanswered has been worn threadbare by numerous discussions.

I am taking this opportunity to submit some suggestions with the hope that the interest of the medical profession in this important health question may be revived.

The Narcotic drug problem should be properly viewed from four angles, it has its medical, social, legislative and judicial viewpoints; and in order to comprehend the question in entirety it is necessary for one to have an intimate knowledge of the composite view.

If we wish to standardize our treatment of these cases it is essential that we have reliable information from authoritative sources, we should admit that valuable work has been done and is still being done to supply data which might serve as working capital, but we must also acknowlede that much of this information is subject to controversy and that therefore we have not been able to recommend any well oranized plan which would satisfactorily care for this type of individuals.

The importance of the question from a medical point of view can not be disputed and it is our duty to inaugurate a program which will be sufficiently elastic to permit of its universal adoption.

An attempt to estimate the extent of drug addiction was made by the U. S. Internal revenue department in 1919 and their published report gives as a conservative estimate that at that time the number of drug addicts in this country exceeded one million; this number may be accepted as our only available reliable figure. Single investigations in the several states apart from the governmental survey, allowing for local exceptions have shown a uniformity in the number of addicts to the per cent. of population.

Prior to the enactment of the Federal Narcotic law, interest in the drug question was sporadic and with difficulty sustained; coincident with the passage of the bill and the resulting publicity a more concerted action developed; states enacted new laws or modified existing ones referring to drug traffic, municipalities became interested and Nation and State wide concern was expressed that this menace to the public if unchecked would lead to impairment of the Nation's health and in other ways contribute to improverishment and economic loss.

Our experience during the years the Harrison law has been in effect has shown defects in the medical construction of the law which would not have existed if the medical profession had manifested the interest in the subject which they now manifest.

There can be no doubt that since the date of their introduction that the consumption of Narcotic drugs has increased, whether this increase is a real increase in the number of drug users or whether it is due to the fact that State and Government vigilance by making it more difficult to procure drugs, is bringing the individual drug user into greater prominence, is still a disputed question. My personal opinion is that the reported increase is not general and is more apparent than real. A considerable per cent. of the number of drug victims are migratory, flocking to the locality where the drug is prevalent, the enforcement of the drug laws in different localities and the emmigration of the drug user is responsible to a great extent for the reported increase of drug addiction in definite geographical areas.

The dope fiend" as the general public understand him is an object of distrust, anti-social and in many cases a criminal. He is credited with having a mental and moral warp prejudicial to any material improvement, and if dis-

*Read at a meeting of the Wayne County Medical Society, January 3, 1921.

ease is admitted by these extremists, the condition is declared to be a disease through the fault of the drug user for which they believe he should be held responsible. The believers in this theory are content with the idea that legislation will control drug usage and advise punishment for disobedience if such laws are violated, a fallacious reasoning as we shall see and one unsupported by facts.

Heretofore, the medical profession has been remiss as we have been content to play as it were a secondary part in the initiation of preventive measures and remedial treatment, allowing ourselves to believe that legislation alone would be a sufficient deterrent. A considerable number of physicians have registered their disapproval of the Federal Narcotic law as it is now exercised, but we must confess that we have taken little part in any constructive program to give medical publicity to this important health question, leaving it in the hands of the law makers and criminologist. In justice to those concerned in framing the laws regulating drug dispensing and drug traffic, we should admit that the Harrison law as originally enacted was a good beginning, a foundation for preventive medical work. I doubt whether those who prepared the law considered it, more than this, we, as physicians, should recognize that legislation will not cure drug addiction, and appreciate that the responsibility of inaugurating and standardizing treatment for narcotism rests upon us. Any method of approach to the solution of the problem must be made with a knowledge of the medical conception of the condition and any method proposed for the alleviation of the situation should be undertaken with a knowledge of the complexities which must be simplified before we can institute a regulation form of care and treatment.

THE DRUG ADDICT.

The make-up and personality of the patient should be the primary consideration, interdependent is the causation complications, and factors which would retard convalesence, this is a fundamental law related to any pathological complex. We must admit that in many instances when called upon to treat these cases, we have disregarded this requisite, we have treated the expression of the weakness, the drug taking, and have failed to administer to the antecedent neuropathic state or to the existing physical disease.

It has often been asked whether drug inebriety can be considered a disease. This has been questioned as the term disease has never been accurately defined, wether we accept the theory that drug addiction once established is due to an antidotal toxic substance in the blood, or whether we regard it as a manifestation of an inherent defect with an unknown pathology is foreign to our present consideration, it is sufficient to recognize drug addiction as the name of a clinical syndrome, requiring an accurate differentiation and a specialized and distinctive treatment directed to the individual case. Differentiation as a diagnostic measure comprises all investigations of the patient to complete the clinical picture of the individual case; it includes a scheme for the complete physical examination with psychometric and other mental tests which will establish the true mental and physical status of the patient, although in a general way the plan of examination corresponds with that for an ordinary morbid state we should remember that we are investigating a distinctive syndrome.

For clinical purposes we may consider that drug addiction is a symptom complex, not a clinical entity, the drug taking episcodical and precipitated by exciting causes of physical or mental origin, given a susceptible subject crises may develop after any marked departure from ordinary routine (mental) or any disturbance of organic nature (physical). By the acceptance of this theory as a working basis we can readily appreciate the vagaries and inconsistencies which are so pronounced in the drug user and we will be able to meet the symptoms with a better understanding as to the underlying causes. If we recognize this description of the drug addict we are prepared to oppose those who would conveniently label the syndrome a "habit" which can be corrected by the patient; there can be no argument as to the habit of mannerism, however, the believers in such a theory are faulty in their reasoning as they fail to recognize the importance of valueing the neurotic state responsible for the habit.

TREATMENT.

When the Harrison drug law was enacted and was put into effect it automatically stopped the supply of drugs to the addict through the ordinary channels, mitigating against this Federal act are the following defects, (a) it did not stop the drug users physiologic need, (b) it did not provide appropriate medical treatment for the removal of the need. The Federal law would have been more effective if proper provision for the care and treatment of the individual case had been made when the original law was drafted. Until recently the several amendments to the law have referred more particularly to enforcement and provisions for abolishing illegal traffic.

Senate Bill No. 2785, introduced in the National Senate, August 15, 1919, from the legislative side is a commendable effort in the right direction the text of the bill which briefly expressed, is to provide aid from the United States for the several states in prevention and control of drug addiction and the care and treatment of drug addicts, and for other purposes is commendable and the bill may be considered as a public health measure and worthy of the support of the medical profession. I am informed that the bill was reported out by the committee on public health on October 1, 1919. With the recommendation that the bill be passed with certain amendments. The bill at this writing is on the Senate calendar.

Legislation, however, is not a therapeutic measure and should not be considered a substitute for medical treatment, however constructive legislation may be, it will accomplish but little without the co-operation of the medical profession. We should meet the proposition squarely, acknowledging it to be our duty to establish a program sufficiently comprehensive to satisfactorily care for all forms of drug addiction.

Before discussing the medical treatment per se I will at the risk of repetition, refer again to the patient, as much of our ill success in these cases is attributable to our failure to recognize the personality of our medical client. The points I wish to emphasize are these, that when we are treating narcotism we are treating three conditions, viz (1) the drug usage, which may be considered the mannerism of the malady and (2) the neuropathy or psychopathy of the individual, the underlying cause responsible for the condition, and (3) complicating physical disease.

Habitual narcotism is an expression of a defect which is in-born, never acquired. This dedefect as it relates to the drug taking is a lowered resistance to the influence of drugs, just as the bodily system of some persons offers lowered resistance which is inherited to the bacillus tuberculosis. Another analogy is seen in the idiosyncrasies which some persons manifest to drugs which are used for medical effects. Like other psycho neurotics for the drug user (habitual) is a psycho neurotic we find when we make our analysis a multiplicity of nervous and mental symptoms which antedate the narcotism, the symptoms due to the use of the drug, and the consequent intoxication is merely an expression of the defect, the result of the inefficiency of the psycho neurotic. In order to combat this double syndrome which we call drug addiction, we must primarily appreciate the personality of the patient, eventually directing our treatment (1) to the existing defect, (2) to the habit, viz., drug using. The group of symptoms which we call narcotism does not differ materially from the clinical picture of many of the neuroses and psycho-neuroses, in both instances we have well defined nervous instability and engrafted on this fertile soil we have mannerisms and habits which are manifested in a mild or exaggerated form.

The failure to recognize this underlying cause in its formative or incipient stage, and institute appropriate preventive and curative measures, is in a degree responsible for a considerable number of drug addicts who eventually become social outcasts. Recognizing that the habitual drug user is pathologic, we should approach him not with the idea that drastic measures will help him, but with an understanding that a well organized method directed to his individual case is indicated.

Such work is both preventive and remedial and may be considered medico-social work of the greatest importance.

Appreciating the truism viz., that morphinism is really a complex viz. a neurotic inefficiency plus one of its expressions, drug taking we are prepared to accept the assertion that there can be no general or specific cure for drug addiction.

As is well known, the customary method of treatment relates to the technic of the withdrawal of the drug and a definite method is selected for this purpose; such a practice is commendatory as the initial step is the control of the drug intake, unfortunately, in many cases the personality of the patient is ignored and psycho-therapeutic treatment is neglected; this mental treatment of the patient is essential if we aim to secure the maximum success, one other factor not infrequently overlooked by the physician is the necessity for individualization and a realization that "group method of handling these individuals is wrong in principle and practice. "Every case a law unto itself," should be our slogan, the determination of the average daily amount of drug required, the selection of the method for the withdrawal of the drug, the election of a hospital for the patient, and lastly the treatment during convalescence, including psycho-therapeutic measures depends on the practice of this therapeutic principle.

The modern treatment of drug inebriety consists, (1) in getting the patient interested in himself, and (2) in encouraging him to sustain this self interest in his defect. The successful treatment of drug addiction has a three-fold principle, a physiological life, abstention from

drugs, and the institution of moral and educational measures.

Morphinism and other forms of drug habituation have mental and physical syndromes, if a patient is free from organic disease, recovery from the physical symptoms incidental to the drug addiction is a matter of comparatively short time. However, the mental training required to prevent a relapse requires a certain mentality and a longer period of time.

The number of drug addicts in the United States in 1919, taking the estimated population of 106 million was 1,338,000. This figure is again given in order to establish (a) a practical reason for the promotion of a definite plan for the treatment of drug addiction, (b) to emphasize the fact that an individual who by reason of mental or physical disease acquiring the use of narcotics is entitled to all benefits possible from medical skill and practice. My personal knowledge and analysis of 5,000 cases of drug addiction during the past ten years has shown that over 59 per cent. of these patients exhibited mental, nervous or physical defects, which antedated the use of the drugs; certainly a strong argument for the proper handling of these cases.

Realizing the need for such work we should demand that in every locality that there be established facilities for laboratory work, investigation, and treatment, namely (1) a hospital for necessary laboratory work and treatment (2) a state-wide out-patient department providing for (a) medical and social work, (b) facilities for educational purposes, (c) proper extension of the rehabilitation work inaugurated at the hospital.

Thus far the suggestions offered for treatment refer more distinctively to the social users of drugs, of which there are approximately 70 per cent. although we might dismiss the remaining 30 per cent. of the number of drug users as belonging to the criminal class, and related to criminology, as physicians we are obligated to prescribe for them a method of treatment consistent with our findings; defective delinquents cannot be cared for or treated successfully in a general hospital or by methods designed for the treatment of the frank, non-criminal case. Such cases should be cared for in an institution with adequate equipment and appropriate disciplinary control. My personal investigation of local jails and houses of correction justifies me in making the statement that with few exceptions drug addicts receive but little if any medical treatment for drug addiction, while awaiting trial or undergoing sentence.

Any program to better conditions and to lessen the cost to the state of drug addiction and of crimes related to it, must consider both prevention and cure. The prevention of drug taking has its source not only in the diminished production of opium and its regulated sale and distribution, but quite as much in the construction of healthy bodies, well balanced minds, high moral standards, and strong minded wills over which drugs can have no power. Until these ideal constructive measures can be brought about certain types of men and women whose minds and bodies are impoverished will find some means of intoxication. However, certain measures for the cure or amelioration of drug inebriety are practical immediately, to attain this end it is necessary to discover the curable case and give him specialized treatment, and detect the criminal drug user in order that he may be given the custodial care which his case demands.

Recognizing that habitual drug using is pathologic, we should approach the problem not with the idea that drastic measures or legislation can check it, but rather with the understanding that an organized and well conducted method is alone appropriate.

The measures appropriate for the proper handling of the habitual drug case are as follows:

1. In every community there should be a centralized bureau, preferably the state board of health; the department thus created, should have complete control of the drug situation viz the prescribing and distribution of narcotic drugs, and the election of institutional care if such should be expedient. The state board of health acting in this capacity should in every way co-operate with the Federal Government.

2. This recommendation does not in any way prohibit the individual right of the physician to prescribe; such prescriptions should be filled by druggists or agents authorized by the controlling board, the original prescription or a copy thereof becoming automatically a permanent record of said board.

3. Every state should set aside a hospital area or areas, properly supervised and equipped for the care and treatment of cases of narcotism. These hospitals should furnish not only the distinctive mental and physical treatment which the drug case is entitled to, but should provide for and maintain a well organized medical and sociological out-patient staff, which would not only extend the educational treatment begun at the hospital, but which would have as an important function, state wide spread preventive and educational work.

Such hospitals and the related state wide clinics should be supervised and controlled by physicians as directed by the controlling bureau.

SUMMARY.

1. The habitual drug user is a neurotic, and the fundamental traits of this condition are dominant factors in his personality or make-up; this inefficiency, a constitutional inferiority, antedates the drug taking which may be rightly considered an expression or mannerism of the defect.

2. Approximately 70 per cent of all cases of drug addiction are frank cases purely antisocial, without a criminal history; the remaining 30 per cent. are irresponsible and vicious, and may properly be classed as criminal recidivists; manifestly these two permissable groups require different methods of treatment.

3. For clinical purposes two groups of drug addicts are admissible, the primary or larger group comprising 70 per cent. exhibit no criminal tendencies, the smaller or secondary group embracing the remaining 30 per cent. are inherently criminal and are not responsive to treatment. The treatment of the two groups should be consistent with the findings in the individual case; generally speaking the non-criminal group requires a minimum hospital residence, with maximum psycho-therapeutic treatment, while the criminal drug user demands more prolonged institutional care and more exacting discipline.

4. The treatment of narcotism consists of two factors: (a) the withdrawal of the drug; (b) the institution of psycho-therapeutic measures, directed to the individual case.

5. While the present Federal narcotic law is in force, it is recommended that the dispensing of all narcotics as described by the Harrison law, be controlled and authorized by a central bureau, preferably the State Board of Health, and that such administrative agency co-operate in every particular with the medical profession and the Federal Government.

6. The problem is a public health question of great importance and pending the enactment of an international law regulating the production and disposition of opium and its derivities the question of individual application of any narcotic law should be relegated to the physician who must necessarily conform to any existing law regulating the dispensing of narcotics.

7. The medical profession, when assuming such responsibilities must recognize the importance of the task and try to secure legislation which will not handicap the physician in performing his duty to his patient and to the public in general.

A SECOND PUBLICATION ON ULTRA VIOLET RAY THERAPY WITH CASE HISTORIES.

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In September of 1920, the author published a short paper entitled "Ultra Violet Ray Therapy" in which he very briefly reviewed the history and the opinion of various authors concerning light therapy. His opinions and deductions were based on 2,275 treatments given. Since then he has given more than 1,500 treatments.

In this paper he wishes to present a few case histories.

Mrs. M.: Age 65 years, married, has four healthy adult children. Has suffered for past ten years with chronic rheumatism, all finger joints are moderately deformed, wrists, elbows and shoulder joints have been involved, at present not envolved. Left knee is swollen, thickened and has lost 75 per cent. of motion, is unable to bend over. Patient has moderately large, chronically infected tonsils, also a chronic myocarditis with a mitral regurgitation. Patient has been under continuous care for past 10 years, using stock and autogenous vaccines, diet, many different drugs internally. Hydrotherapy, etc., high frequency, D'Arsonval currents, etc., etc.

After ten weeks of ultra violet ray treatment, patient is in much better condition than at any previous time during the past ten years. She can bend better, clean cupboards, etc., and is practically free from pain.

Treatment: Tonsils and sinuses treated with Kromayer lamp, applying the rays directly on the tonsils and deep into the nostrils. The entire body was exposed to the Alpine sun lamp and Radio-Vitant lamps. In all, 21 treatments were given.

During most of the treatment no medicine was given.

Case 2. Mrs. B.: Age 42, married, one child. Two miscarriages due to hyperthyroidism. Wassermann negative, diagnosis of Addison's disease made 18 months ago in Washington, D. C., Hay fever for 20 years.

March 19, 1920: Patient starts treatment for severe sacroiliac strain accompanied by neutritis. She also presents lichen planus on both wrists, forearms, on neck and both legs. The severe itching prevents sleep. The left maxillary and right frontal sinuses are tender on pressure and there is slight soreness in both tonsils.

A slight leucorrhoea is present, menstruation

accentuates back pain and sciatica, and is accompanied by nervous headaches which necessitate her lying down.

Treatment: Canvas web compression belt to relieve back strain, broad, sensible shoes, back pads placed in chair and bed to support curve of back; 2 cups of hot water morning and night with one cake of Fleischmann's yeast morning and night to keep the intestinal tract clean. Alpine and heat lamp over back, electrical vibration of back twice a week.

May 14, 1920: Pain in back when tight corset is not worn, moderate general improvement, less nervous.

June 15, 1920: Has had two treatments with Kromayer lamp which completely relieved rose fever, and sinuses are free from pain. Has had several general body treatments with Alpine lamp which has cured the lichen planus. General health is much better, sacro-iliac pain and sciatic neuritis cured. Stops treatment.

August 31, 1920: Mild attack of hay fever appears. Great improvement over former years. General health is good; a patch of lichen planus has reappeared on wrist. Symptoms all relieved with a few general body Alpine and local Kromayer treatments. Menstrual periods now are normal, no headache.

October 11, 1920: Left sacro-iliac pain and left sciatic neuritis for past week. An additional 4 inch belt applied superior to present belt. General health excellent. General Alpine treatments to October 26th relieves all symptoms.

January 6th, 1921: Lichen planus has reappeared on wrist and a dollar sized patch is present at left anterior axillary line. She feels nervous. No more backache or sciatic neuritis, menstrual periods are "perfect," no sinus trouble. General Alpine and Kromayer locally to patches of lichen planus relieve itching and lessen nervousness. Rapid abatement of nervousness and complete cleaning up of lichen planus.

Case 3. May 22, 1920: Mrs. C., age 33, married, one child, no miscarriages.

Dr. Evans reports that stereoscopic X-ray plates were made showing the lower lumbar and sacro-iliac region. There is a sacro-iliac asymmetry without evidence of sacro-iliac irritation. There are shadows of lime density on the right side opposite the fourth and fifth lumbar segments, probably calcified peritoneal glands. There is lumbo sacral pathology, there being increased density about the articulation of the fifth lumbar with the sacrum. The angles of the fifth show bony overgrowth, especially at the upper angle. Symmetrical facets between the fourth and fifth segments.

Rectal examination negative. Vaginal examination reveals large tear of the cervix, uterus and adnexa normal. A constant leucorrhoeic discharge which produces a pruitis with intense itching.

Heart, lungs, abdomen negative. Tonsils were removed "20 years ago." Has had six attacks of tonsilitis in the past 4 years.

General examination reveals an exceptionally healthy well built Scotch woman 5 feet 6 inches tall, weight 165 pounds. There apparently is no asymmetry. Pain in lower sacro-iliac region is so severe that patient has great difficulty in disrobing. In having her lie down on operating table, a step ladder was needed, with one person compressing sacro-iliac region while a second person swung the lower extremities on the table. No attempt was made to examine mobility of spine or hips on account of pain.

The entire body was intensely rayed with radiant lamp and the Alpine sun lamp. The back was thoroughly vibrated and a counter irritant ointment worked into back. A prolonged vaginal and rectal treatment with Kromayer lamp given, genitalia also rayed which immediately stopped the itching from the pruitis.

All pain was removed during the first treatment. On resuming her feet a light sacro-iliac belt was applied over her corset which was laced correctly. Proper supporting pads for chair and bed were ordered and patient told how to protect her back. Ten glasses of hot water per day and two cakes of yeast prescribed as medicine.

May 24, 1920: Patient takes second treatment. A marvelous improvement in her opinion. Leucorrhoea practically well, very little pain.

Treatments on May 25th and 26th, 1920; Pain entirely relieved and leucorrhoea stopped. Patient attends a Scotch picnic.

July 17, 1920: Free from pain until yesterday. She lifted a wash tub and strained her back. A fifth treatment was given which relieved all pain.

A letter from the patient several months later states that she remained well.

Case 4. October 18, 1920: Mr. P., age 50, carpenter. Colles fracture of right radius.

Brachial plexus blocked with one-half of 1 per cent. of novocaine, injecting the nerves above the clavicle. Local anesthesia circuminjected at point of fracture. Anesthesia perfect. Patient and splints taken to Dr. Evans' office where perfect reduction in both planes were made under fluoroscope. Splints were applied, plates taken. Dr. Evans' report: "We note a fracture through the lower end of the radius, with satisfactory alignment of the fragments in both planes."

After-treatment: During following 4 weeks patient had 17 office treatments. There was no soreness or pain after first 48 hours. At each treatment splints were removed, patient baked with Radio-Vitant and Alpine lamps, electrical vibration, manual manipulation and high frequency electricity used. On the 15th day patient strapped a razor and shaved self with the right hand, i. e., the broken wrist hand. At the end of four weeks he returned to work. He wears a leather wristlet. Eight weeks following injury he called at the office, stating that he was working full time, but that pounding spikes jarred his wrist. He believes that 100 per cent. function will return.

Case 5. Mr. K., age 38, married. In July, 1920, 3 left upper molar teeth were extracted. Necrosis of that portion of the alveolar process and superior maxilla ensued, accompanied by pain, bloody discharge, temperature, loss of weight, appetite and strength.

October 10, 1920: Patient begins ultra violet ray treatments. X-ray reveals osteomyelitis. Patient's jaw given 10 minutes intraoral Kromayer lamp application. Entire body treated with Alpine and Radio-Vitant lamps. Normal saline mouth wash, pyorrhoea alveolaris vaccine, 2 cakes of yeast per day and 8 cups of hot water per day prescribed.

The first treatment greatly relieved pain and loosened up a necrotic piece of bone which the patient worked out with his tongue.

October 13, 1920: A more intensive treatment given. Less pain, another piece of necrotic bone removed, marked improvement in general health.

October 16, 1920: Third treatment more intensive, a third piece of bone extended.

October 25, 1920: Fourth and last treatment. The last piece of necrotic jaw bone came away that night and symptoms ceased.

December 30, 1920: Patient re-examined, no evidence of jaw infection, gums healed, no pain on percussion, general health normal.

Case 5. Mr. W.: Age 30, single. On November 19, 1920, had pain in lumbosacral region due to gonorrhoeal prostatitis following infection of April 1st, 1920. Polyuria, dysuria, fever, "sick all the time." Patient says, "My morale is low."

Treatment: Radiation of entire body with Alpine and Radio-Vitant lights, Kromayer light intra-rectally to prostate and intra-urethrally to posterior urethra. To drink large quantities of water. No other medication.

Treated on November 19, 22, 26, December 3, 10, 17 and 24th. Patient then stated that he was entirely cured.

Case 6. September 8, 1920: Mrs. W., age 38. Infected ingrown toe-nail, right great toe, 3 months duration, unable to wear shoe. Cured in one treatment.

Treatment: Prolonged radiation of leg and foot with Alpine and Radio-Vitant lamps. Great toe treated with Kromayer lamp. Nerves of toe blocked with one-half of 1 per cent. novocaine solution and ingrown portion of nail and matrix excised. Wounds treated with Kromayer lamp. Wounds entirely cured in 4 days. Remains cured.

Case 7. October 20, 1920: Mr. W., age 63. Hit by an automobile, received 13 abrasions on right hand, 5 abrasions and cuts on left hand. Abrasions on chin, tip and bridge of nose. Abrasion 2 inches in diameter on forehead with 1¼ inch cut to skull. Abrasions of scalp. Abrasions and deep bruise of left shoulder and deep upper thorax, accompanied by severe pain on breathing.

Treatment: Entire upper body baked with Alpine and Radio-Vitant lamps. All wounds treated with Kromayer lamp, sterile dressings. High frequency and D'Arsonval current to aid in relieving pain and agitation.

Same treatment on October 21, 22, 23, 25 and 26th. All wounds entirely healed without inflammation, infection or pain, in spite of the street dirt ground into the wounds.

Case 8. November 24, 1920: Mr. S., age 34, height 5 feet 11 inches, weight 255 pounds. Patient was in Dodge sedan which was entirely wrecked by hitting a tree and turning over, down an embankment. The entire body is bruised. Left hip, thigh and upper leg is inky black, lower leg purple. There are seven lacerations thru skin and fat, 1 to 2 inches long, 4 area's where skin is brushed off. Right hip and thigh purple. Tip of right elbow has skin and subcutaneous tissues "brushed off" as cleanly as if excised. Both wrist and hands very lame. Patient unable to undress himself for treatment.

Treatment: Entire body thoroughly baked with Alpine and Radio-Vitant lamps, D'Arsonval and high frequency current applied.

After ninety minutes of treatment patient felt much better, dressed himself alone, putting on shoes, overcoat, etc.

November 26, 1920: Patient is greatly improved, all wounds are clean and will heal without infection. Inky blackness of thigh not so marked. Prolonged general treatment given, Kromayer lamp being used on the wounds.

November 29, 1920: Very marked improvement from each prolonged treatment. Wounds healing nicely.

December 13, 1920: Fourth and last treatment. All wounds solidly healed. Left thigh slightly discolored. Slight stiffness remains. This 255 pound man continued at work as vice-present of an automobile concern throughout treatment.

Case 9. February 6, 1920: Mr. P., age 36, married, begins treatment. Operation for appendicitis on January 3, 1920. The appendicial soreness is gone, belching of gas more frequent and severe. Lumbo-sacral iliac for past 18 months, aggravated by operation. Patient is mentally depressed. Wife and two children depend on him. He is in debt and sick.

Treatment: Radiation of entire body with Alpine lamp, canvas web sacro-iliac belt applied over a straight front corset, proper supporting pads for spine when sitting or lying, taught correct posture, proper diet prescribed, constipation relived by drinking 8 cups of hot water each day.

Patient had 15 office treatments, ending on March 19, 1920. He then was entirely free from any symptoms due to back strain, his general health was greatly improved, indigestion better, bowels more regular. He resumed work feeling capable to provide for family and self.

Case 10. November 20, 1920: Mr. C., age 54, height 5 feet 6 inches, weight 235 pounds. Patient is a very rotund retired business man who has lived well.

Dr. Evans' X-ray report: "Plates were made of both feet laterally with the central rays directed thru the os calcis. There is a little extra density at the attachment of the plantar fascia to the os calcis on the right side. We believe that this is a beginning bony spur formation."

For 2 years patient has been unable to obtain relief from pain under the center of the heels. Standing or walking aggravates the pain. Spends considerable time sitting down with feet elevated. This position helped, as it drained the blood from the heels.

Treatment consists of intense radiation to soles of the feet, heels especially, twice a week with

the Kromayer lamp. This relieves pain and greatly benefits the condition.

Case 11. Mr. S., age 30: On November 3, 1920, received a second degree burn of right arm from thumb-tip to elbow, due to gasoline and oil explosion. Large blisters present.

Patient was treated on November 4, 5, 6, 8 and 10th by prolonged exposures to Alpine and Radio-Vitant lamps. Burning and pain immediately removed. Burn dressed with paraffine gauze and a bland ointment. Burn completely healed on November 10, 1920.

This method of treating the above cases seems entirely logical. We are all familiar with the marvelous healing and growing power of sunlight. Adding ultra violet rays intensifies this action. Ultra-violet light penetrates the body like the x-rays. In doing so it is transformed and stimulates the action of the body cells.

Most diseased conditions are associated with a disturbance of the circulation; congestion in one part, anaemia in another. This treatment relieves congestion of internal organs, producing a flushing of the skin and muscles due to dilitation of the blood and lymph vessels. It aids elimination by directly stimulating the sweat glands and reflexly stimulating the spinal centers. Internal congestion is relieved, allowing the liver, kidneys, etc., to carry on their work. Toxic substances in the blood are broken down and the heart and respiratory action is increased.

A CASE OF ALEUKEMIC LEUKEMIA CLINCIALLY RESEMBLING VON JAKSCH'S ANEMIA.*

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In 1889 and 1890, Von Jaksch (1) reported a series of cases of anemia occurring in infants and young children, characterized by splenomegaly, enlargement of the liver, and a blood picture of a very severe anemia with marked increase in the white blood cells and nucleated erythrocytes. Since the time of his publications numerous papers have been written concerning this condition. Von Jaksch believed it to be a special disease entity, peculiar to infants and young children and gave to this condition the name Anemia Infantum Pseudoleukemia. There has been much controversy regarding the etiology and classification of this disease. The view of Dunn (2) is perhaps the best expression of the present opinion concerning this point. He believes that if the term Von Jacksch's anemia be confined to cases of anemia of unknown etiology with full recognition of the fact that exactly the same disease picture can be produced by many known causes, the question of the separate identity of the disease loses its interest and importance. In other words, Von Jaksch's anemia is not a disease, but a syndrome embracing both anemias of known and unknown etiology.

From time to time in the literature cases have been reported of leukemia (demonstrated at necropsy) which during life gave a picture similar to Von Jaksch's anemia. In fact one of Von Jaksch's original cases turned out to be a leukemia at autopsy. Lately, Gordon Ward (3) of London has discussed this point again. He quotes Martinelli (4), an Italian pediatrician, who believes that cases of Von Jaksch's anemia are potentially leukemic. He considers that the preleukemic condition arises from the effect of one of several factors acting on an inherently defective organism, and especially on those of thymo-lymphatic constitution.

Forbes (5) has reported two cases of anemia in children aged 13 and 18 months respectively which clinically correspond to Von Jaksch's anemia. Both children died of bronchopneumonia and at autoposy a picture somewhat resembling leukemia was found. Forbes questions whether these cases should be called Von Jaksch's anemia in which no positive evidence of leukemia is found at autopsy.

Ward (6) writing on Von Jaksch's anemia, states his views as follows: He believes the term pseudo-leukemia infectiva to be essentially correct. The disease occurs between 6 months and 2 years. The onset is gradual and often associated with rickets. The chief symptoms are splenomegaly, emaciation, and anemia. The blood shows a diminution in red cells and hemoglobin. There is a marked increase in nucleated red cells, also an increase in white cells, especially myelocytes and myeloblasts. The disease resists specific treatment, but may be recovered from if infections are removed, otherwise it progresses fatally with death from pneumonia or inanition. There is no tendency to hemorrhage, jaundice or cirrhosis of the liver and he finds that the fragility of the red blood cells is normal.

Ward states that the pathological picture is identical in its nature and its distribution with the lesions of myelogenous leukemia as we see that disease in the adult, but not identical in its

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extent. Foci of abnormal, actively forming red and white cells are found in the liver, spleen and glands. The disease is differentiated from adult leukemia by a different clinical picture and by the fact that the adult forms of leukemia occur in childhood.

In this connection I wish to report a case which during life resembled Von Jaksch's anemia very closely, but at necropsy a picture of leukemia was found.

Charles B., aged 20 months, was admitted to the Pediatric department of the University Hospital, Sept. 21, 1920.

Chief Complaint. "Yellow color" (duration 4 months).

Family History. Child born at the maternity ward of this Hospital. Both mother and child had negative Wassermann reactions at this time.

Birth History. Normal.

Feeding History. Has been fed on cow's milk dilutions up to 1 year. Since then has had general diet. Details unknown except that appetite was always good and child has gained weight.

Past Illnesses. None.

Present Illness. About 4 months ago, June, 1920, the parents noticed that the boy's skin was becoming "yellow." The peculiar color of the skin has been gradually growing more intense. The lips have been getting paler, also the child has been gradually growing weaker and more listless. About one week before admission, the child began to have a fever, height unknown. This has persisted up to the present. Enlargement and tenderness of the abdomen were first noticed at this time. He has been losing weight for at least six weeks. The stools have always been normal and yellowish brown in color. The urine has been a very dark brown since the onset of the illness. There have been no hemorrhages nor any purpuric spots on the skin.

Physical Examination. The patient is a male white child, fairly well developed and nourished. The temperature is 101.4 F, pulse 110, and respirations 25. The child is quite restless and irritable, but is extremely weak and his cry is very feeble. He can not even sit up alone.

Head—Normal size and shape, anterior fontanelle is closed, no prominent bosses or craniotabes.

Nose—Normal, no discharge.

Eyes—Pupils react to light—conjunctivae very pale, sclerae are bluish white in color.

Ears—Tympanic membranes normal.

Mouth—Teeth in good condition, mucous membranes are very pale, throat pale, tonsils not inflamed.

Neck—No rigidity or retraction, no venous pulsations, thyroid normal.

Thorax—Symmetrical, no rosary or Harrison's groove.

Lungs—Clear throughout.

Heart—Apex in the 4th intercostal space ½ cm. to the left of the nipple line. Right border is 1 cm. to right of the sternum. There is a soft blowing systolic murmur, heard over the precordium, but loudest over the pulmonary area. P2 is not accentuated.

Abdomen—Is somewhat full with a prominence in the left upper quadrant. There is no enlargement of the superficial veins. No hernia. The spleen is much enlarged, filling the left upper quadrant and extending 12 cm. below the costal margin in the nipple line. The surface of the spleen is smooth and the splenic tumor is quite hard and firm. The liver is also enlarged and felt 3 cm. below the costal margin in the right nipple line. It also feels hard and smooth. No tenderness found anywhere over the abdomen on palpation. No evidence of any fluid.

Genitals—Negative.

Extremities—Normal in size and shape, no spasm or paralysis. The muscles are quite weak and flabby.

Reflexes—No abnormalities noted.

Glands—No adenopathy.

Skin—The color is quite striking, being of the pale lemon yellow seen in the pernicious anemia of adults. The panniculus is abundant. No hemorrhages or petechiae. There is moderate loss of elasticity of the skin, suggesting a chronic loss in weight.

Laboratory Findings.

Wassermann reaction negative.

Von Pirquet test negative.

Stools negative for ova or parasites.

Urine (only one examination), dark brown in color, negative for albumin, sugar, bile and blood. Microscopic examination negative.

Blood (Sept. 21, 1920.)

Red blood cells 1,560,000.

White blood cells 29,300

Hemoglobin 15 per cent. (Miescher).

The stained smear showed marked polychromatophilia and poikilocytosis.

Differential Count.

Polymorphonuclear neutrophiles	59.3%
Polymorphonuclear basophiles	1.5%
Polymorphonuclear eosinophiles	.5%
Small lymphocytes (small type)	24 %
(large type)	6 %
Large lymphocytes	3.3%
Myelocytes	5.3%

Nucleated Reds.

In counting 200 white cells, 108 nucleated reds were seen of which there were 74 normoblasts, 22 megaloblasts and 16 erythroblasts.

Blood examinations during the next two days were practically the same.

Further Notes. The day after admission the temperature rose to 102 and the respirations to 50. Examination of the lungs showed a few crackling rales at the left base and the breath sounds were slightly higher in pitch. A diagnosis of beginning pneumonia was made.

The following day (Sept. 23,) the condition of the patient became much worse. 80 c. c. of blood was taken from the father and injected into the juglar vein of the child. At this time the pulse was 160 and respirations were 120. A slight improvement was noticed immediately after the transfusion, but the condition soon became worse.

The child became stuporous and died at 5 p. m., Sept 23rd.

Clinical Diagnosis:

(1) Von Jaksch's anemia.
(2) Early Broncho-pneumonia.

Necropsy. (2 hours after death).

Abstracted from the protocol of the Department of Pathology.

Gross Findings. Body is that of a fairly well nourished and developed white child. The paniculus is abundant. No anomalies or deformities. There is a small amount of yellowish fluid in the peritoneal cavity. The spleen is very large, about 5 times the normal in size. It is quite hard and firm, and on section shows an increase in stroma with hypoplastic follicles. The liver is enlarged and on section shows golden yellow pigment at the periphery of the lobules (bile pigment). There is marked hyperplasia of the mesenteric lymph nodes. The bone marrow is hyperplastic. The lungs show congestion and edema. The heart is soft and flabby, the valves are negative. The thymus is normal. Kidneys are negative.

Microscopic Findings:

Heart—Simple atropy, leukemic clots.

Lungs—Marked congestion, edema-hemorrhage, early pneumonia, many of the blood vessels show a leukemic picture.

Thymus—Slight lymphoid hyperplasia.

Spleen—Marked congestion, increase of nucleated forms in the circulating blood, germcenters hypoplastic, many of them exhausted.

Adrenals—Hypoplastic.

Liver—Chronic passive congestion (nutmeg liver), fatty degeneration, atrophy and necrosis of center of lobule. Mononuclear infiltrations of the islands of Glisson, the picture of leukemic infiltration-icterus.

Bone Marrow—Leukemic bone marrow.

Pathological Diagnosis—

1. Early Myelo-lymphatic leukemia.
2. Broncho-pneumonia.
3. Hypoplasia of the adrenals.
4. Icterus.

COMMENT.

This case represents one of the anemias which are clinically grouped under the name of Von Jaksch's anemia. There was no evidence of rickets, nor of syphilis or tuberculosis. It is probably one of the rare forms of leukemia seen in an aleukemic stage, a condition, which would be impossible to diagnose during life unless observed over a long period of time. The case reported here bears a close resemblance to Von Jaksch's first case described in 1889, however, most of the cases called Von Jaksch's anemia show no true leukemic changes at autopsy. I believe that this case would best be described under the title of an aleukemic leukemia presenting Von Jaksch's syndrome and think it would be better to consider such cases as these, as a separate group, one of the types of anemia of unknown etiology, occurring in infants and young children which progresses steadily to a fatal termination in spite of any treatment.

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I wish to thank Dr. D. M. Cowie for the privilege of reporting this case from his service.

MODERN CARE OF THE OBSTETRICAL PATIENT.

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Recently in reading an article by C. H. Davis (1) entitled "Maternal Mortality," I was impressed by the fact that with all the progress made in obstetrics in the past twenty years, the maternal mortality remains far too great. According to statistics quoted by Davis, childbirth is the second greatest cause of death among women between the ages of fifteen to forty-five years. In this same article, statistics taken from the government report and compiled by Grace L. Meigs (2) show that comparing the United States with fifteen foreign countries, Switzerland and Spain have a higher maternal mortality and that our country stands fourteenth on the list. The rate given for the United States is 14.9 per hundred thousand population. A paragraph taken from Grace L. Meig's report is startling, and should be a challenge to every physician in our country who practices obstetrics. She says: "according to the evidence available, these death rates are apparently not decreasing. During the twenty-three years ending in 1913, in this country no definite decrease in the death rate from the diseases caused by pregnancy and confinement can be demonstrated; nor can any decrease in the death rate from puerperal septicemia be shown."

Physicians who in their daily practice, meet women and children cannot fail to see the never ending train of humans, damaged by a physiologic process, namely birth. The mothers come with lacerations, relaxed vaginal outlets, retroversions, prolapsed uteri, cystoceles, rectoceles, adherent pelvic organs, chronic infections, fistulae, urinary and fecal incontinence, paralyses, ilio-sacral disease, traumatic neuritis, mental and nervous disorders directly traceable to

child birth. The children come with fractures, cerebral hemorrhages, birth paralyses, mental inferiority and epilepsy. The responsibility for all of these conditions cannot justly be placed upon the physician, but the problem of reducing this high maternal mortality and of decreasing the number of damaged mothers and children, is ours.

It is not the object of this paper to criticize the physician, for no praise is adequate, no reward too great for the physician who gives careful, conscientious service to the pregnant woman. Rather would I suggest a plan whereby our problem may be made easier and the results better.

The care of the obstretrical patient should begin as early in pregnancy as the first or second month. At this time a history should be taken to learn of any damage done to the patient by sickness; and the course of former pregnancies. A careful pelvic examination should be made to ascertain the size and shape of the bony pelvis; to correct misplacements and detect pelvis pathology. Many patients who habitually abort will carry a child to full term if a retroverted pregnant uterus is put in a normal position and kept there by the use of the pessary and knee chest exercise; and the reflex type of nausea and vomiting is often cured by this same procedure.

Knowing the tendency of pregnancy to light up an old pulmonary process or a kidney lesion, to aggravate a cardiac lesion by the increased work and to tax all of the organs of digestion and elimination, a thorough physical examination is necessary. A radical change in diet may be necessary, an urgent indication for terminating the pregnancy may be found, indeed a complete change in the manner of living may be advisable. An often neglected but very fruitful source of satisfaction to the patient and physician is early detection and intensive treatment of gonorrhea and syphilis in the pregnant woman. Both of these diseases may be treated thoroughly during gestation without injury to the child. Local treatments with silver preparations and warm vaginal douches of potassium permanganate or other suitable agents will often prevent any gonorrheal complications. Intravenous and cutaneous treatments directed against syphilis will often prevent abortions, bring a healthy appearing child into the world and cause a marked general improvement in the mother. At birth a little blood taken from the cord will give a good idea of the child's condition and the mother and child may continue treatments during the puerperium and on to recovery.

No antepartum examination is complete without a blood-pressure reading and a careful urinalysis. The blood pressure which is normally low during pregnancy, rises rapidly with a threatened nephritic or eclamptic condition. These observations, with repeated urinary examinations, should prevent many patients reaching a most dangerous state of toxemia. Usually urine examinations and blood pressure observations are made each month up to the seventh month, then oftener. I believe that they should be made at shorter intervals for eclampsia may be so fulminating in its outset that only a few days may elapse between the earliest signs and symptoms and the ofttimes fatal convulsive state.

Most of us have been taught and from observation have come to believe that nausea and vomiting must accompany the early months of pregnancy. We must now alter our viewpoint and interpret these symptoms and signs as manifestations of altered metabolism, dietic error, failure of proper elimination, lesions in or about the generative tract, and manifestations of an unstable nervous system. So important is the modern view of this phase of obstretics that I will briefly state its present status. All patients suffering from excessive vomiting of pregnancy pass through a state where their symptoms are not marked. It is at this time, early in pregnancy, that the physician can do his best work. Cases of hyperemesis gravidarum may be divided into three types, namely the neurotic, the reflex and the toxic types. The group classed as neurotic cases, embraces many women who have inherited unstable nervous systems and those women who do not desire offsprings, but find themselves pregnant. Often sound advice by the physician or some unusual treatment is sufficient to work a cure. Many of these patients need treatment directed toward the nervous system, for example, isolation, suggestion, nerve sedatives or similar measures. The reflex type if found by pelvic and abdominal examination. I have already mentioned those patients with a retroverted uterus and the splendid results attending the correction of this displacement. The removal of ovarian cysts and chronic appendices is sometimes necessary to stop the vomiting. The local treatment of a cystitis, urethritis or endocervitis will often accomplish the desired results. By far the most important group is the toxic type. The majority of patients fall into this group. Often if seen early and properly treated they respond quickly, but when neglected they soon pass into an extremely trying and dangerous state. Many

of the neurotic and reflex types pass over into this group when untreated. All modern views of this subject and all of the results of research work show that dietetic errors and improper elimination in the pregnant woman soon lead to vomiting, then on to a slight degree of starvation, then to a state of acidosis, on to dehydration and finally serious and often fatal visceral changes. In order to stop this dangerous progression it is necessary to see the patient before marked starvation with the accompanying acidosis is well developed. Correction of constipation, increasing the liquid intake, decreasing proteids and irritants of the kidneys may be sufficient to relieve the patient, but a diet high in carbohydrates is almost specific for these early cases. Titus, Hoffman and Givens (3) have recently published a paper entitled "The Role of Carbohydrates in the Treatment of Toxemias of Early Pregnancy." They state that frequent small meals and lunches containing much carbohydrate will relieve mild cases of nausea and vomiting. They advise soda crackers before rising, a light breakfast, soda crackers and milk in the middle of the morning, a light lunch without meat or pastry, the dessert being cornstarch or rice pudding or custard. Afternoon tea with arrow root biscuit or bread and butter sandwiches. A light dinner or supper similar to the luncheon, a bowl of bread and milk at bed time and crackers and water to be taken during the night. Severe cases are given, in addition to the diet suggested 8 to 16 ounces of a 10 per cent. glucose and 2 per cent. sodium bicarbonate solution daily by mouth. This may be given in 1 or 2 ounce doses. The seriously toxic patients are given an initial period of rest, gastric lavage, and the introduction of saline cathartic through the stomach tube, the glucose and soda solution is given by mouth and bowel. About one quart being given in 24 hours.

At the time of these early visits to the physician the patient should be informed about diet, elimination, exercise, sexual life and should be directed to report any abnormal symptoms or signs. It is surprising how often patients fail to report slight flowing, severe headaches, slight edema of eyelids and ankles and scanty urinary output unless warned to report them. During the last two months of pregnancy the physician is constantly on guard for signs of complications. Faulty positions of the fetus, placenta perviae, premature separation of the placenta and frequency of the toxemias during this stage make it a particularly critical period.

The obstetrical patient having passed all of the hazards of the gestation period, arrives at the time of labor. Probably the time will never come when all women will be confined in hospitals or institutions for maternity patients, but the sooner those patients showing abnormal conditions are detected and cared for in hospitals the sooner our maternal mortality statistics will fall. Any patient who in former pregnancies or during the course of any pregnancy shows marked abnormalities should be a hospital patient. Every obstetrical case at labor is potentially a surgical case and the physician must be able to handle it as such. In the home this is often impossible. Hospital care is better for the mother and child and far more satisfactory to the physician. These facts are hard to impress on multiparous women but the primiparous patient is easily convinced and once confined in a hospital, is rarely satisfied to remain at home at subsequent labors. I often marvel at the kindness of Nature, the good fortune of the mother and child and have only words of praise for the physician, who so often, in rural districts, and under unsanitary surroundings successfully handles a serious obstetrical complication and brings a favorable outcome to both mother and child; but all of us can recall patients who would have done better had they been in a hospital, where asepsis was possible and all modern appliances were available.

Time is too limited to mention all of the improvements and changes that have proven useful in obstretrics but I wish briefly to mention some of these. As an anesthetic during labor, chloroform is losing its popularity and is being replaced by ether. In institutions nitrous oxide during the long trying first stage is a wonderful agent especially for the highly nervous woman. It is practically harmless to both mother and child and certainly relieves the patient at the peak of each pain. It may be used until the head is partly crowned, when a change to ether makes a slow delivery of the head possible.

During labor rectal examinations may be made frequently and the progress of cervical dilatation and descent easily ascertained without adding any risk of sepsis. Many patients at full term who have a tendency to carry the child past term, may be started in labor by the use of castor oil followed in two hours by intramuscular injections of 2 or 3 minims of obstetrical pituitrin. This dose is repeated every two hours until four doses have been given. These small repeated doses do not injure the mother and labor induced in this way is normal throughout. The method certainly offers less danger than the introduction of bags. While

speaking of pituitrin, its use when the cervix is fully dilated and the passage and passenger are not in disproportion has proven most valuable and often relieves the physician of the responsibility of a mid or low forceps operation. One-half c. c. doses are suitable for this purpose. Also the use of surgical pituitrin to relieve intestinal distention, and atony of the bladder after confinement is a useful measure.

Episiotomy is a simple surgical procedure that deserves more popularity with the physician. When it is apparent that a perineal tear is about to take place or a narrow pubic arch is crowding the head back towards the rectum, a lateral incision with knife or scissors at the junction of the upper two-thirds with the lower third on one or both sides of the vulva will allow a rapid birth of the head, shoulders and body without serious damage to the perineum or rectum. Oastler (4) in a recent article sums up the value of episiotomies as follows:

1. They save many mothers from exhaustion.
2. Save the perineum.
3. Do no pelvic harm.
4. Diminish the risk to the child. A few deep sutures of chromic catgut will unite the deeper structures and the mucosa while interrupted silk worm gut sutures serve best in the skin and for reinforcement.

During a long first stage of labor when the patient has been fatigued and the pains have become weak and irregular (a state often seen in dry labors) small doses of morphia, 1-8 to 1-4 grain repeated in six to eight hours, will give the patient a much needed rest, so that the pains come on with renewed vigor and interference is not necessary. This simple treatment does not materially lengthen the first stage.

Many of the serious errors in obstetrical practice are made by the physician during the third stage of labor. After the child is safely delivered, it is natural for the physician to wish rapid separation and expulsion of the placenta. One of the most common causes of post partum hemorrhage is a premature attempt to express a placenta that has not completely separated from the uterine wall. Cotyledons and placental tags are left in the uterine cavity; time is not allowed for clotting and plugging of the venous sinuses and hemorrhage follows. Another dangerous practice is the routine removal of the placenta by the manual method. During delivery the gloved hand and gown sleeve have become contaminated, also the vulva is often far from sterile. Manual removal of the placenta under these conditions is exceedingly dangerous from the standpoint of sepsis. The hand and field should be as clean as when the surgeon enters the peritoneal cavity. In fact more danger is attached to manual removal of the placenta, for the venous sinuses offer a fertile medium for bacterial growth and sepsis; pelvic thrombosis and phlegmasia alba dolens may follow this procedure. Usually if the physician will wait 20 to 30 minutes after the birth of the child, the placenta will separate and can be expressed without any danger.

During the puerperium there are several very valuable and useful practices. I will briefly mention some of them. The intramuscular injection of sterile ergot after labor. By some this is used routinely as a preventive measure against hemorrhage. Where considerable vaginal manipulation has been necessary or where there is special danger of sepsis, a course of ergot, that is 1-2 drachm of the fluid extract given by mouth every four hours until 6 doses have been given, will close the uterine sinuses and often prevent infection. This same course given later in the puerperium hastens involution of the uterus. Posture during the puerperium is very important. The patient who spends most of her time in bed in the lateral Simm's position or sleeps on the abdomen, will rarely have a retroversion following confinement. Also the urinary outlet through the ureters is not obstructed. If the subinvoluted uterus falls into a retroverted position the knee-chest position after the eighth day will often correct it. If there has been a repair of lacerations the locial flow does not pass over the suture line when the patient is in the lateral position. When an episiotomy has been performed on one side, the patient should be encouraged to rest on the opposite side.

A few suggestions about the care and management of the breasts might be useful. If the first cathartic is given about the third or fourth day, using enemas if necessary up to that time, and if the cathartic is a saline one, the patient will rarely suffer from engorged, painful breasts. At the same time the liquid intake should be reduced and the breasts snugly bandaged; sometimes the ice pack is useful. Cleanliness and fairly long intervals between nursing will prevent infection.

Colon and other infections of the urinary tract are by no means rare manifestations after delivery. Surgical pituitrin will often save catheterization and a beginning cystitis will respond quickly to the following plan; give sodium bicarbonate in large doses until the urine is made alkaline, then discontinue the sodium bicarbonate and force liquids and urotropin.

The sudden change in reaction of the urine often clears up a bladder infection.

When the puerperal patients should sit up is not a matter of routine but is an individual question. The physician who carefully watches his patient is able to decide this question wisely. Post partum care should extend over several months if we hope to prevent many of the crippling complications attending child birth. It is usually six weeks and often longer before the pelvic organs regain their normal size and position so that some attention should follow the patient after she sits up and the physician ceases his daily calls.

I take no credit for the practices outlined in this paper. They are probably far from ideal but they have served me well in my obstetrical work and I trust that they may be of value to other physicians who are striving to give their best to the obstetrical patient, thereby reducing maternal mortality in this country and bringing additional honor to our great profession.

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"PERNICIOUS ANAEMIA OF PREGNANCY."

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The so-called pernicious anaemia of pregnancy is a form of haemolytic anaemia, which remains quite distinct from true pernicious anaemia. There has been very little reference made to it in text books because of its supposedly rare occurrence. Yet I have seen no less than eleven cases of the disease in the past six years and recently while reviewing the literature on pernicious anaemia, I was surprised to find so many references to cases of that disease beginning during the puerperium. Furthermore, I am inclined to believe that deaths from puerperal anaemia have been reported as due to malignant endocarditis, because the symptoms of these two diseases resemble each other in many respects.

Evidently puerperal anaemia is not so rare as we have been lead to suppose and surely every practitioner who comes into contact with puerperal women should be familiar with the symptoms and treatment of a disease which has a reported mortality of from 60 to 80 per cent.

Puerperal women with anaemia should be carefully studied for the following reasons:

1. Since its first description by Walter Channing in 1842 (1) puerperal anaemia has frequently been mistaken for one of two invariably fatal maladies, ie., pernicious anaemia or malignant endocarditis.

2. The newer methods of blood transfusion offer a very encouraging prospect for more beneficial treatment. Of the eleven cases I have seen, nine have fully recovered following transfusion.

3. The literature and the teaching in text books concerning this subject is full of confusion, mostly because there are other forms of anaemia which complicate pregnancy and the puerperium. The anaemias associated with acute and chronic haemorrhages and the anaemias secondary to infection are especially at fault in this regard. Osler (2) recently attempted to classify all the anaemias complicating pregnancy and the puerperium. At the same time he suggests that the onset of puerperal anaemia may begin some weeks before term. Dr. Richard Cabot (3) has also favored this idea and there are a number of instances in the literature to support his opinion. These important questions can easily be settled in the future by the general practitioner, who has the opportunity to know so much more about his patients than can by any means be discovered about persons who flit through a hospital. It is by this means that the diagnostic mistakes of the past will be avoided in the future.

The usual clinical picture develops gradually following normal delivery. The most remarkable feature of the disease is, of course, the anaemia, but it is not unusual to find cases where the fever appears early in the foreground and remains the most annoying symptom for several weeks. As a rule, the patients retain their panniculus, while soon there develops a jaundice, varying from a pale yellow hue to a well marked golden yellow color. It is often remarkably variable in appearance and when seen together with the palor and the thick panniculus, it has a tendency to give the skin a waxy lemon yellow appearance like that observed in patients with pernicious anaemia. The stools are normal in color and the urine is free from bile, but urobilin in excess is frequently demonstrable. Other symptoms develop which are common to all forms of severe anaemia. Symptoms such as asthenia, palpitation of the heart and dyspnoea are constantly complained of, while the murmurs heard over the heart have sometimes been found to be very disconcerting, so much so that when considered together with

the anaemia, the jaundice, enlargement of the spleen and the leucocytosis, may lead to a diagnosis of endocarditis. But the absence of multiple emboli and positive blood cultures serve to differentiate these two diseases. Also the anaemia associated with malignant endocarditis is of the secondary type while that of puerperal anaemia is of the primary type.

Evidence of blood destruction is present from the beginning and this process may go on to such a considerable degree as to terminate with aplastic marrow accompanied by a blood picture which shows very little or no evidence of regeneration. However, the usual blood picture is that of abnormal blood destruction with signs of marked regeneration in contrast to the picture seen in cases of simple secondary anaemia. As the anaemia increases in severity, a leucopenia may develop, but the chief features of the typical fully developed blood picture, are a leucocytosis, a high color index and the presence of many neucleated red cells, with a considerable abnormality in the shape of red blood cells. This blood picture is in a great measure responsible for the confusion which exists between this disease and pernicious anaemia; the blood picture of puerperal anaemia will, however, be found to differ from that of pernicious anaemia in one very important respect, namely, the absence of a marked general macrocytosis accompanied by a sufficient number of abnormally shaped macrosytes. In addition to this the presence of a leucocytosis helps to make the difference complete. Another important differentiating point is the absence of the cord lesions so common to pernicious anaemia.

Fever, often reaching as high as 104 F, always complicates the clinical picture and it is forever suggesting an infection as the sole cause of the whole disturbance, but try as one will, no evidence of infection can be found. Blood cultures are repeatedly negative and autopsies on patients who have died from the disease disclose no evidence of infection. Such negative findings however, do not prove that puerperal anaemia is not caused by sepsis. In fact, the fever, the frequent leucocytosis and the chronic haemolytic anaemia support this assumption. But, notwithstanding these statements, the etiology is still obscure and the infectious theory difficult of proof which offers another very good reason why these cases should receive more consideration than they have had in the past. It is evident that proof should take the place of conjecture and our knowledge of puerperal anaemia will never advance until the general medical profession take sufficient interest to report their cases.

TREATMENT.

The treatment of puerperal anaemia consists of the usual general measures such as rest in bed, fresh air, freedom from worry and mental strain, etc. The diet and care of the digestive system are of great importance because metabolic disturbances are not uncommon in anaemia. This will require forced feeding to establish nitrogen equilibrium; thus permitting a nearer normal basal metabolism. A diet rich in iron containing foods is desirable. Hydrochloric acid should be given in large doses as it is well known that this acid is frequently subnormal or absent from the stomach contents.

Special medication such as the administration of arsenic and iron seem to be of very little benefit early in the disease. The transfusion of whole blood offers the most satisfactory and encouraging opportunities for more frequent and earlier cures. A detailed discussion of the various methods of transfusion cannot be discussed here, but there are a number of important points which ought to be emphasized. Emphasis therefore, is placed on the following points. First, the intramuscular injection of blood, defibronated or otherwise, is of little or no value as compared to transfusion. Furthermore, it is to be remembered that no patient is too sick to receive a transfusion. I have seen patients in a most helpless state show remarkable gains following this procedure(4). Also transfusion should be used at the earliest possible moment, as soon as the diagnosis can be made. It should be realized that transfusion is not essentially a method of last resort.

A healthy Wassermann negative donor, who can afford a reduction in blood volume should be secured and tests for blood compatibility should be made in every instance. I think that the direct transfusion of blood is the best method to be used but the citrate method may be tried as I have seen it give good results early in the disease. In my experience, the quickest response and the most marked improvement has followed the use of the direct method. (4) Furthermore, I advise direct transfusion of blood in every case where the hemoglobin is below 15 per cent.

Following transfusion, treatment with arsenic and iron seem to be of benefit, Fowler's solution by mouth and hypodermic injections of iron citrate are recommended.

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THE STATUS OF CRIPPLES IN DETROIT.*

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Ignorance is the term which must be used in any description of the situation with respect to cripples in any state, city, or smaller unit of government with two exceptions which will be noted later. Most communities have a self-satisfied feeling in the way the indigent sick are cared for. They point with pride to their hospitals, their dispensaries, the child-welfare associations, the visiting nurses, the tuberculosis sanitariums, maternity homes, orphan asylums, insane hospitals, and the activities of the Red Cross and the Salvation Army. These are things of which we may well be proud for never in the history of charitable endeavor has so much been done as is now being done for the relief of the sick, the lame, and the blind. The recent war served to demonstrate to ourselves to what extent we were willing to extend the helping hand when the need was forcibly brought to our attention. But it must be remembered that with the need remaining the same, a martial setting has the power to focus the attention as has nothing else in the world. For example, the death every year of 200,000 in the U. S. from the preventable disease, tuberculosis, scarcely causes a ripple in the surface of our daily lives, and this in spite of the fact that a campaign of education and appeal has been carried on for years. Let us take the situation of the cripple. Every year in the U. S. there are more people maimed and killed in industrial pursuits than during our entire participation in the world war. And yet it took a great crisis in our country's history to put upon a workable basis a plan of treatment which had for its ultimate end functional restoration of the disabled. Previous to the war there were only about 75 medical men specially trained along these lines in the entire country. Realizing the need for such specially trained medical officers the government, by intensive methods, trained and assigned to active duty no less than 800 of such men, and established physiotherapeutic departments and curative workshops in all the larger general hospitals for the treatment of selected cases. No such institutions exist for the treatment of similar cases arising in civil life although the type of cases occurring in industry is very similar to military casualties and the number just as great. In any program then, having to do with the public responsibility for the care of the cripple, either congenital or industrial, a survey of the local situation—a sort of stock taking is essential.

Only one state in the Union has made a seurvey of its cripples—Massachusetts—and that investigation carried out in 1905 established the fact that there were in the state 17,134 cripples which gave an average of 5.7 cripples per 1,000 population. I will not go into details of the Massachusetts report, as there is a more recent report in the Cleveland survey of 1916, except to state that the inclusion of rural districts in a state-wide survey does not alter in any material respect the findings of a later survey where only city dwellers were considered. There is a marked similarity between these two reports.

Taking the Cleveland statistics and revising them to apply to Detroit is in general not unfair for there are certainly greater differences between Massachusetts and Cleveland than between that city and Detroit. Certain reservations for known differences will be made in definite instances. Making such a revision is what I have done. Cleveland is, geographically, much the same as Detroit, climatic conditions are the same, the proportion of foreign-born differs but little, the method of housing is better here, both cities are industrial centers, and the cripple situation in Cleveland in 1916 per 1,000 population should bear a pretty definite relation to Detroit in 1920. The population of Cleveland in 1916 was 674,000 and the population of Detroit is assumed to be one-third larger in 1920 which gives a population of 898,000.

Table I—Cripples in Detroit—estimated from Cleveland survey.

Age at time of survey	Number and per cent distribution					
	Total	Per Cent	Male	Per Cent	Female	Per Cent
All ages	5481	100	3517	100	1964	100
Under 5	220	4	117	3	103	5
5—9	555		292		263	
10—14	473	18	277	16	196	22
15—19	401	7	225	6	176	9
20—24	387		249		137	
25—29	394		297		97	
30—34	356	41	245	46	111	33
35—39	399		293		108	
40—44	398		278		119	
45—49	355		247		108	
50—54	365		254		111	
55—59	349	13	229	14	120	11
Over 60	929	17	513	15	416	20

Table 1. According to the estimate there are in Detroit 5,481 cripples, of whom 3,517 are males and 1,964 are females. Grouping the cases according to age, making five years the group period, we find that the largest group—555—are between the ages of 5 and 9 years excepting the group "over 60" which is not limited by the 5 year period. The next largest

*Read before the Wayne County Medical Society at its meeting April 19th, 1920.

number is in the third group. From 15 to 59 years cripples are pretty evenly distributed in the various groups, ranging from 349 to 401. If we roughly classify the cases in periods of "infancy," "school age," "industrial activity" and "age of reduced activity," with the ages 5, 19 and 49 as the terminal years in the first three classes, it is found that 4 per cent of our cripples are under 5 years of age, 25 per cent. are of school age, 41 per cent. are in the productive period of life, and the balance—30 per cent.—50 years of age and over.

In comparing the relative and absolute frequency of crippling conditions by age periods among males and females the following interesting facts are noticed. Sixty-four per cent. of all cripples are males, 36 per cent females. This is due no doubt to the greater liability to injury in the industrial life that males lead for it is seen that in infancy sex seems to have very little influence but as soon as the environment of the boy becomes different from that of the girl in that the hazard is greater, the number of cripples among boys increases. This extra hazard continues to be a factor in the life of the male for the remaining periods. It must be kept in mind that these figures represent the ages at the time of survey and not the ages at the time of occurrence. The possible sources of error in this and following tables will be indicated later. Assuming for the time being, however, that this table is reasonably accurate we see that there are 1,449 cripples of school age in the city and the query immediately arises as to how many of these are able to attend the regular school courses, how many would be benefitted by special classes in special schools maintaining the regular curriculum, how many are not attending any school by reason of being under treatment or because of inability to get to the school building from physical disability, and finally how many are not in regular or special schools because of mental as well as physical defects. Some of the following tables have a bearing on these queries:

Table II. Age at Time of survey.

	Occurrence of Disability. Adapted from Cleveland Survey.					
	Occurrence				Survey	
Birth, 4 years	1867		34%		220	4%
5—9 "	469		8%			
10—14 "	392	(861)	7%	(15%)	1028	18%
15—19 "	336		6%		401	7%
20—24 "	333		6%			
25—29 "	345		6%			
30—34 "	288		5%			
35—39 "	239		4%			
40—44 "	251		5%			
45—49 "	242	(1698)	4%	(30%)	2288	41%
50—54 "	215		4%			
55—59 "	177	(392)	3%	(7%)	714	13%
60 and over	364		7%		929	17%
Not stated	63		1%			
Total	5481		100%			

Table II gives the ages at the time of occurrence of disability and compares these ages with the ages of the table just given. Here we find that 1,867 cases or 34 per cent. occur at birth or during infancy with the next 5 year period from 5 to 9 the next most numerous with 469 cases. The industrial period accounts for 30%, the numbers gradually decreasing as the groups are taken up in order. The important fact here brought out is that the problem of the cripple is a medical and an educational problem of childhood to a large extent. From a medical standpoint the community must ask itself if it possesses the institutions, hospitals, clinics, dispensaries, and convalescent homes, all properly equipped and manned by specially trained personnel to care for the handicapped child. The community also must ask itself if it has provided educational facilities of the ordinary or special types, according to the need, whereby the crippled child may receive instruction, both during and after treatment, to the end that its handicap may be lessened and the economic status of after life improved.

Table III. Form of Disability. Estimated from Cleveland Survey, 1915-1916.

Loss of one hand or arm	251—	4%	
Loss of both hands or arms	8—	1%	
Defect of one arm or hand	665—	11%	
Defect of both hands or arms	56—	1%	17%
Loss of one foot or leg	621—	11%	
Loss of both feet or legs	36—	1%	
Defect of one foot or leg	2051—	37%	
Defect of both feet or legs	487—	9%	58%
Loss or defect of one or both arms arms combined with Loss of defect of one or both legs	443—	7%	7%
Deformity of body	265—	5%	
Paralysis of body	8—	1%	
Not classified	89—	1%	7%
Crippled body combined with crippled legs and arms	591—	11%	11%
	5841—	100%	100%

Table III gives the form of disability and the assumption is made that these figures are correct for Detroit. Seventeen per cent. of the cases are disabled in the upper extremity, 58 per cent in the lower extremity. Seven per cent. show defects of the trunk, and 11 per cent. have defects of trunk and extremities. In both the upper and lower extremities amputations are in the minority as compared with defects, and by defects are meant all other crippling conditions. Defects of the foot or leg form by far the greatest class with 2,051 cases, or 37 per cent. of the total, followed by defects of the arm or hand with 665 cases or 11 per cent. of the total.

Table IV. Age at time of survey.

	0-5	5-14	15-19	20-49	50-59	60 & over
Loss of one or both hands or arms	0	5	3	171	52	28
	0%	2%	1%	66%	20%	11%
Defect of one or both hands or arms	32	80	39	401	86	73
	5%	11%	5%	56%	13%	10%
Loss of one or both feet or legs	0	43	31	411	83	80
	0%	7%	5%	62%	14%	12%

Defect of one or both feet or legs	139	605	216	849	315	424
	6%	24%	8%	33%	12%	17%
Combined leg and arm disability	13	82	20	143	60	115
	3%	21%	4%	32%	14%	26%
Deformity or paralysis of body	7	132	56	127	15	27
	2%	36%	16%	35%	4%	7%
Combined arm, leg and body disability	29	71	37	187	84	183
	5%	12%	6%	32%	14%	31%
TOTAL	220	1028	401	2288	714	929
	4%	18%	7%	41%	13%	17%

Table V. Age at Occurrence. Adapted from Cleveland Cripple Survey.

Years	0-5	5-14	15-19	20-49	50-59	60 & over
Loss of hand or arm—one or both	7	32	47	155	15	4
Defect of hand or arm—one or both	155	99	93	316	47	16
Loss of foot or leg—one or both	27	157	72	351	25	23
Defect of foot or leg—one or both	1159	400	92	501	183	184
Combined leg and arm disability	153	32	7	137	44	68
Deformity or paralysis of body	164	69	5	17	4	7
Combined leg, arm and body disability	179	44	19	204	73	61
Not classified	27	39	1	17	1	1
TOTAL	1867	861	336	1698	392	364
	34%	15%	6%	30%	7%	7%

(Age not stated in 1%)

Table IV gives the age at time of survey combined with the anatomical distribution of the various disabilities. This shows that amputations, which are the result of industrial or other accident, occur in greatest numbers during adult life while defects are common in both children and adults. This is more strikingly brought out in Table V which gives age at occurrence combined with distribution. The greatest group in this table is that showing 1,159 defects of foot or leg occurring in children while under five years of age, 501 disabilities of foot or leg occur between the ages of 20 and 49, but as this is a span of 30 years the group is relatively not as important as the 10 year span from 5 to 14 in which 400 cases occur. Again we are reminded that it is the children who suffer most severely from physical handicaps.

Table VI. Main Causes of Disability. Adapted from Cleveland Survey.

	Number	Male	Female	Per Cent Distribution	Male	Female
Congenital	401	181	220	7%	5%	11%
Accident at occupation	624	609	15	11%	17%	1%
Other accident	1764	1288	476	32%	37%	23%
Infantile paralysis	700	385	315	13%	11%	15%
Other diseases	1916	965	951	34%	28%	46%
Not stated	176	88	88	3%	2%	4%
	5481	3517	1964	100%	100%	100%

Main causes of disability are illustrated in Table VI. Seven per cent. are congenital, 11 per cent are caused by accident at occupation, 32 per cent. by other accident, 13 per cent. by infantile paralysis, and 34 per cent. by other diseases, bone tuberculosis, etc. Women suffer very little from occupational accidents and are not as prone to any form of accident as are males. Three of the five causes given apply to children especially—congenital conditions, infantile paralysis, and diseases of bones. The first two alone comprise one-fifth of the total number of cripples with 1,101 cases.

Table VII. Causes of Disability in Children—Estimated. 0-15 Years. At Time of Survey.

Congenital	199	16%
Accident	116	9%
Infantile paralysis	509	41%
Tubercular bones and joints	185	15%
Other diseases	197	16%
Not classified	42	3%
	1248	100%

Of the 1,248 crippled children under 15 years of age estimated to be in Detroit, 199 suffer from congenital defects, 116 from accidents, 509 from infantile paralysis, 185 from bone tuberculosis, 197 from other diseases, 42 not classified. This gives infantile paralysis as the largest single factor among children who are at present of school age or under. Forty-one per cent. of the total are from this cause. When it is realized that the number of infantile cases of all ages is 700 and that 509 of these are still under 15 years of age we begin to appreciate how recent is our problem for the proper treatment and education of these children. Has the community, the various charitable organizations, or the medical profession taken any steps to meet the special needs of these infantile cases?

Table VIII. Age Distribution of the Blind in Detroit—Estimated from Cleveland Survey.

Under 15 years	63	7%
15—60 years	396	44%
60 and over	441	49%

Age Distribution of the Crippled in Detroit—Estimated from Cleveland Survey.

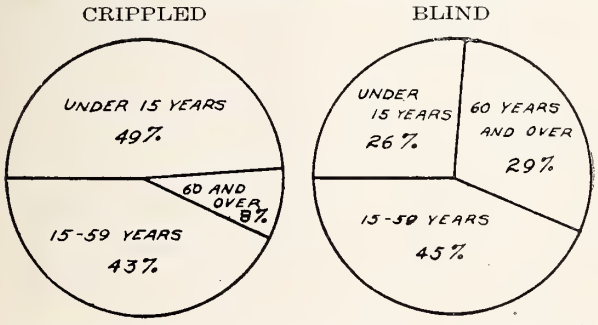
Under 15 years	1206	22%
15—60 years	3343	61%
60 and over	932	17%

Table VIII gives the age distribution and the number of blind in Detroit as compared with the crippled from which it is gathered that there are six times as many crippled as blind, that the problem of the blind is largely one of middle life and old age instead of one of childhood. Another query comes to mind—has society provided as amply for the cripple in proportion to his numbers and his need as it has for the blind?

This ends the series of projected tables. Let us now examine the possible sources of error and make the necessary corrections. I have repeatedly heard the following statements: "Detroit has no cripple situation. Everybody is at work and receiving good pay. There is no large indigent class requiring attention. People are able to pay and are paying for what medical attention they need. Thousands of workmen have flocked to Detroit in the last three years to share in our material prosperity but because of their

inability to find homes have left their families behind. These men are able-bodied and so present no problem. Detroit is a city of detached homes and as a result we have none of the diseases incident to a tenement city. Detroit cannot be compared in any way to Cleveland because our standards of living are infinitely higher and our civic responsibilities carried as is done in no other city in the United States." These then are the statements. Let us hope they are true for civic pride is a valuable asset to any community. But hope and civic pride should not deter us from searching the facts and acting on the facts when found.

Comparison of Age at Occurrence of Disability Among the Blind and Crippled.



Cleveland Cripple Survey, 1915-16 Census 1910

It is true that many workmen have come to Detroit without their families and that for the most part these men are, or were, able-bodied. The net effect is to increase relatively the number of industrial cripples and to reduce, also relatively the number of crippled children. Detroit's population is undoubtedly better housed than the average city even in spite of the present over-crowded condition. We have no tenement districts to speak of and this factor reduces considerably the number of cripples who were made so by unhygienic environment. This applies particularly to tuberculosis. The table quoted gives 15 per cent. of all crippled children under 15 years of age as suffering from tuberculosis of bones and joints—a total of 185 cases for this city. On actual survey the number would undoubtedly be less than this. Detroit's population is at work and consequently better able to pay the private physician for medical attention to cripples and so there is a falling off of attendance at the dispensaries. The improved economic condition is not so much due to an increased daily wage, for the increased cost of living has largely neutralized this, but to be accounted for by the more continuous employment. A resume of the local conditions as corrected is about as follows—the total number of crippled children as given in the tables is probably slightly too large and the number of cripples charged to industry is without question underestimated—the final total comprising both classes remaining about the same. Of the 5,481 cripples estimated to be in the city, a larger proportion than usual are able to pay for medical and surgical attention, leaving a reduced but still considerable number to be cared for by charitable institutions.

What can the private or dispensary physician or surgeon do to restore the patient to a life of usefulness, for after all the need of society for a useful life is second only to the need for saving life? For an acute condition he can make use of the ordinary hospital, ordinarily equipped, and with the ordinary personnel. Then a few visits to the office or the dispensary and in the case of private patients, the bill, and all seems to be settled. This, however, is not the case. For the child there is the question of restoration of function, education or re-education during the long period of convalescence. For the adult the same things apply but with special emphasis on re-education in selected cases to the end that he may re-enter industry with the least possible handicap. I maintain that the proper treatment of the patient, whether rich or poor, in the office, the dispensary, or the hospital, is too large a problem for the physician or surgeon to solve within the four walls of an office or in a hospital as ordinarily equipped. A few changes here and there in our existing institutions, followed by the closest co-operation between the medical profession, the hospitals, the dispensaries, the Department of Health, the Board of Education, convalescent homes, recreation centers, and leaders of industry, will bridge the gap now existing in the continued and progressive treatment of our cripples. The mere ability to pay does not bring the necessary relief. It does, however, render the establishment of the proper facilities for such relief less expensive.

To make the proposition seem a little more real to us let us take a few illustrative cases.

A child with Pott's disease enters the hospital as a private or dispensary case. The necessary surgical and immobilization treatment is given and the child transferred as soon as safe to a convalescent school, maintained at state expense, on the ground that disease should not act as a bar to that education freely granted to the able-bodied child. From time to time the patient returns to the dispensary, the office or is visited at the school by his medical attendant. That education is given which best fits the child for the struggles of after life and must be individualistic. The teacher must possess the qualities of a nurse and social worker as well. As the child grows older and a cure has been

established the patient may be admitted to that technical training for which he is best fitted after which he should be able to make his own way in the world.

The next case is a child with infantile paralysis. While in the hospital all muscle groups are tested for power on the spring scales, vicious contractions corrected, and a course of massage electro-therapy, and remedial gymnastics started the benefits of this treatment being checked up periodically by the spring balance test. Finally for conditions uncorrectable by these physiotherapeutic methods, surgery and the fitting of braces is to be resorted to and the child transferred to the convalescent school where treatment in a modified form is continued. At the end of such a course of medico-educational treatment the patient will be in much better shape to enter the lists as a bread winner.

Let us assume the next case to be an industrial worker with a crushing injury to the right forearm and elbow. He receives first aid and the necessary surgery, restoration of function being hastened by the intelligent use of massage, active and passive exercises, hydro and electrotherapy, occupational and curative work—and by curative work is meant not merely something to occupy the patient's spare time but rather that work which has specific value in restoring function in the disabled member. Following discharge from the hospital it may be found that the injured arm is permanently crippled and that the man is unable to follow his former occupation. He then enters a trade school, either within or outside the factory in which he was injured, for the purpose of re-education to a calling which his previous education, his mental state, and his physical handicap permit. This re-education should be granted to the victim without cost to him, the compensation allowed by law to remain the same.

Such a program as this is not too much to ask on behalf of the handicapped. To grant the request it will be necessary that at least some of our hospitals provide means whereby the valuable physio-therepeutic adjuncts of treatment may be prescribed, that units of government establish convalescent schools free from the taint of charity and to which rich and poor may go without loss of self respect, and that industry be chargeable with the responsibility for re-education of its cripples.

What steps are necessary to a thorough understanding of the local situation? I should say first of all, a complete survey of all the handicapped in the city. We should know the total number of cripples, their ages, the age at which the disability occurred, the cause of the disability, the amount of reduction in earning power, the number attending regular or special schools, the number of children of school age not attending school and the reason therefor, the quality of service rendered by hospitals, dispensaries, and schools for cripples, the quality of training in the prevention and treatment of deformities given in medical schools, the facilities for the rehabilitation of the industrial cripple, the effect of workmen's compensation laws in retarding or hastening the return of the disabled to industry. When we know these things by direct evidence rather than by the round-about method I have been forced to adopt the solution of the problem will depend on the findings. Of this I am sure—that Detroit has a cripple situation and that the facilities for meeting that situation are inadequate. 804 Empire Building.

SEQUELAE OF ENCEPHALITIS LETHARGICA IN FOUR CASES.*

ROBERT C. MOEHLIG, M.D.
DETROIT, MICH.

1. Sufficient time has now elapsed for us to meet with cases of chronic encephalitis lethargica and to note some of the results produced by the acute pathology. It is possible at times to diagnose these cases by the sequelae of the disease much the same as we are able to diagnose an antecedent acute poliomyelitis by the resultant paralysis. It has been suggested that the two diseases are incited by different strains of the same causative infective agent with a modification of its virus. They are both sporadic in type and attack the central nervous system with resulting paralysis. But poliomyelitis is more destructive in character while the toxin of encephalitis is more irritative. The former usually comes in childhood and the latter is more common in adults. Likewise epidemics of poliomyelitis are in no way related to encephalitis epidemics. There are of course, many other points of distinction.

*Read before Staff Meeting Harper Hospital, Jan. 23, 1921.

2. Encephalitis seems to have a special, though not invariable, predilection for the brain stem. The brain has a pinkish appearance and the greatest pathology is usually seen in the mesencephalon, pons, and basal ganglia. Meningeal thickening and edema is frequent. On section especially, the gray areas around the aqueduct of Sylvius show punctuate hemorrhages. The characteristic lesion is a perivascular infiltration and an interstitial edema and this condition produces a temporary interruption in the nerve conductibility so as to produce the paralysis and differences in the reflexes. Thrombosis of the small vessels are frequently found and the perivascular infiltrations are of the lymphocyte variety. As a rule it attacks single cells or small groups of cells in many situations, and because of these diverse locations the many varied neurological findings are accounted for. In contrast to poliomyelitis there is no complete absence or destruction of the ganglion cells but varying degrees of chromatolysis. It is therefore not as extensive or as destructive as poliomyelitis.

3. The literature on encephalitis is a comprehensive one and contains many reports on the isolation of an infective organism. Loewe and Strauss (1) have been able to produce the disease experimentally in rabbits by injecting intracranially, the filtrate obtained from the washings of the naso-pharyngeal membrane of patients suffering with encephalitis. Characteristic lesions were produced in 78 per cent. of the experiments. But it can safely be said that the real causative agent has not yet been isolated. The infective nature, however, is obvious.

4. The symptomatology of this disease is a varied and protean one. From the pathology it becomes evident that there will be a multiplicity of clinical symptoms which resemble many forms of nervous diseases. Many classifications of types are found in literature but no hard and fast grouping is really possible. The mode of onset is also varied; some begin with acute catarrhal symptoms of the respiratory tract, others with malaise, headache, vomiting, general neuralgic pains just as in the prodomal period of other infections. There is fever, varying in uncomplicated cases from 99 to 102 degrees, pain in the arms and legs resembling muscular rheumatism—for which the disease is sometimes mistaken at the onset—delirium of a mild type is present for a period of a few days to a few weeks, lethargy appearing as a rule within the first few days is quite characteristic and is one of the principal symptoms upon which the diagnosis is based. Some cases, however, suffer from insomnia and never have the lethargic symptom while with others this often precedes the lethargy. The so-called Parkinson's mask is present in the majority of cases. The patients are usually easily aroused but lie motionless for hours. During the period of lethargy catatonia is frequently met with. Very characteristic, and present in perhaps 90 per cent. of cases, is a muscular fibrillation involving various muscles and muscle groups in the face, legs and abdomen. Asthenia is present in practically all cases and is an aid in establishing the diagnosis. Cranial nerve involvement is a most constant and striking symptom. Diplopia, usually transitory in nature—lasting from two to four days and associated with blurring of vision—appears early. Third nerve paralysis, frequently bilateral, with ptosis of the lids is the most frequent nerve involvement and was present 66 times in 115 cases. (Summarized by Dunn and Heagey.) (2) Inequality of pupils through paralysis of the ciliary and iris muscles is also frequent. The fifth nerve paralysis, when present, usually involves the masseter muscle branch and creates difficulty in chewing, while the sensory branch is less frequently involved and produces anesthesia of the face on the involved side. Next in frequency to third nerve paralysis is that of the 6th abducens. The external rectus innervator, producing an internal squint. This was present 40 times in 115 cases. The seventh nerve paralysis with dropping of corner of mouth, absence of wrinkling of forehead, lack of muscular tone on involved side is next in frequency. The chorda tympani branch, supplying the anterior two-thirds of the tongue producing taste disturbance is less pronounced. Disturbance of the other cranial nerves are of minor diagnostic importance. Disturbances in reflexes are not uniform as would be expected from the pathology. Babinski's sign is rather conspicuous by its absence and when present, is usually transitory. Cerebellar involvement with ataxia, nystag mus and vertigo are fairly frequent. Occasionally monoplegias and hemiplegias are encountered. Leucocyte counts average around 10,000 with about 72-80

per cent. Polys. The Wasserman test is uniformly negative. Spinal fluids have an average cell count of from 10 to 50 and in sixty-four examinations in 100 cases in the literature the cells averaged 16. Globulin is positive in 50 per cent. The mortality is about 20-30 per cent.

5. The duration of the disease brings us to the question its sequelae. According to the report of the English local government board (3) the duration of the acute illness is 21 days. The duration of the symptoms is still an open question. Dunn and Heagey (2) give 4 or 5 months for the duration of the facial palsies; the asthenia, depression, about seven months. The following four cases varying in duration from 14 to 22 months still have symptoms sufficient to give trouble. By coincidence they are all in adult males. All but one were in the hospital and diagnosed as encephalitis lethargica.

Only the positive findings will be given:

Case 1. M. M. Age 38. Was in hospital 17 months ago for encephalitis lethargica for which he was confined to bed six weeks. The subjective sequelae of which the patient complains is loss of memory, weakness, pain and twitching in the abdominal muscles, lack of ambition and restlessness. Objectively, the patient has a slow, slurring speech and answers questions painstakingly. Both pupils are sluggish; the left being larger than the right. During the examination of the abdomen fibrillation of the abdominal muscles was produced by percussion.

Case 2. P. G. Age 48. This man had encephalitis 22 month ago and was confined to bed in the hospital for 6 weeks. Because of the severity of his symptoms a fatal prognosis was given. At present the subjective sequelae of which he complains are lack of ambition, difficulty in talking, concentrating, poor memory and weakness of left leg. Objective sequelae are slow, slurring speech, inequality of pupils—left larger than the right—exaggerated patellars and fibrillary twitchings in the left leg. This case was seen by Dr. Jones, who concurs in the diagnosis of encephalitis lethargica.

Case 3. H. W. Age 47. 14 months ago this man had influenza followed by so-called rheumatic fever; was confined to bed in hospital for two weeks. His ankle and wrist joints were swollen and subsided in two weeks. April 4, 1920, patient strained his back while lifting a pole. Worked three days but did not feel well. Since then complains of headache, involuntary movements in abdomen and legs and says his rectum keeps "jumping." His legs are weak and he tires out easily. On questioning him further he says this was present soon after the Influenza attack. The objective sequelae are slow slurring speech, inequality of pupils—right larger than left—wrinkling of forehead, less on the left, tongue smoother on the left, exaggerated left patellar reflex spasmodic contractions of the rectal sphincter and twitching of the leg muscles, especially the left. A diagnosis of encephalitis lethargica was made in the hospital in April 1920 and he undoubtedly had this in Nov. 1919.

Case 4. J. W. Age 26. In Nov. 1919, 14 months ago he had severe pain in the head, arms and legs. Double vision was present for three weeks according to his statement. Persistent insomnia was very disturbing so that he often went for three nights without sleep. This lasted about 8 weeks and since then he sleeps about 4 hours a night. He had and still has, a feeling of weakness in both legs and jerking movements which irritate him. At no time was he confined to bed for his illness. Three physicians saw him at various times and told him it was nervousness. He has been unable to work since Nov. 1919 on account of his insomnia, weakness and restlessness. His memory remains unimpaired. The objective sequelae are unequalness of the pupils, the right being larger than the left, fibrillary twitchings in the leg muscles and exaggerated patellars. This case was undoubtedly an ambulatory encephalitis without the lethargy symptom.

All cases had negative Wasserman. Two had negative spinal fluid quite recently while case 3 had a negative report in the hospital.

Summarizing the four cases it is noted that three symptoms are common to all.

1. Weakness or Asthenia.
2. Inequality of pupils.
3. Fibrillary twitchings.

Three had loss of memory and slow speech while the fourth an ambulatory case without the lethargy was free from these symptoms.

The exact cause of these sequelae still remain unknown. Whether they are due to a chronic irritation by the toxin or a release of nervous activity by interference with control remains to be seen.

In conclusion: the persistence of symptoms resulting from encephalitis 14 to 22 months after the onset of the disease shows that the exact duration of the disease is still problematical.

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March

Editorials

ANNUAL MEETING CALL FOR PAPERS.

Section Officers hereby announce that those of our members who desire to present papers for acceptance and placement upon the sectional programmes for our next annual meeting, that such submission should be made at once. A list of section officers will be found in the front advertising pages of the Journal. Section officers have been engaged in the preparation of the scientific program for several weeks. Please correspond with these officers direct in all matters pertaining to their programme and the submission of papers. The official programme will be published in the May issue.

DUES.

By the action of the House of Delegates, all members whose current dues are not paid on or before April 1st are placed on the suspended list. We recommend that you avoid such suspension by prompt remittance to your county Secretary. Please do not necessitate removal of your name from our list of members in good standing.

ASSOCIATE EDITOR.

Unintentionally we failed to acknowledge in our annual report the work accomplished by our associate, Dr. Guy L. Connor. By his diligence many items that otherwise escaped our attention were submitted for publication and enhanced the value of the Journal. He has supplied us with editorial material and the news items of Detroit and vicinity. His advice and judgment has aided us on many occasions in solving confronting problems. We are sincerely appreciative of all that he has done in behalf of the Journal. It was unpardonable to not have acknowledged it in our report. We are well aware that Guy will promptly give us a calling for this acknowledgment, never the less we feel it is due him and thus cheerfully record it to his credit.

CORRESPONDENTS.

We have always felt that The Journal should include the medical progress and activities of the profession for the information of its readers and also to preserve such record for future reference and historical purposes. To incorporate these features in our publication the Council passed a resolution providing for the appointment of such correspondents from each Councillor District by the Councillor. The following correspondents have been appointed:

County	Doctor
Kalamazoo Academy	Dr. C. E. Boys, Kalamazoo.
Berrien	Dr. Edw. J. Witt, St. Joseph.
Cass	Dr. Geo. W. Greene, Dowagiac.
Charlevoix	Dr. Harry E. Shaver, Boyne City.
Cheboygan	Dr. F. C. Mayne, Cheboygan.
Alpena	Dr. C. M. Williams, Alpena.
Genesee	Dr. Arthur C. Blakeley, Smith Bldg., Flint.
Muskegon	Dr. Frank W. Garber, Muskegon.
Eaton	Dr. Phil H. Quick, Olivet.
Calhoun	Dr. Wilfrid Haughy, Battle Creek.
Monroe	Dr. Bryce Miller, Monroe.
Lenawee	Dr. I. L. Spaulding, Hudson.
Bay	Dr. L. S. Foster, Bay City.
O. M. C. O. R. O.	Dr. C. C. Curnalia, Roscommon.
Newaygo	Dr. C. D. Long, Fremont.
Huron	Dr. Mordiu, Bad Axe.
Sanilac	Dr. Mc Caul, Croswell.
St. Clair	Dr. Heavenrich, Port Huron.
Lapeer	Dr. Parker, Lapeer.

The Editor will outline in fuller detail the duties of these appointees in a personal communication. We believe such a plan will increase our members' interest in their publication. Incidently we call attention to the news notes and society news of this issue.

"INASMUCH AS YE HAVE DONE IT UNTO THE LEAST OF THESE MY BRETHREN, YE HAVE DONE IT UNTO ME."

A PLEA.

Peace comes elsewhere, but Hunger knows no Armistice in the Near East. With each six months that pass, some seemingly ultimate blow falls on Armenia and the Christian nations of the earth turn away at the sight with horror and relief—horror at the sight of blood, relief that it's all over at last—but out of the ruin and death of each fresh defeat and massacre, the Armenian people rise again to rebuild their fortune as best they may. Their stubborn persistence under continued attempts at extermination, is an extraordinary phenomenon, but the spectacle of one nation trying to club another to death, and failing because of the unquenchable vitality of its victim, is so unpleasant that we try to forget it. We do forget it, and the next news despatches informs us of another calamity. We cannot do much about it as individuals, and we don't, for reasons mainly political, do anything about it as a nation. The club descends the victim writhes, we hold our newspaper before our faces and read the stock quotations.

In that land of desolation and death, Near East Relief, under a grant of Congress, has been laboring for five years. Its work has been, and continues to be different from the work of similar organiatzions in other wartorn areas of the world. In the Near East the task is not only to feed, but to clothe and shelter a race of people driven by the despicable Turk into a small section of their homeland, far beyond the borders of the Turkish Empire—a broken, tortured, fugitive people without arms or tools, without food or shelter, in an unwanted corner of the world to starve. Into this cold mountainous region refugees—women and children—homeless and without food, are marching daily. Truly, it presents a wretched picture and in all this land of desolation and sadness, there is but one big bright hope and that comes from not out of the East as in the olden days, but from out of the West. America's big, warm, generous Christian heart that pulsates love and kindness to a forlorn and victimized people whose lot has been indescribably bitter.

Each morning, in two hundred and twenty-nine orphanages, one hundred and ten thousand little children, awake and kneel and pray, and in their infant prayers, they always remember to ask that "The Almighty bless America," for these little ones are being fed, clothed, sheltered and educated, thru America's contributions to Near East Relief.

This year Forty-two hundred orphans confidently await Michigan's response to their appeal. The State Committee for Michigan, made up of our best citizens, have been giving conscientiously of their time, energy, and money so that our State shall not fail in its responsibility to these little unfortunates.

On account of the financial conditions, there is a serious question whether sufficient funds will be raised to meet this obligation. A number of business and professional organizations are helping. The Michigan Medical Society must do no less than its full share.

It costs $180.00 a year to provide the food, clothing, shelter, and education for one of these orphans. We have been allotted fifty, which means that on or before April 1, 1921, if we measure up to our job, that we will turn over to the State Committee for Near East Relief $9,000.00, and will be assigned fifty of these kiddies for our own.

Contributions of twenty per cent of our professional income for one day will do the job. Can we do a bigger, more constructive, task than this?

This editorial constitutes our appeal for these orphans, and remember, although we may get tired of giving, these little children also get tired of starving. **Your first thought is your best thought. Do it now!**

I WONDER

I wonder if I have the right
To let myself forget to care
How children shiver in the night
Where all is dark and cold and bare.

My little ones are free from dread
And sheltered safely from the storm;
Their eyes are bright, their cheeks are red,
Their laughter glad, their clothing warm.

But other little ones must weep,
And face new dread with each new day,
Where Hunger's fangs bite very deep
And Want sits like a ghost in gray.

I have no need to share the blame
If pallor dims the orphan's cheek;
I have not made the cripple lame,
Nor taken from the poor and weak.

If children who are hungry sigh,
If others who are cold complain,
No guilt lies on my consience—I
Have never wronged them for my gain.

But, knowing how they weep at night,
Where all is dark and cold and bare,
I wonder if I have the right
To let myself forget to care?

—S. E. Kiser.

MARCH IS STATE MEDICAL SOCIETY NEAR EAST ORPHAN ADOPTION MONTH. LET'S GO!

Dr. F. C. Warnshuis, Secr'y, State Medical Society, 415 Powers Theatre bldg., Grand Rapids, Michigan.

I hereby agree to contribute to the State Medical Society Near East Relief, 408 West Fort Street, Detroit, Michigan the sum of _____Dollars, in equal monthly payments as indicated below.

$15 per month
$10 per month
$ 5 per month
$ Cash with pledge

_____
signed

_____
street

_____
city county

Make all checks payable to Near East Relief.

Dr. F. C. Warnshuis, Secr'y, State Medical Society, 415 Powers Theatre Bldg., Grand Rapids, Michigan.

Please enclosed find the sum of _____Dollars, which is my contribution to the State Medical Society Near East Orphan Adoption Fund.

_____
signed

_____
street

_____
city county

Make all checks payable to Near East Relief.

DEAN VAUGHAN RESIGNS.

Although for several months past vague rumors had reached us that affairs were being so shaped in the medical department of the University as to call for changes in the faculty and that the resignation of Dean Vaughan would follow, we lived in the hope that the latter change would not be accomplished. During the month, newspapers announced that Dr. Vaughan had tendered his resignation, to President Burton, to become effective at the close of the present college year. This resignation announcement will be received with manifest regret by the profession at large.

Personally, it was not our privilege to have been one of his students. We have, however, been permitted to come in contact with him upon numerous and varied occasions and as we gained a new viewpoint of his wisdom, scholarly attitude, and broad-mindedness, we found our reverence and respect for him to grow. As we perceived his genius manifest itself, his judgment attested to and his accomplishments record their progress in our medical sphere we automatically acknowledged his leadership. Then as we witnessed the love and esteem with which he is held by hundreds upon hundreds of Doctors throughout the country and personally having been the recipient of his kindnesses, council and assistance we held him in filial regard.

We remember eight years ago when in attendance at the American Medical Meeting in Minneapolis when he was nominated and elected President of our National organization, men from every state endorsed his nomination in personal conversation, accompanied by expressions of love and respect for Dean Vaughan. We all remember Dr. Work, President of the A. M. A., stating at our meeting in Kalamazoo, last May: "It is unnecessary to say—you all know that Dr. Vaughan is already known as the greatest man in American medicine in Michigan, and a great many of us believe he is the greatest man in American medicine today." This latter sentiment is more prevalent in this country today. Space will not permit us to set forth the reasons that support such a declaration and appraisal. Dean Vaughan's resignation will be a distinct loss to the University not alone by reason of sentiment but from prestige and ability. We deeply regret that it has been accepted.

We are not informed as to his future plans but we do know that it is the sincere wish of our members that whatever they may be we all tender him our hearty wishes for continued health and happiness. We shall never relinquish our right to acknowledge his leadership. We pledge our sincere concern in added attainments that he is sure to acquire and achievements that will be wrought by him for and in our behalf and welfare as well as that of the public at large. His "Boys" will ever remain "His Boys" and well wishers.

Editorial Comments

We are not concerned so much with the practice of chiropractic or any other cult that may hold out to cure or alleviate human ills. What concerns us most is that the followers of these cults shall be compelled to receive such training and instruction as will enable them to recognize the limitations of their treatment in the light of our knowledge of etiology and pathology of disease. This, in order that a trusting public may not be imposed upon by having the true pathology go unrecognized by these practitioners and subsequent increased complications prevent a cure or relief that might otherwise have been accomplished. We must awaken a public realization that no individual is competent to diagnose or treat a given condition with but a ninety day education. This is the basis upon which information regarding these cults must be imparted to the public.

Modern dances are receiving considerable attention as to their evil influences by the better type of individuals. We adventure to declare that the "jazz," "shimmy," "cheek to cheek" and similar "holds" are due for the discard. But it isn't these dances that alone tend to demoralize the rising generation. The fault lies largely at the door of parents who seem to have forgotten that nine and ten o'clock are bedtime hours for children and who have been permitting them to remain out until one or two o'clock. Small wonder that over 20 per cent of pupils in a certain high school failed to obtain passing marks in their recent examinations.

It will be remembered that at the time a special meeting of the House of Delegates of the A. M. A. was called last November, Wayne County adopted a resolution requesting Michigan Delegates to oppose the increasing of the subscription price of the *Journal of the A. M. A.* The State Secretary was the only delegate from Michigan that attended that special meeting and when the vote was taken he voted to increase the subscription price. Some criticism of that vote now comes to us. If the critics will read the report of that special meeting, the statement of finance, the obligations incurred by the A. M. A. which must be paid out of the published amount of surplus and the other statements made by the trustees of the A. M. A., we feel assured that had these facts been available before the Special Meeting no opposition would have been expressed. In view of them the Secretary did not see

how he could oppose an increase of subscription price, nor could he feel he was recording Michigan's attitude if he voted "No." We are of the opinion that our vote represented our members desires, in the light of the statements submitted revealing the necessity of a temporary increase in subscription price. These critics are again referred to the minutes of that meeting.

Remember your income tax returns are to be filed by March 15th. We trust you have had a pleasant time working over that puzzling blank.

Doctor, if you haven't paid your dues you are in temporary suspense and deprived of medico protection. Please see your county secretary if you are in arrears.

March may be a bleak and dreary month but this March is sure to be a bright one for no matter what the weather may be it cannot dampen the bright cheer that will be in evidence by reason of the inauguration of Harding and Coolidge.

Make your reservations for rooms at Bay City now. The Wenonah Hotel will be our headquarters. Bay City will arrange to care for the comfort of every member, but get your reservations now.

Just run through our advertising pages before you lay this issue aside. These advertisers are your patrons and merit your support.

Correspondence

Detroit, Feb. 11, 1921.

Dr. Frederick C. Warnshuis,
Michigan State Medical Journal,
Grand Rapids, Michigan.

Dear Doctor:

Could you kindly give us some notice in regard to the Post-graduate work in progress at the Woman's Hospital, 443 E. Forest Ave., Detroit, Michigan.

Dr. James E. Davis is giving a course of 20 hour lectures in gynecological pathology as follows:

Female external genitalia	2 hours.
Uterus	3 hours.
Oviducts	2 hours.
Ovary	2 hours.
Peritoneum	1 hour.
Urinary system	3 hours.
Inflammation	3 hours.
Neoplasia	4 hours.

Following Dr. Davis's course Dr. Harry Schmidt will lecture to us upon Internal Medical subjects allied to obstetrics and gynecology. In another year we expect to amplify these courses very much.

Courses in obstetrics, gyenecology and surgical anatomy are being arranged for another year.

Any desired information about these courses which are open to any physician of good standing will be gladly furnished if you will write to Dr. C. Hollister Judd, 1229 David Whitney Bldg., Telephone Cherry 1120.

Truly yours,
C. Hollister Judd,
President of Medical Board.

Detroit, Feb. 9, 1921.

Dr. F. C. Warnshuis, Secretary-Editor:

In reply to the circular letter "County Secretaries' Letter No. 2" and "1," dated February and January, respectively.

Wish to say that I believe it would be a good thing to have a Secretaries' Meeting in connection with the Annual Meeting of the State Society in Bay City, May 24-26th. I for one would be quite willing to take part in any way that you may suggest to help in such meeting.

The February Journal has just come to hand—a day or so ago—but in informal conversation with many of the members, I find that a great many have taken an evening off to read it, and particularly the stenographic report of the Conference Meeting at Ann Arbor.

With regard to the Clinical Teams of the State. We seem to be pretty well supplied every Monday night so far as programs are concerned. Walter Manton is Chairman of the Program Committee and it might not be out of place to approach him directly on the subject. Harper Hospital is giving weekly Clinics, also Dr. James E. Davis and Dr. H. Schmitt are giving courses in Pathology and Internal Medicine at the Women's Hospital. So that we seem to be fairly well provided for in the way that the Clinical Teams of the State Society could function.

With regard to getting correct addresses of our Members. We have done about everything possible to notify each member of the necessity of sending his address direct to the State Society, as well as keeping us posted as to his whereabouts, and of his new street number.

With regard to the percent of members attending each meeting. That varies. Our quarters—that is the Auditorium of the W. C. M. S. will hold 400 persons. The membership numbers in the neighborhood of 1,050. We have a regular attendance of approximately 40 per cent. and consider this a very good attendance inasmuch as we are not aware of a larger percentage of any organization attending regularly.

Four Hundred Eight members paid their dues in full to the Society during the month of January. Comparing one year with another we consider this a pretty good showing.

In regard to the physicians and surgeons in Detroit and Wayne County who are not members. We are getting them in gradually; that is, where they are considered ethical. We have a method of investigation which is quite effective, so that not all who apply are admitted to membership.

You already have a list of the Delegates and Alternates to the State Meeting in May.

Since the war has ceased and the men are back in the harness, there is a marked enthusiasm in connection with the Medical Society. The pro-

gram has been varied by the introduction of two evenings during the past two months devoted to vaudeville of a very superior sort conducted by members of the Society, on which nights the Board of Censorship was bound, gagged and rendered ineffective. This particular evening of entertainment is taken care of by our Entertainment Committee composed of all-live members.

With very best wishes, and wishing always to co-operate with you, beg to remain,

Most cordially,
Wayne County Medical Society,
J. H. Dempster, Secretary.

Frederick C. Warnshuis, M.D.

Dear Doctor:

No Sir, not for publication, just to tell you what folks think way back here in the jack pines.

When they go out to make laws for the doctor or the farmer, Lord bless the beneficiary.

Every move for medical legislation ties a new hay wire around the physician.

The charlatan has ten times the privilege right in Grand Rapids that the regular physician enjoys.

None of the faddists have to pay out big money for antitoxin. They are not liable for defective work.

They get the velvet.

Let us have a law to furnish them antitoxin. There are plenty of good physicians soft enough to teach them how to use it.

And now for State Medicine. Divide up the territory to suit the politicians.

In fact we can dispense with the physician entirely. Make it a political job, instructions from Lansing.

If a man don't believe in State Medicine he is a socialist or maybe if that don't fetch him a bolshevist.

Of course socialism is too paternalistic. Self determination is a big word, but it should not apply to a citizen's right to choose a doctor, nor to a doctor's right to choose his line of treatment.

It is too bad the doctors—small ddd now—are not organized. Gee, what made all those fellows come down to Ann Arbor? Bet they wanted one of those ten thousand dollar jobs. No Sir, Got to go outside of Michigan to get men good enough to doctor rich folks for big fees. One could have said to Dr. Burton: "In this room are some of the best physicians in America, yet some of these able and skillful practitians have acquired their knowledge, their skill and their humane methods working upon poor patients."

"Learning the difference between the treatment of the rich and the treatment of the poor" ought to be an argument for the advocates of State Medicine, Or is it the beginning of it?

Any way Doctor Burton told you when it was train time.

Dr. Warnshuis, you are doing great work. I am proud of the Journal, and I am beginning to be proud of the Association.

R. H. W.

REPORT OF DELEGATES FROM THE WAYNE COUNTY MEDICAL SOCIETY TO A CONFERENCE AT ANN ARBOR.

To the Wayne County Medical Society:

The undersigned, as delegates from this society to attend a conference called by the medical faculty of the University of Michigan, beg to make the following report:

In response to an invitation extended to the medical profession of this state by the faculty of the Medical School of the University of Michigan, your delegates, together with a large number of physicians from various parts of the state, met with the faculty and the president of the university in the Michigan Union, Thursday, January 13, 1921.

The conference was called for the stated purpose of explaining to and discussing with representatives of the medical profession of Michigan, plans which had been formulated by the university for hospital construction and organization and for the teaching of medicine and surgery.

President Burton of the university presided, and in an address of some length presented and explained the general features of the proposed plan. In brief, this consisted in the adoption of the diagnostic-group plan of faculty organization and medical teaching, with full-time professorial appointees, having adequate salaries, who were not to be allowed to engage in the private practice of medicine. The University Hospital, now under construction, was to be carried forward and completed so as to provide ample accommodation for all necessary patients, its total capacity being somewhat indefinitely given as from 800 to 1,000 beds more or less. In this hospital proper provision was to be made for two classes of patients:

1. Those who paid nothing for medical or surgical services.

2. Those who paid to the Hospital for such services fees, more or less equal in amount to what they would have paid for the same service to physicians or surgeons in private practice.

This latter class of patients, and the income derived from them, was stated by the President, as essential not only to the teaching program, but also to the financial support of the Hospital. How many of these patients, who might properly be called "private," as distinguished from the first named class or "State" patients were necessary to the plan, was not stated, but there was no suggestion as to any intention of limiting their number.

A free discussion followed, in which physicians from various portions of the state as well as several of our own delegates took part. With one exception, and that a non-delegate, the opinions expressed agreed in utterly refusing to endorse any plan which provided for the care and treatment by the University of any patients who either paid for such treatment, or were properly able to pay for it.

Such portions of the program as related to a change or betterment of the methods of instruction in medicine now in use in the University, by which a higher standard of excellence was to

be secured, either for the faculty or the students, was generally approved, but the proposal to have the State of Michigan enter into the private practice of medicine and surgery through the doors of the university, was most definitely and emphatically disapproved of by the medical profession as represented at this conference.

Your delegates beg to offer the following resolution as part of this report:

The Wayne County Medical Society at its general meeting on January 17, 1921, resolved:

1. That any plan or intention on the part of the authorities of the University of Michigan to construct and use any part of any university hospital for the treatment of patients able to pay for medical or surgical services, meets with its entire disapproval.

2. That to charge patients in the University Hospitals or any other State hospital or institution, for medical or surgical services rendered to them by employees of the State, is a dangerous and vicious proposal and should meet with no approval from any social group in this commonwealth.

3. That it is the opinion of this society that a high standard of medical education can be secured and maintained in the University of Michigan both in its class rooms and its hospitals by means other than those that are now proposed by its faculty, and in such a way as to be to the advantage of both the medical profession and the community itself.

(Signed) J. B. Kennedy, Geo. E. Frothingham, R. L. Clark, Charles F. Kuhn, Max Ballin, James E. Davis, Angus McLean, Walter J. Wilson, Jr., J. H. Dempster, Frank B. Walker, Harold Wilson, E. H. Sichler, F. B. Tibbals, H. A. Luce—Delegates.

A LETTER RELATING TO CLOSED HOSPITALS.

The proposition of the closed hospital resolves itself into the discussion of the following factors:

1. Prostitution of a Public Institution in the interest of personal emolument.

2. The necessity of secrecy or isolation of the few for the purpose of furtherance of science or investigation.

3. The exclusion of the young professional man from the privileges of hospitalization of his patients, and denial of inspiration from association with the more experienced.

4. Whether the State Board of Registration or a self appointed Board of Censors shall constitute the Tribunal to pass on one's fitness to practice or not to practice medicine.

The majority of hospitals established for general care of the community's disabled, aside from purely municipal ones, have been built by private contributions, with the intent of the donors that such contributions would thereby best serve the public of the community. This service was intended as much for the citizen as for the physician. I question if there was any intent on the part of the contributors to provide an institution presided over by a clique of physicians whose purpose was to exclude citizens and physicians who failed to subject themselves to their jurisdiction.

Under the guise of advancing scientific medicine and the prevention of practice by men unskilled in the art of medicine the staffs of the closed hospitals propose to appoint themselves the arbiters of what does not constitute good practice. Who, may I ask, will censor the work of the hospital staff? Are they immune from errors of technic and good judgement? Richard Cabot of the Massachusetts General Hospital in Boston, Mass., in a published statement not long ago admitted that their records checked by autopsy examinations showed only 30 per cent. of correct diagnosis. I question if any worse record can be made by men not admitted to the staffs of the closed hospitals. Can the staff members of the closed hospitals prove by records that all the operations were justified by permanent cures? In the event patients desiring admissions are deprived of the service of their attending physician, why must they seek the advice and service of the staff physician? What is the object? With the leverage of staff appointment the patient is pried loose from his family physician and forced into the hands of some one appointed to the staff. For what? Science! No for money. Who designates the staff physicians as the ultra men of science. The same assumption that constitutes a Christian Science Healer. Faith in themselves that they are such.

There is no record in Historical medicine or proof in modern achievement that secrecy or work behind closed doors is a necessity in the furtherance of pure science. The great discoveries, have in the main been made by men who practiced in the open, not in the cloister. Many of these have come from the general practitioner, not the hospital man. McKenzie, Jenner, and Koch made their greatest investigations while still in general practice. The great minds of history were not developed in private but in free intercourse with the public.

Under the closed hospital regime the young graduate can treat his patients as long as they remain at home. Once they cross the threshold of the hospital, he is done; they become the "property" of the hospital staff. Will the fees be larger than those charged by the young graduate? Yes by a large majority. In whose interest? The patients? The young physician's? No; entirely in the financial interest of the hospital staff. Will the young physician benefit by observation of these super men and their operations? No; he will go back to the outskirt happy in the thought that he has been a good bird dog for the hospital physician. Will the hospital physician make any mistakes? If he does he will be protected by the closed system and his grave yard will not have his name plate at its entrance.

As a matter of record physicians are licensed by the state to practice medicine. The license is obtained by examination and a certified record of educational attendance in reputable schools and colleges over a period of seven years. In

some states eight years. The law provides for the safety of the public by well enforced statute. If eligible under this statute why should a self appointed board of Hospital appointees seek to supersede the board established by the state. If there be necessity in the latter than why not abolish the former. If properly licensed by the state board why allowed to prey on the public, outside the hospital and not in. It is far easier to get down to the hospital in a closed car at nine a. m., smoke a few cigarrettes in the coat room, tell a few stories, make rounds in about two hours and pick up a few hundred dollars from the cases treed by the poor old excluded general practitioner, than to get out and hunt the game themselves. I have no doubt these super men who aim at a dictatorship in medicine through the means of the closed hospital feel that the manual toil of general practice would coarsen their refined intellects and dull the fine tactile sense that has produced more mistakes and a finer conceit than anything in medicine.

There are some things it is true, that are best closed. One of these is the staff of the closed Hospital. It should be closed from physicians and patients, that they may no longer sicken at a subterfuge as apparent as it is weak in the principles of fairness, equality and justice.

Dr. N. L. Hoskins.

Deaths

Doctor C. A. Gottman was born in 1869 and died February 10, 1921. He graduated from the Medical Department of the University of Michigan in 1890 and has practiced his profession in Detroit for the past 30 years. Doctor Gottman was a 32nd degree Mason and a member of the Redford Lodge. Apart from his profession he was intensely interested in astronomy and psychology.

Doctor Albert A. Parisot was born in 1869 and died in Mt. Clemens on February 3, 1921, of heart disease. He had been in poor health for the past year. Doctor Parisot graduated from the Detroit College of Medicine in 1895. He was one of the best known figures in the public eye in Macomb County for a score of years. He was one of the founders of the Knights of Columbus in his district and was three times elected Mayor of Mt. Clemens. His last term expired in 1917.

Mrs. Jennie Henderson of Detroit, wife of Doctor William R. Henderson and mother of Doctor William E. and Doctor Harold Henderson, died January 20, 1921.

Dr. William Elliott died January 15th of heart disease at his home in Escanaba.

Dr. Elliott was born near Owen Sound, Ontario. Surviving are the widow, one son and one daughter.

The death of the following doctor, not a member of the Society, has been reported: Dr. L. K. Hunter, Baron Lake.

State News Notes

The following physicians are members of the Detroit Curling Club: Doctors J. D. Mathews, F. B. Tibbals, F. W. Robbins, Charles Kennedy, E. C. Watson, Dale M. King, Frank Walker, Roger Walker, W. H. Morley, H. W. Paggemeyer, Harold Wilson, W. D. Ford, Hermon Sanderson and Thomas Davies.

The Canadian Curlers have practically won all their matches with Scotch and English teams. Doctor F. W. Robbins, of the Detroit Curling Club, is skipping one of the Canadian rinks. Several years ago the Caledonian curlers visited Canada including stops in Detroit and Duluth.

During the last part of January, Doctor F. B. Tibbals, President of the Detroit Curling Club, took four rinks of curlers to Toronto, Brantford, and Montreal for friendly matches with the Canadians.

On January 31, 1921, a smoker and vaudeville under the direction of the Entertainment Committee was pulled off in the Wayne County Medical Bldg., Detroit. Most of the entertaining was done by the members themselves. Doctor E. P. Mills told a number of "Highland Park Stories" including his famous effort "The Telescope." Dr. Van Der Velpin played two numbers on his saxophone which was followed by Doctor Gilbert Anderson with his "Balloon" and other stories. Doctor B. H. Larsson led his "Floradora Sextette (½)" on his violin. Doctor G. K. Sipe appeared as a minstrel and kept the house laughing. His Frank Kelley story will cling to the minds of many for some time to come. After G. H. McMahon sang several songs, the Experience Clinic was conducted by Doctor L. J. Hirschman and Doctors B. R. Hoyt, Mooney, Schmidt, and J. B. Kennedy presented cases in the form of anecdotes of the past. The entertainment closed with the "Waynoscope" showing the production of the human voice. Between 300 and 400 were present.

Important plans are under way by Surgeon-General Ireland for the centralization of all schools of instruction of the Army Medical Corps. Two special service schools will be maintained with various subdivisions, one the Field Medical Service School at Carlisle Barracks, Pa., and the other the Army Medical School at Washington, D. C. The instruction at the Carlisle School will have for its object the ready adaption of the civilian practitioner to the life, work and customs of the army and will offer progressive courses covering all subjects from recruiting to the organization, functions and administration of medical units. The Army School at Washington will offer to commissioned graduates from the Carlisle School and to selected officers of the National Guard and Organized Reserve, what might be characterized as postgraduate courses in certain professional subjects in their application to military medicine. All clinical work will be conducted at the Walter Reed General Hospital. There will be established a school for nurses, school of pharmacy and a school for en-

listed specialists. A medical research laboratory and a school for flight surgeons will be maintained at Mitchel Field, Long Island, with the object of training special medical officers for duty at flying fields.

POST GRADUATE LECTURE WOMAN'S HOSPITAL, DETROIT, MICH.

By James E. Davis, A.M., M.D. Pathologist.

Wednesday January 19, 11-12 a. m. and Friday January 21, 11-12 a. m. Subject—Female external genitalia.

Wednesday and Friday Jan. 26, Jan. 28, and Feb. 2, 11-12 a. m. Subject—Uterus.

Hereafter every Wednesday and Friday from 11-12 a. m., until the following subjects are completed:

Female external genitalia	2 hours
Uterus	3 hours
Oviducts	2 hours
Peritoneum	1 hour
Urinary system	3 hours
Inflammation	3 hours
Neoplasia	4 hours

These courses are open to any member of the Wayne County Medical Society.

Dr. Harry Schmidt will give a course in Internal Medicine which will begin after Dr. Davis finishes.

For full information call Dr. C. Hollister Judd. Cherry 1120.

The Michigan Department of Health is trying to do its part in making Michigan first in Health. It issues its monthly bulletin to 13,000 readers, it distributes public health literature, it assists in the inspections of school children, it maintains laboratories for milk and water analyses, it conducts Wassermann tests for the service of health officers and physicians, it furnishes lecturers on public health topics, it assists in arranging "health weeks" for any community, it loans exhibits for health campaigns, it maintains traveling health clinics, it gives expert assistance in establishing baby clinics, it assists in establishing county nursing systems, it offers you the privilege of a loan library on public health subjects, it sends prenatal instruction letters, on request, to expectant mothers, it makes confirmatory laboratory diagnoses of all types, it offers treatment for venereal diseases in 11 city clinics, it sends material to health officers for the swabbing of children's throats, it uses six education moving picture films and 1000 health slides, it conducts investigations in stream and lake pollutions, it advises on water purification and sewage disposal, it keeps the 6,500 physicians and health officers informed of health conditions throughout the state, it distributes arsphenamine at cost, it hospitalizes infectious cases of venereal diseases, it aids communities in Schick testing school children, and it has corps of physician inspectors to aid communities in control of epidemics.

Lent D. Upson and Robert Goodrich of the Governmental Research Bureau, called on the coroners Doctors James Burgess and Doctor Jacob Rothacker the latter part of January to discuss the proposed bill for the reform of the coroners' office. The Wayne County Coroners told them that the coroner's office in Detroit under the present regime is run efficiently and economically and at a far less expense. than in other cities of its size. Both Coroners favored the proposed home rule bill and the proposed change in handling the city and county business. If in carrying out these reforms a better way of conducting the coroner's office should be worked out, they would be heartily in favor it it. They feel that the new bill is designed to give more authority and political pull to an existing board. This board wants the power to name the medical examiners who under the proposed new law, will replace the coroners. They fail to see where this will benefit the public. Under the present law the coroners are elected directly by the people.

Compulsory training of high and normal school teachers in hygiene, diatetics and preventive medicine so that they could detect the presence of infectious diseases among school children is being urged by several Detroit physicians. "Health officer Vaughan of Detroit informs me that his nurses detected 8,000 case of infectious diseases among school children during the past year," said Doctor J. B. Kennedy. "The teachers should be trained to do this work so that cases would be discovered and measures taken before infection of others was possible." Doctor Angus McLean will aid Doctor Kennedy in bringing the matter to the attention of the various medical societies.

The will of Julia Frances Owen of Detroit provided for the following institutions: Home of the Friendless ($10,000), Women's Hospital ($10,000), Protestant Orphan Asylum ($10,000), Children's Free Hospital ($10,000), Girls Friendly Society ($35,000), Florence Crittenden Home ($5,000), St. Luke's Hospital ($5,000), and Grace Hospital ($5,000).

At the request of the Detroit Department of Health, the Council on February 15, 1921, ordered the placing on the city ballot for April 4th election of a proposal to bond the city for $3,000,000 to build a 1,000 bed General City Hospital on the city's vacant property just north of the Herman Kiefer Hospital. If the proposal has the people's approval, construction will start immediately. Plans for the building already have been drawn. These plans were paid for from the $25,000 appropriation made by the Council about a year ago. The Department of Health intends to run this institution as an "open hospital" that is, its services will be available to the patients of all reputable physicians whether they are members of the hospital staff or not. It will take both free and paying patients as do all general municipal hospitals.

Doctor Harold Wilson, President of the Wayne County Medical Society, has appointed Doctors G. E. Frothingham and H. A. Luce to membership on the Legislative Committee, now com-

posed of Doctors J. B. Kennedy (Chairman), F. B. Tibbals, and Angus McLean.

The program of the general meeting of the Wayne County Medical Society for February 21, 1921, was "Medicine and The State." Mr. W. G. Curtis, President of the National Casualty Company, spoke on "Menace of Health Insurance" and Mr. J. M. Eaton, Member of Association for Labor Legislation, on "The Medical Problem from the Standpoint of Industry." The First District Dental Society and the Detroit Retail Druggists Association were guests of the Wayne County Medical Society that evening.

The Council of Physicians and Surgeons of Ontario appoints yearly 2 examiners on surgery, 2 on medicine and preventive medicine, 2 on midwifery and diseases of women, and 2 homeopathic examiners. The passing mark in Ontario is 60 per cent. in all subjects while in Michigan it is a 75 per cent. average with no subject below 50 per cent.

The fees differ widely in Ontario and Michigan.

	Ont.	Mich.
Matriculation endorsement	$ 25.00	$00.00
Examination	75.00	25.00
Certificate (lithograph)	5.00	1.50
Reciprocity	100.00	50.00
Annual assessment	2.00	00.00
Matriculation certificate to other provinces or states	25.00	00.00
Certificate indicating registration and moral character	5.00	00.00
Endorsement certificate of license to other provinces or states	25.00	5.00

(Ontario has a number of other fees).

The number of physicians in Ontario in 1918 was 3192 and in Michigan 4598.

The Ontario Council members get $125 per meeting in additional to their actual expenses while the Michigan Medical Board are reimbursed for their traveling expenses and a certain portion of their hotel bills.

During the past year the Ontario Council collected in fees $40,305.67 and its expenses were $36,395.51, leaving a balance of $3,910.16. During the same time the Michigan Medical Board collected in fees $13,505.71 and its expenses were $7,670.94, leaving a balance for the year of $5,-834.77.

The program for the Annual Congress on Medical Education, Licensure, Hospitals and Public Health (March 7, 8, 9, 10, 1921) appeared the latter part of January. The following men will take part, Doctors Blumer of New Haven, Mc Clanahan of Omaha, Hamilton of Minneapolis, Pusey of Chicago, Frazier of Philadelphia, Lancaster of Boston, Phillips of New York, Lovett of Boston, Young of Baltimore, Williams of Baltimore, Vaughan of Ann Arbor, Jackson of Minneapolis, Erlanger of St. Louis, Edmunds of Ann Arbor, Ewing of New York, Wilson of Rochester, Minn., Pepper of Philadelphia, Emerson of Indianapolis, Cabot of Ann Arbor, Billings of Chicago, Strickler of Denver, Bierring of Des Moines, Arnold of Boston, Pinkham of Sacramento, Goldwater of New York, Rankin of Raleigh, S. C., Crumbine of Topeka, Warnshuis of Grand Rapids, Hatfield of New York, George E. Vincent of the Rockefeller Foundation, R. L. Wilbur, President of Leland Stanford University and others.

Henry F. Vaughan, Health Commissioner of Detroit, recently visited Grand Rapids to study how the under-nourished school children are helped in that city by Health Commissioner Slemons and the Grand Rapids Board of Health. He reports some remarkable results have been obtained. Dr. Vaughan was so thoroughly convinced that he has included in the annual budget of the Detroit Board of Health $250,000 for this kind of work in Detroit. If allowed by the Council, it will be used to build a "Preventorium" at Northville, to accomodate 100 children. An institution such as this is only for children inclined to tuberculosis. Children who are only slightly under weight will be handled through the nutritional clinics which the Board proposes to establish in the public schools. The full co-operation of the parents is necessary for the success of this work. To accomplish this purpose the nurses will be sent into the homes to see that this is done.

A pleasant surprise party was given by Mrs. Beaumont in honor of Dr. Brainerd of Brainerd Hospital here. The event was attended by about 30 physicians from Alma and surrounding towns, and a pleasant program was given after an elaborate banquet, as follows:

Dr. S. E. Gardiner of Mt. Pleasant, toastmaster.

Piano solo, Dr. C. E. DuBois.

"The Early Days of Our Practice," Dr. F. J. Graham. Dr. Graham was called away and not able to return in time to read his paper, which was much regretted by all.

Vocal solo, Dr. W. E. Barstow.

Recreation, Dr. J. N. Day.

Vocal solo, Dr. E. H. Foust.

"Friendship," Dr. R. B. Smith. Also presentation of gold watch from the medical fraternity.

About 50 guests were present at the affair, which was held in the beautifully decorated dining room at the hospital. Mrs. Barstow of St. Louis and Miss Evans of the Masonic Home here, sang during the serving of the banquet.

Dr. Brainerd is 69 years old, has practiced surgery and medicine for 40 years, 35 of them in Alma. He came here from Fenton in 1886.

He bought the present site of his hospital 26 years ago, and began the construction of the hospital and completed enough of it so it was opened 25 years ago. He did three-quarters of all the work on it himself. He has an able corps of assistants with him at the present time, and an average attendance of eight patients per day.

A public hearing on Senator Johnson's bill to tax closed hospitals, was held February 15, 1921, before the Public Health Committee of the State Senate of which Doctor Lemire is chairman. Among the Detroit physicians who attended the hearing were Doctors W. L. Babcock, Harold Wilson, J. E. Maunders, F. A. Kelly, C. C. McClelland, R. J. Palmer, George Duggan, E. Collins, J. L. Lyston, C. Darling, J. E. Peterson, Neil Bentley, S. H. Knight, R. Stevens, J. T.

Watkins of Grace Hospital, C. G. Jennings, J. W. Vaughan, G. E. Frothingham, S. Hamilton, P. J. Morse of Harper Hospital, G. E. Chene, and A. G. DeWitt of Providence Hospital. Doctor J. D. Bradley of Eaton Rapids, Doctor J. Dubois of Grand Rapids, Rev. Father Michael of Ann Arbor and D. W. Springer, Secretary of the Michigan State Hospital Association were present from the state. Doctor O. B. Frye of Grand Rapids asked for another hearing so that the other side of the case might be represented. The Wayne County Medical Society has gone on record as opposed to closed hospitals but to date no action has been taken on the Johnson bill.

On February 17, 1921, Doctor T. A. McGraw, Jr. read a paper before the Detroit Medical Club on the Relation of the Endocrine Glands to Undergrowth. The Doctor showed lantern slides of the following types of dwarfs:

1. Cretin Dwarf (hypothyroidism).
2. Infantilism-Lorain Type (hypopituitarism-anterior lobe).
3. Achondroplastic Dwarf.
4. Hypophyseal Dwarf with Froelich's syndrome (hypopituitarism—both lobes).
5. Progeria (senility) (Sclerosis of all of endocrine glands).
6. True Dwarf.

He also showed a case of gigantism (hyper pituitarism). He stated that treatment is more satisfactory in the early or borderline cases. The results of organ therapy are slow to appear taking at least three months.

The officers of the next Annual Congress on Medical Education, Licensure, Hospitals and Public Health to be held in Chicago March 7, 8, 9, 10, 1921, are as follows: Doctors A. D. Bevan, Chairman of Council on Medical Education and Hospitals of American Medical Association; V. C. Vaughan, Chairman of Council on Health and Public Instruction of the American Medical Association; William Pepper, President of the Association of American Medical Colleges; D. A. Strickler, President of the Federation of State Medical Boards; and Frank Billings, President of the American Conference on Hospital Sedvice.

A table which appears in the January 1921 Bulletin of the Michigan Department of Health shows the monthly number of reported cases of various contagious diseases for a number of years back. We have taken the liberty to roughly group them as follows: Pneumonia and small pox are more prevalent in January, February and March; scarlet fever in February, March and April; meningitis and measles in March, April and May; whooping cough in May, June and July; typhoid fever and poliomyelitis in August, September and October; and diphtheria in October, November and December.

During the past year the Library of the Wayne County Medical Society has been the recipient of gifts of books and journals from the Doctors C. D. Aaron, H. L. Berman, Carl Bonning, H. R. Carstens, Ray Connor, G. E. Frothingham, T. M. Hart, C. W. Hitchcock, A. D. Holmes, David Inglis, R. C. Jamieson, G. J. Korby, A. Lappner, T. A. McGraw, Jr., C. E. Simpson, W. C. Stevens, A. Thuner and A. Windsor. Sixty-six new books were purchased during the year by the Library Committee.

The following are a few of the physicians who have been appointed to the attending staff of the Highland Park Municipal Hospital which will open this spring: Chief of Staff, George R. Andrews; Executive Committee, D. M. Greene (Chairman), G. R. Andrews, L. E. Clark, S. C. Crowe, W. N. Braley; Department of Medicine, G. R. Andrews (Chief); Department of Surgery, D. M. Greene (Chief); Department of Ophthalmology, Otology, Rhino Laryngology, M. M. Wickware (Chief); and Department of Pathology (Not filled as yet).

The announcement was made February 11, 1921, that the Colonial Hotel at Mt. Clemens would be remodeled and opened in about three weeks as one of the country's leading sanitariums. 400 beds will be provided at the start and the most modern equipment for the practice of radium therapy, Nauheim and other mineral baths and psycho analysis will be provided. About 20 physicians from Detroit and the East will make up the staff.

During the month of February Doctor R. M. Olin, State Commissioner of Health, gave a series of lectures in Detroit under the auspices of the health department of the Detroit Federation of Women's Clubs. "Michigan First in Health" was the lecturer's subject. He spoke in the Bell Telephone Bldg., the Club House of the Detroit Federation of Women's Clubs, Northwestern High School and the Second Baptist Church.

Doctor Oscar Klotz, Professor of Pathology inz the University of Pittsburgh, has been appointed a representative of the International Health Board of the Rockefeller Foundation for work in medical research and education in Sao Paulo, Brazil. It is expected that Doctor Klotz will spend a number of years in Brazil during which time he will serve as director of a pathologic institute. He will be assisted by several Brazilian physicians who have received their training in the United States.

A Czechoslovakian Commission for the Study of Public Health Administration in the United States is making a tour of the principal medical centers of the country at the invitation of the Rockefeller Foundation under the guidance of Doctor C. W. Wells of the International Health Board. While in Chicago, the members of the Commission spent an entire morning at the headquarters of the American Medical Association.

In California there is an annual tax on physicians which is payable January 1st of each year. The penalty for the non payment after 60 days is automatic revocation of the certificate which requires $10.00 fee for reinstatement. On the

basis of this annual registration the licensing board prepares a directory of all who are practicing the healing art in the state.

A Citizens Meeting was held in the Ball Room of the Statler Hotel, Detroit on February 17, 1921. Doctor George E. McKean, Doctor John S. Hall (Dentist), W. S. Lister, Allan Campbell, E. T. Marschner and Garfield Nichols spoke on "Our Public Schools." These men are all candidates for the two vacancies on the Detroit Board of Education.

On February 12, 1921, Senator Johnson of the Michigan State Senate met with the representatives of the various Detroit Hospitals and some members of the medical profession. Doctor J. B. Kennedy presided. They discussed the pros and cons of Senator Johnson's bill to tax the closed hospitals.

Doctor Plinn F. Morse of Detroit is devoting the hours from two to four afternoons to Consultations and Diagnostic Medicine at 987 Jefferson Ave., East. Doctor Morse was formerly Professor of Pathology at the Detroit College of Medicine and Surgery. He is Pathologist to Harper Hospital and to the Detroit Receiving Hospital.

The midwinter annual meeting of the Middle Section of the American Laryngological, Rhinological and Otological Society was held in the Webster Hotel, Chicago on February 22, 1921. The following Michigan Physicians are members: Don M. Campbell of Detroit, R. B. Canfield of Ann Arbor, Ray Connor of Detroit, H. J. Hartz of Detroit, B. R. Shurly of Detroit, and Harold Wilson of Detroit.

The first regular meeting of the Academy of Surgery of Detroit was held in the Medical Building, Detroit, January 21, 1921. The society were guests of the President, Doctor Angus McLean at dinner. In the evening Doctor Max Ballin read a paper on "Traumatic Cirsoid Aneurysm of the Hand" and Doctor Charles Kennedy on "Repeated Gastric Hemorrhages."

On February 8, 1921, the Fellows of the Detroit Academy of Medicine listened to a paper by C. J. Marinus, M.Sc. on "Some Factors Influencing the Therapeutic Value of Corpus Luteum Preparations" and to a second paper by W. H. Morley, M.D. on "The Interstitial Gland—What It Is and Its Supposed Function." Both of these were well illustrated with lantern slides.

The Highland Park Municipal Hospital will have 120 beds when it opens this spring. There is room on the grounds to build two more units which would make the capacity of the hospital 360 beds. The heating plant has been built sufficient to take care of this expected growth. The hospital land and buildings have cost the City of Highland Park so far nearly $750,000.

Dental School Clinics are costing the City of Detroit about 17 cents a pupil. An examination of 2,000 children last December showed 96 per cent. had some dental defect while in a school which had been participating in dental clinics for several years, only 58 per cent. of dental defects were found.

Doctor T. C. Lyster of the Rockefeller Foundation has gone to Mexico to make some observations on the present epidemic of yellow fever and offer the assistance of the Foundation in a campaign for the eradication of the disease. The President of Mexico has accepted this offer.

Doctor K. T. (Mike) Knode, graduate of the Medical Department of the University of Michigan 1920, who started on the Varsity Base Ball Team and who later played on the St. Louis National Team, has announced that he has retired from the field of baseball and that he will limit his endeavors to the practice of medicine in Grand Rapids.

The Detroit Hebrew Hospital Association expects to break ground for their new hospital about June 1, 1921. The site on the corner of Antoine and Hendrie Ave. is all paid for. Doctor W. L. Babcock, Supt. of Grace Hospital who has looked over the plans, states that this hospital when finished, will be one of the most attractive and up-to-date institutions that this section of the country has ever seen.

The maximum prison sentence, six months, was imposed, February 16, 1921, on John Wolhocki, of Detroit, convicted before Judge Cotter of practicing medicine without a license. According to the complainant, Wolhocki treated him for a disease which he did not have and charged him $100 for the treatment of the same. Major John Roehl collected the evidence in this case.

The Detroit Department of Health is making life just as miserable as it can for the medical quacks and men practicing medicine without license in Detroit. Major Roehl in behalf of this department has been most successful in collecting and furnishing the Prosecuting Attorney's Office with the material necessary for conviction.

The Department of Health estimates the number of under-nourished school children in Detroit at 9,000 or more. Many of these children are bordering on disease as a result of their condition.

The Memorial Hospital in Owosso will be opened about May 1, 1921. It will be one of the most modern hospitals in the State. It will contain two large operating rooms, a first aid operating room and will have a capacity of 58 beds. A nurses' home will be built in the near future.

According to announcement made by W. Barclay Parsons, Chairman of the Board of Trustees of Columbia University, plans have been formulated for raising $10,000,000 to build and endow

a new medical school in connection with Columbia University, to supplement the present College of Physicians and Surgeons.

On Tuesday evening, January 25, 1921, Doctor Guy L. Kiefer gave a very illuminating talk before the Detroit Academy of Medicine on "Public Health and Other Interesting Legislation for 1921." A resolution was passed unanimously by the Detroit Academy of Medicine endorsing the Public Health Bills, presented by Doctor Kiefer.

On January 8, 1921, an unfortunate accident occurred in Toronto. Two lady patients were given doses of diarsenol instead of neodiarsenol. They both died within 15 minutes after receiving the injection. The mistake was not recognized until after their death.

The annual meeting of the Detroit Tuberculosis Society was held the latter part of January 1921. Doctors H. M. Rich, B. R. Shurly and A. B. Wickham were elected to the Board of Directors. Doctor Rich is First Vice President and Doctor B. R. Shurly is Ass't. Treasurer.

On February 1, 1921, a dinner of 50 covers was held at the Hotel Harrington, Port Huron, in honor of Doctor T. E. DeGurse, Mayor of Marine City. On this occasion Doctor DeGurse was presented with a handsome silver loving cup by the citizens of Marine City.

On February 22, 1921, the Detroit Tuberculosis Sanitarium celebrated the Tenth Anniversary of its opening. The Board of Trustees sent out 3,000 invitations. Mrs. Kiefer, wife of Doctor Guy L. Kiefer, was Chairman of the Decoration Committee for this event.

St. Mary's Hospital of Detroit is one of the oldest hospitals in Michigan, having been organized in 1845. Recently new wings containing operating rooms laboratories and 200 extra beds have been completed. The hospital is opened to every reputable physician of the State.

Beginning October 15, 1920, the Attending Staff of Grace Hospital, Detroit, began a schedule of lectures to the Internes of that hospital. There will be 37 of these, the last being given May 27, 1921. The subjects seem to be very well chosen with a practical intent.

February 11, 1921, John Wolhocki of Detroit was found guilty in Judge Cotter's Court by a jury of practicing medicine without a license. Wolhocki contended he was a general office man for Doctor Witherell (730 E. Forest Ave.) He was remanded for sentence.

The February General Meeting of the Wayne County Medical Society was a two paper affair. The first one, by Doctor J. H. Dempster, was on The Physiological Action of and Therapeutic Indications for the X-Ray, and the second, by Doctor W. R. Clinton, on "The Treatment with Radium."

The January 29, 1921 issue of the Detroit Saturday Night contains nearly a full page article on "Public Health Will Suffer If State Curbs Doctors' Freedom," by Doctor Harold Wilson, President of the Wayne County Medical Society.

On January 28, 1921 Doctor Richard R. Smith of Grand Rapids was elected Surgeon of the Michigan Commandery of the Military Order of Foreign Wars of the United States at their meeting held at the Hotel Statler, Detroit.

A dance was given on February 17, 1921 at the Hotel Statler by the Lenox Patriotic Club for the benefit of the invalided soldiers and sailors now convalescing at the Marine Hospital and at the Detroit Tuberculosis Sanitarium.

The Highland Park Physicians Society which meets bi-monthly, has a membership of about 60. Doctor D. D. Stone is President, Doctor Wallace is Vice-President, and Doctor Beardslee is Secretary-Treasurer.

Upon the recommendation of its Board of Trustees, the Wayne County Medical Society on February 7, 1921 voted an assessment of $1.50 per member to cover the increased dues ($1.50) of the Michigan State Medical Society.

On February 12, 1921, the Board of Regents of the University of Michigan voted to raise the fees of the non-residents in the medical department from $35 to $200 and in the dental department from $25 to $200.

Doctor W. J. Seymour is President and Doctor H. A. Reye is Secretary of the Medical Staff of St. Mary's Hospital for the coming year. The Executive Committee is Doctors A. W. Blain, John Lee and L. L. Zimmer.

The Ohio State Medical Board elected the following officers for 1921: Doctors Charles E. Sawyer (President), Lee Humphrey (Vice-President), S. M. Sherman (Treasurer) and H. M. Platter (Secretary).

The Detroit Ophthalmological and Otological Club held its monthly dinner, February 2, 1921, at the Medical Building, Detroit. Following the dinner Doctor L. E. Grant presented a paper on the Ear in Ex Service Men.

Doctor W. H. Sawyer of Hillsdale has been renominated by the Republican Party for Regent of the University of Michigan. The Doctor has already served two terms.

Doctor and Mrs. Matthew Brady of Detroit left February 7, 1921, for an extend trip through the South. They will stop among other places at Virginia Hot Springs and New Orleans.

On February 24, 1921, following the Banquet of the American Congress on Internal Medicine, the Fifth Annual Convention of the American College of Physicians was held.

Doctor S. D. Beebe of Sparta has been appointed a member of the Wisconsin State Board of Medical Examiners to serve the unexpired term of Doctor H. W. Abraham, deceased.

The St. Clair Country Club elected Doctor R. D. Morand of Windsor Vice-President and Doctor W. G. Paterson of Detroit a Director at a recent meeting.

Dr. W. H. Sawyer of Hillsdale was endorsed for renomination for Regent of the University of Michigan by the Eaton and Bay County Republicans February 7, 1921.

Doctors George A. Tolman and Robert Foster of Highland Park attended some surgical clinics in Rochester, Minn., and Chicago during the latter part of February.

The Detroit Dermalotogical Association has been organized with Dr. Andrew P. Biddle and Dr. C. A. Doty as temporary President and Secretary.

Drs. O. L. Ricker, S. C. Moore, J. F. Gruber, P. W. Bloxsom, M. Doudna and F. J. Henry of Cadillac have formed a group association.

Doctor J. L. Henderson is a candidate of the Liberal Party for Trustee of the City of Hamtramck.

Mrs. Carstens, widow of Doctor J. Henry Carstens of Detroit, and her daughter, Miss Mildred Carstens, are spending the winter in California.

The members of the Samaritan Hospital Auxiliary Association of Detroit gave their Ninth Annual Ball at the Statler Hotel on February 7, 1921.

Doctor A. W. George was elected President of the Detroit Rifle and Revolver Club at their annual meeting in January.

James Alan Ridenour, son of Doctor and Mrs. Ridenour of Detroit, was born December 26, 1920.

Twin sons were born to Doctor and Mrs. Stuart Wilson of Detroit, January 29, 1920.

Doctor J. B. Kennedy was Toastmaster at the annual banquet of the Detroit Burns Club, held at the Hotel Tuller on January 25, 1921.

Doctor and Mrs. E. T. Tappey of Detroit left for Bermuda the last part of January.

The Fifth Annual Meeting of the American Congress on International Medicine was held in Baltimore, February 21-26, 1921.

Doctor E. R. Beckworth resigned as prison physician from the Ionia Reformatory, February 9, 1921.

Doctor H. C. Begle was re-elected President of the Detroit Congregational Union at the annual meeting, February 4, 1921.

The Detroit Department of Health expects to open their new Municipal Tuberculosis Hospital at Northville not later than July 1921.

Doctor and Mrs. George Potter of Detroit left the latter part of January for California. They will return about May first.

Dr. A. P. Jacoby has been appointed Chief of the Psychopathic Clinic in the Detroit Recorders Court.

Dr. G. E. Arnold has been appointed Health Officer of Albion. His predecessor resigned because of meager salary paid.

Dr. Herman Ostrander has been elected a member of the National Committee for Mental Hygiene.

During the month of February Doctor and Mrs. T. A. McGraw, Jr., of Detroit spent two weeks at Ormond Beech, Florida.

Detroit Medical Journal has discontinued publication.

Doctor A. N. Collins returned from California to Detroit the first part of February.

Dr. M. M. Hansen of Belding has moved to Sheridan.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. Secretaries are urged to send in these reports promptly

ACADEMY OF SURGERY OF DETROIT.

The Academy of Surgery of Detroit was formally organized at a meeting held at the Detroit Athletic Club, on December 7, 1920. The following officers were elected:

President—Angus McLean.

Vice-Presidents—H. W. Hewitt and Joseph Andries.

Secretary-Treasurer, Ira G. Downer.

The first regular meeting was held at the

Wayne County Medical Building on January 21, 1921, and the following program rendered: TRAUMATIC CIRSOID ANEURYISM OF THE HAND, Max Ballin. REPEATED GASTRIC HEMORRHAGE, Case report, Charles Kennedy.

The Society will be limited to general, orthopedic, and gynecological surgeons. The Society will hold regular monthly meetings. The membership is divided into three classes, Active, associate and honorary members. Active members are residents of Detroit, Associate members are residents of Michigan, Northern Ohio and Indiana, and Ontario. The following Honorary members have been elected: Theodore McGraw, Sr., Detroit; John Wishart, London, Ontario; C. B. DeNancrede, Ann Arbor, and H. R. Casgrain, Windsor, Ontario. Active membership is restricted to forty.

Ira G. Towner, Secretary.

BAY COUNTY.

A regular meeting of the Bay County Medical Society was held Monday evening, Jan. 10, at the Elk's Temple.

Dr. McLurg was unable to report from the Council meeting on account of his enforced absence from the city.

Dr. Chas. Baker gave a detailed and interesting report of the University Conference at Ann Arbor and the information enthusiastically welcomed.

The paper of the evening was read by Dr. Chas. L. Hess, of the local Society, on "Laboratory Methods as an Aid in Diagnoses."

The evening's business was routine and consisted mainly of committee appointments, President McDowell, announcing the committees which would have charge of the State Meeting.

The next meeting, Feb. 14, 1921, will be held at the Wenonah Hotel and will be addressed by Dr. F. C. Warnshuis, our State Secretary-Editor, of Grand Rapids, and Dr. R. M. Olin, State Commissioner of Health, Lansing.

The regular meeting of the Bay County Medical Society was held Monday evening, Feb. 14, at the Wenonah Hotel. The meeting, called to order at 8:15 was preceded by a banquet at 6:30.

The speakers of the evening were Dr. J. W. Deacon, State Epidemologist, and our State Secretary, Dr. F. C. Warnshuis.

Dr. Deacon gave an interesting account of the Ionia prison conditions which he described as "filthy—physically, mentally and morally." He explained the three legislative requests of the State Health Department, viz.

1. Transference of Department of Vital Statistics from the State Department to the Health Department.
2. The issuance of free antitoxins by the State.
3. The adoption of the "County Health Officer" plan.

The latter plan being essentially the replacing of some 700 heterogeneous health officers with about 50 trained physicians as full-time County officers.

Dr. Deacon then went into the question of the State Health clinics, explaining their intended function.

Dr. Warnshuis decried the "cuet and clinic" evils of medicine but urged the idea of diagnostic or consultation clinics. His reference to an apparent lethargy on the part of the legitimate profession to such ideas as the cuets and clinics was very timely.

He gave many of the society members a clearer vision of the State Society's activities, especially those of the legislative committee.

Dr. Warnshuis then outlined in detail the plans of the State Meeting for May.

The President appointed the following Committees:

Censors—Drs. Gallagher, Hess and Foster.

Program Committee—Drs. Slattery, Ch., Zaramba, Stewart, Dumond, Foster.

Reception Committee—Drs. Urmston, Ch., with whole Society as members.

Entertainment Committee—Drs. Perkins, Ch., Hauxhurst, Gallagher, J. W. Gustin, F. S. Baird, Crance.

Ladies' Entertainment Committee—Drs. Williams, Ch., Ely, Tupper with the wives of the Society's members.

Exhibit Committee—Drs. Loud, Ch., Stone, Trumble, Huckins.

Accomodations Committee—Drs. Dumond, Ch., Slattery, Foster, Zaremba, Stewart.

Arrangements Committee—Drs. Grosjean, Ch., Baker, T. A. Baird.

Printing Committee—Drs. S. L. Ballard, Ch., McEwan, Bergstrom, Lawrence.

The Society went on record as favoring:

1. The State Health Clinics.
2. The Legislative bills proposed by the State Health Department, viz.,
   (a) Free antitoxin.
   (b) County Health Officer plan.

After accepting an invitation of the Saginaw Medical Society to attend its meeting, Feb. 24, to hear Dr. Parnall, Supt. University Hospital, the meeting adjourned.

L. Fernald Foster, Sec'y.

CALHOUN COUNTY

The first monthly meeting of the Calhoun County Medical Society for 1921 was called to order in the Post Tavern dining room, Tuesday, January 4th, at 7:30 p. m., following a dinner.

The President announced that without objection the minutes of the last meeting, as published in the Bulletin, would be approved, and they were approved.

The Secretary read a communication from the University of Michigan Hospital, inviting a conference of representatives of the various medical societies and the profession on January 13th at Ann Arbor.

Moved by Dr. Stone that the Chair appoint a committee of two or three to attend the meeting in Ann Arbor. Supported and carried. It was also urged by several that as many members as possible attend this meeting.

The Secretary read a communication from the Exchange Club inviting this society to appoint a committee to confer with a similar committee from the Exchange Club and committees from various other organizations to study the advis-

ability of re-establishing in Battle Creek a Y. M. C. A, and if found feasible, to consider means.

Moved by Dr. Eggleston that the Chair appoint a committee of three to comply with the purpose of communication from the Exchange Club. Moved and carried.

Secretary read a bill from Phoenix Printing Co. for $7.85 for postal cards and $14.85 for 500 copies of The Bulletin; total $22.70.

Moved by Dr. Kimball that this account be paid. Supported and carried.

The Secretary read application for membership from Dr. A. W. Wooley of Battle Creek Sanitarium; this being the second reading.

Moved by Dr. Kimball that the rules be suspended and that the Secretary cast unanimous ballot of the members present for Dr. Wooley. Supported and carried. The Secretary cast the ballot and the President declared Dr. Wooley elected a member.

President Shipp asked Dr. Stone, chairman of the program committee, to take charge of the speakers. Dr. Stone made a short announcement of the year's program promising a very interesting one throughout the year. He stated that the speakers of the evening would discuss "State Medicine," Compulsory Health Insurance," and "Legislative Control of Fees." Dr. Angus McLean, President of Michigan State Medical Society, was called upon and gave a very interesting address. This was followed by Dr. G. B. Kennedy, chairman of the Legislative Committee of the Wayne County Medical Society, who also spoke very forcibly and feelingly on the above subjects. Both speakers invited questions and extensive discussion.

They brought out the fact that the Compulsory Health Insurance, started in Germany in 1883, and has succeeded not only in pauperizing the profession, but suspending the independence of the people, and the progressof the profession.

The discussion was opened by Dr. Toles of Lansing, followed by Drs. Crane, Kalamazoo, and Robinson, of Jackson.

Moved by Dr. Gorsline that the Calhoun County Medical Society as a body, and individually, go on record as opposed to the proposed legislation; also that a legislative committee of three be appointed by the Chair, and that the Society give its moral and financial support to the opposition to this legislation. This motion with the amendment as suggested by Dr. Kimball, and in its final form as above seconded and carried unanimously.

The discussion was continued by Drs. A. M. Hume of Owosso; G. S. Hafford, E. L. Eggleston, H. B. Knapp, R. M. Gubbins, R. F. Wafer, R. D. Sleight, R. E. Balch of Kalamazoo; Thomas Zelinsky, C. E. Boys of Kalamazoo; R. C. Stone.

Meeting adjourned. Attendance 71.

Wilfrid Haughey, Secretary.

GENESEE COUNTY.

The clinical section of the Genesee County Medical Society met January 28, 1921. Dr. T. S. Conover read a valuable paper on "Common Opthalmic Mistakes." Dr. J. G. R. Manwaring demonstrated the proper method of using Tarnier's Axis Traction Forceps. Dr. W. H. Marshall reported a case of Angina Pectoris and demonstrated a specimen showing Chronic Aortitis and Coronary Sclerosis.

At the regular meeting on Feb. 2, it was decided that this Society have a committee "to study and to report from time to time on the social tendencies in Medicine." One of the functions of this committee will be to become acquainted with legislation affecting our profession. Drs. H. A. Stewart, J. G. R. Manwaring and C. H. O'Neil were appointed for this purpose. Mr. A. McArthur, an entertainer, of Chicago was introduced and recited several poems of Eugene Field and J. Whitcomb Riley. Dr. V. D. Lespinasse, Prof. of Urology in the N. W. Medical School, Chicago, gave a splendid lecture, illustrated by lantern slides on "The Diagnosis of Urological Conditions." Of particular interest was his description of the methods of treating sterility in the male.

W. H. Marshall, Sec'y.

GRAND TRAVERSE-LEELANAU COUNTY.

The Grand Traverse-Leelanau County Medical Society met at a special meeting January 30, 1921, called by President H. B. Kyselka.

The following members being present: Drs. Thirlby, Swartz, Holdsworth, Lawton, Holliday, Tripp, Wilhelm, Kyselka, Rowley, Sladek, Gauntlett, Swanton, Minor.

Dr. E. L. Thirlby, who had just returned from Ann Arbor explained President Burton's plan for the new University Hospital and for Medical Education for the State of Michigan. All members participated in the discussion which followed.

It was moved that President Burton's plan for the new University Hospital and for Medical Education for the State of Michigan be endorsed by the Grand Traverse-Leelanau County Medical Society. Seconded. Carried unanimously.

Motion to adjourn. Carried.

Regular meeting Grand Traverse-Leelanau County Medical Society held February 2, 1921, at Dr. Lawton's office; the following members being present: Drs. Kyselka, Swanton, Lawton, Rowley, Gauntlett, Holliday, Sladek, Wilhelm, Thirlby, and Minor.

Minutes of the last regular and special meetings read and approved.

Considerable discussion took place relative to the present capacity of our General Hospital, and to the importance of insisting upon the necessary hospitalization of patients, where it is obvious that better work can be done by both the internist and the surgeon with more uniform and satisfactory results.

Motion to adjourn. Carried.

E. F. Sladek, Sec'y.

JACKSON COUNTY.

At a recent meeting of the Jackson County Medical Society the following officers for the year 1921 were elected:

President—Dr. E. S. Peterson, Jackson.

Vice-President—Dr. H. A. Brown, Jackson.

Treasurer—Dr. L. J. Harris, Jackson.
Secretary—Dr. T. E. Hackett, Jackson.

The Society meets the second Tuesday of each month at the W. A. Foote Memorial Hospital for a lunch followed by a clinic or a paper by an out of town speaker. The attendance at the two meetings have averaged 40 each.

The last regular meeting was held Feb. 8, 1921, and the membership enjoyed a most instructive clinic on "Diseases of the Skin," by Udo J. Wile, of Ann Arbor.

The Society has erected a memorial tablet for Dr. James A. Mc Zuillan, who was killed in action during the world war, Oct. 26, 1918. It is to be placed in the lobby of the Foote Memorial Hospital. Sunday, February 27, 1921, has been chosen as the day for unveiling the tablet. The address of the day will be given by Dr. Angus McLean of Detroit. The memorial will be public and will be held in the Elks Temple.

T. E. Hackett, Sec'y.

LENAWEE COUNTY.

I am enclosing a list of members of the Lenawee County Medical Society who have paid dues to date, together with check covering the same. Our new officers for 1921 are as follows:

President—Dr. C. H. Westgater, Weston.
Vice-Pres.—Dr. T. C. Krumling, Blisfield.
Secretary-Treas.—Dr. O. N. Rice, Adrian.

I was also instructed by the Society to ask you for a team on Fractures and Emergency Surgery and also one on Cardian and Renal Disease to come to Adrian some time during the year. I trust you will be able to arrange to that effect.

O. N. Rice, Secretary.

MUSKEGON COUNTY.

Muskegon County Medical Society met at Occidental Hotel, January 28, 1921, with President Cramer presiding. Following the banquet, Attorney Galpin and Wm. Jeannott appeared before the Society and asked that the Society consider the proposition of equipping one of the operating rooms at the new Mercer Hospital. On motion of Dr. A. P. Poppen, the following committee was appointed by the presiding officer to report at the next meeting: Dr. Geo. LeFevre, Dr. F. A. Garber, Dr. C. J. Durham, Dr. A. A. Smith, and Dr. E. S. Thornton.

Mr. Hokenga representing the American Legion addressed the society asking that all cases of illness among ex-service men be reported to American Legion headquarters. Approved.

Dr. Geo. L. LeFevre then gave a report of the Ann Arbor meeting following which Dr. C. C. Slemons, City Health Officer of Grand Rapids, discussed "Pending Legislation that Concerns the Doctor," namely.

1. A bill to transfer Vital Statistics from the office of Secretary of State to the State Department of Health.
2. Free distribution of antitoxin in State of Michigan, the State to ultimately manufacture their own antitoxin.
3. Appointment of County Health Officers.

After a discussion by Drs. Marshall, Addison, R. J. Harrington, Garber, and Jackson, on motion of Dr. Garber, the society voted in favor of the bills.

Dr. Durham moved that the president select two members of the society to discuss Botulinus poisoning at a meeting in the near future. Drs. Keilin and Addison selected.

A communication from the Secretary of Oceana County Medical Society, asking Muskegon County to arrange for one of the state teams to appear in Muskegon some time after May 1, 1921, at which their County Society would attend the meeting, sharing the expense. Approved and filed.

Thirty-two members were present.

Meeting adjourned.

E. S. Thornton, Secretary.

NEWAYGO COUNTY.

The annual meeting of the Newaygo County Medical Society was held at the office of the president Dr. J. C. Peltier, in Newaygo, Feb. 8, 1921. After the minutes of the last regular meeting, in September, the Society proceeded to the election of officers for the ensuing year with the following result:

President—P. T. Waters, White Cloud.
Vice-Pres.—Chas. Long, Fremont.
Secretary-Treas.—W. H. Barnum, Fremont.
Medical Defense Com.—N. DeHaas, Fremont.
Delegate to State Society—Willis Geerling, Fremont.
Alternate—C. B. Long, Fremont.

No further business appearing the meeting was then adjourned.

W. H. Barnum, Secretary.

OAKLAND COUNTY.

The annual business meeting of the Oakland County Medical Society was held at the Board of Commerce, Pontiac, Mich., Dec. 2, 1920, following a banquet at the same place.

The following officers were elected for the ensuing year:

President—H. A. Sibley, Pontiac.
Vice-President—F. A. Ulmer, Pontiac.
Secretary—A. V. Murtha, Pontiac.

The election of a Treasurer and the directors was postponed until certain changes in the by-laws providing for a separate office of treasurer could be adopted.

Dr. W. W. Wier, Royal Oak; Dr. Geo. Limenton, Pontiac, and Dr. B. C. Bradshaw, Royal Oak, were elected to membership. This made a gain of eighteen new members for the year, bringing the total to sixty-eight.

A special committee to arrange a schedule of fees with the poor commission and County Board of Auditors reported a satisfactory arrangement and the Society went on record as being opposed to any member accepting a contract to do work for less than the current fees.

The meeting was adjourned until such time as the Board of Directors saw fit to finish the business of the meeting.

This second meeting was held Feb. 1, 1921, at

the Board of Commerce, Pontiac, Mich. At this time the following additional officers were elected:

Treasurer—R. H. Baker, Pontiac.

Directors—D. G. Castill, Pontiac; Frederick Baker, Pontiac; Dr. Raynole, Birmingham.

State Delegate—R. H. Baker.

Alternate—Dr. Ferguson, Pontiac.

Drs. Lameraux, South Lyons and Keller, Royal Oak, were elected to membership.

City Manager Brower of Pontiac met with the Society to discuss a program for City Health, Sanitation and management of the hospital, and the balance of the evening was devoted to this work. The scope of work of the Health Department under Dr. Narfie has been considerably increased and now includes several free clinics under the charge of local physicians. Under the present efficient management and with the evident co-operation of the city manager we hope to have a health department that ranks among the first of the State.

A. O. Muntha, Secretary.

OTTAWA COUNTY.

Enclosed remittance $70.00 on account membership dues to date, as per statement.

Ottawa County Medical Society is in good shape. Our membership list includes every eligible physician in the county, but one, and we are educating some of the remaining nine men who are not eligible, to become so.

Our meetings have been well attended, and the members are showing a more lively interest in the Society, and in things medical than has been the case for years past.

S. Leenhout, Secretary.

TUSCOLA COUNTY.

Regular meeting of Tuscola County Medical Society held at Cass City, Mich., Dec. 31, 1920, at Pleasant Home Hospital. Meeting called to order by Pres. Bishop.

Dr. Barrett of Detroit gave an interesting paper on Thyroids and Their Treatment. Discussed by Dr. Seeley, Dr. McCoy, Dr. Handy and Dr. Johnson.

Moved and supported that we as a Society oppose the Health Insurance and County Health Officer proposed legislation. Carried.

Moved and supported that we adjourn. Carried.

S. B. Young, Secretary P. T.

Tuscola County Medical Society met at 3 p. m. We had with us Team No. 12, consisting of Dr. Randal, Dr. Manwaring, Dr. Treat, Dr. Cliff from Flint. These several physicians covered their different subjects in the line of fractures in a very instructive way and it was the general opinion of physicians present that the time was well spent in this meeting and our secretary was instructed to secure more of these teams if possible.

H. A. Barham, Secretary.

TRI-COUNTY.

At the annual meeting of the Tri-County Medical Society held Feb. 3, 1921, the following officers were elected:

President—Dr. C. E. Miller, Cadillac.
Vice-President—Dr. J. F. Doudna, Lake City.
Sec. Vice-President—Dr. Fairbanks, Luther.
Sec.-Treas.—Dr. W. Joe Smith, Cadillac.
Delegate to State Convention—Dr. Ricker, Cadillac.
Alternate to State Convention—Dr. W. Joe Smith, Cadillac.
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Dr. S. C. Moore, Cadillac.
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Dr. G. D. Miller, Cadillac.
Dr. S. C. Moore, Cadillac.

W. Joe Smith, Sec'y.

WAYNE COUNTY.

On January 24, 1921, Doctor George Crile of Cleveland read a paper before the Surgical Section of the Wayne County Medical Society on "The Role of the Liver in Disease." It was illustrated with a number of stereopticans. Doctor Crile advanced the theory that the human cell is an electric battery and that the driving force of the human body is electricity. Sleep is a recharging of the battery and wakefulness is the discharge of life's ammeter. He developed this theory but he left to future scientists the proving of it. By Proceeding on it, he has greatly reduced the operative mortality. He has accomplished this by the properly supplying the body cells with water and oxidization. This theory was advanced in his explanation of the relation between the brain and the liver. He does not believe that the function of the liver has yet been properly understood. The removal of this organ or the tieing it off in animals results in death within 4 to 12 hours. There is something in the liver that furnishes oxidization for the brain. An electric thermometer, which indicates a variation of 1-1000 of a degree, shows that the temperature of the brain begins to drop as soon as the knot is tied and continues to fall until death occurs. It appears to be the electric energy of the brain which drives the muscle cells of the body. He closed his paper by telling how necessary it is in some cases to prepare the patient properly before operating. This he does by giving the body 2,000 to 6,000 CC of water, by transfusing the patient or by a short course of digitalis as the case may be. Doctors Angus McLan, Dewitt, C. G. Jennings, Ives, Mac Millan, and J. W. Vaughan discussed the paper.

SURGICAL TREATMENT OF EXOPTHALMIC GOITRE—CONCLUSIONS.

1. Hyperthyroidism occurs with both hyperplasia and with adenoma of the thyroid gland.
2. Mild degrees of hyperplasia may improve under rest treatment. Otherwise operation is indicated.
3. Adenomata are always surgical to obviate the potential possibilities of subsequent toxity, malignancy or obstruction.
4. While laboratory methods are of inestimable assistance, clinical judgment based on experience renders the final diagnosis and selects the proper operative procedure.
5. The proof of the value of the surgical treatment of exophthalmic goitre must be estimated in terms of ultimate results.
6. The mortality from surgery is below any other form of treatment and cures are obtained in three-quarters of the more severe types.
7. Present excellent result are due to care in preparation and proper selection of the type of operation suitable for the case.
8. Future improvements will be due to earlier recognition and earlier operation.

(The Grace Hospital Bulletin, January, 1921—H. K. Shawan).

THE PSYCHOLOGICAL EXAMINATION OF CONSCIENTIOUS OBJECTORS.

The data used were taken from the records of about 1000 objectors from some twenty camps. While these represent not quite half of the total number of objectors in the army, the writer feels that they are a fair sampling. In intelligence their average is above that of the white draft of the army as a whole. 46.5 per cent. of objectors grade above C on the army test, while only 27.3 per cent of the army as a whole show a grade above C. 28.6 per cent of objectors are below C, while the army as a whole shows 47.9 per cent below. The ratio of the A and B men of the army as a whole to the A and B men of the objectors is 1:2. About half of 1060 objectors were of the Mennonite faith. The Friends, Brethren, Dunkards, International Bible Students and Israelities of the House of David constitute about 25 per cent. Of 958 cases, 90 per cent object on religious grounds, 5 per cent on social, 3 per cent on political, and 2 per cent on ethical grounds. Examinations were given by a psychologists in an effort to determine: (1) the objectors intelligence and mental soundness; (2) his educational and occupational history; (3) his religious experiences, knowledge of his church, creed, etc.; (4) his moral habits and social outlook. As a result three types stand out clearly. First, the religious-literalist type. This includes most of the Mennonites, Dunkards and many of the obscure denominations. Their objections are based on an appeal to the Bible, church and creed. Second, the religious-idealist type. Contrary to the first group, these are men with too much rather than too little social vision and with an unwillingness to sacrifice their ideals to expediency. This is the type usually found the disciplinary barracks. Third, the Socialist type—educated, intelligent, with a patriotism that recognises no "national" limits. About 75 per cent fall into the first class, while the second and third types constitute about 25 per cent.—Mark A. May. American Journal of Psychology, XXXI-2. April, 1920.

A nation-wide save your sight campaign is to be conducted by the recently organized EYE SIGHT CONSERVATION COUNCIL to acquaint the public with the importance of eye care and to urge the universal eye examinations of school children, workers in industry and clerks in stores and offices.

Special literature will be sent to teachers, employers and those especially interested in the advancement of efficiency and welfare in industry. Charts and posters are to be placed in school rooms and factories visualizing eye care, depicting the advantages of correcting ocular defects, and warning against eye strain and its atteanding evils.

The Eye Sight Conservation Council is a membership organization. The Directors and Councillors are professional men representing various organizations devoted to health, welfare, education, science and industrial betterment.

The following are the officers—

President—L. W. Wallace, New York, N. Y. who is President of the American Society of Industrial Engineers and recently elected an officer in the newly formed Federated American Engineering Societies of which Herbert Hoover is President.

Vice-President—Cassius D. Wescott, M.D., Chicago, Ill. Chairman of Committee on Conservation of Vision of the Council of Health and Public Instruction of the American Medical Association.

The other directors are—

R. C. Augustine, Decatur, Ill. President of the American Optometric Association.

Bailey B. Burritt, New York City, General-Director New York Association for Improving the Condition of the Poor.

R. M. Little, New York City, Director of the Safety Institute of America—member of the Executive Committee of the National Safety Council.

The personnel of the Board of Councillors is to be carefully selected and so far but few have been chosen, these being:

Dr. Thos. D. Wood, Teachers' College, Columbia University. Prominent in educational circles and chairman of the Joint Committee on Health Problems in Education of the National Council of the National Educational Association and the A. M. A.

Dr. Frederick R. Green, Chicago, Ill., Secretary of the Council on Health and Public Instruction of the American Medical Association.

W. S. Rankin, M.D., Raleign, N. C., State Health Officer of North Carolina, Member Executive Committee American Public Health Association.

Arthur L. Day, Ph.D and Sc.D. Director in charge of Geophysical Laboratories Carnegie Institute, Washington, D. C.

BE A BOOSTER! *Take this Application Blank to your friend or neighbor who is not a member. Tell him about your Society and its meetings—tell him about the State Society, its Journal, its Defense League—show him what he is missing. Then get him to sign this application and YOU hand it to your secretary.*

BE A BOOSTER! There are 1000 Physicians in the State who are not members—they should be. You can help secure their affiliation if you will BE A BOOSTER! Do It Now!!

(APPLICATION BLANK)

APPLICATION FOR MEMBERSHIP

IN

The_____County Medical Society

Branch No._____of The Michigan State Medical Society

I hereby apply for membership in the_____ County Medical Society, Branch No._____of The Michigan State Medical Society, and agree to support its Constitution and By-Laws, and the Principles of Ethics of the American Medical Association.

I hereby subscribe for The Journal of The Michigan State Medical Society until forbidden.

(Signed)_____

P. O. Address_____

Where Graduated_____ Date_____

Other Degrees_____

Hospital or College Appointments_____

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Member of other Societies_____

Date of License to practice in Michigan_____

Date of Registration in the County Clerk's Office_____

Recommended by_____

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Members of this Society

N. B.—The annual dues of $_____ to include Medicolegal dues of $_____, and Subscription to The Journal of the Michigan State Medical Society of $_____to January 1st next, must accompany this application.

The Secretary of the Society will please notify the State Secretary immediately of any errors or change in these offices.

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The Journal
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Michigan State Medical Society
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Vol. XX GRAND RAPIDS, MICHIGAN, APRIL, 1921 No. 4

Original Articles

CLINICAL FEATURES AS THE DETERMINING FACTORS IN THE APPLICATION OF RADIUM AND ROENTGEN RAYS IN MALIGNANCY.*

PAUL EISEN, M.D.
DETROIT, MICH.

The physical and biological requirements relative to the application of radium and Roentgen rays in the treatment of malignancy are so numerous that the importance of clinical features is usually overlooked. Nevertheless when the treatment is actually instituted, the one factor which truly determines the amount of rays to be employed is the condition of the patient himself.

We may outline a possible course of treatment; we may consider the kind of rays and figure out a proper amount of such rays to be applied; we may take into account the size and shape of the new growth; its depth from the surface and its proximity to some vital organs and tissues; we may estimate the thickness of the tissues overlying it, and finally we may wish to give a "sarcoma" dose to a sarcoma, and likewise a "carcinoma" dose to a carcinoma, modifying the dose only in accordance to the cell type of the growth.

After all has been said and done, experience still teaches us that all these physical and biological factors are merely probabilities, because, as every radiologist knows, one type of patient will stand the prescribed method of treatment very well, whereas the next type of patient may react in an entirely different manner. Knowing this to be so and believing that there must be some other things in addition to the already mentioned physical and biological requirements that influence the treatment, we will endeavor to describe to you these points.

The most important clinical feature we have to consider is to see that the lesion to be treated is strictly localized. In other words, that the lesion is a primary focus and not the metastatic manifestation of some hidden growth. And further, that metastases do not exist either distant from or proximal to the growth. And in case it is a recurrence, that the latter is local and at the site of the original growth.

As far as our treatment is concerned a tumor does not necessarily have to be a movable one. It may be attached either to overlying or underlying tissues or organs. And in the course of treatment it may become movable. This movability determines its operability. But an inoperable lesion is still amenable to treatment with the rays. On the other hand, as soon as a localized lesion crosses the midline of the body and is detached from the original tumor it becomes a generalized malignancy. Even then treatment should not be withheld, because palliation is still possible, but a cure will not be effected.

The second clinical feature of importance is to determine how rapidly the tumor is growing and what influence the rays have in checking the rate of growth. With the combination of radium and roentgen rays there is no part of the body from a physical standpoint that we cannot reach with sufficient rays of proper quality to check the growth.

Physicists tell us that this can be accomplished by using suitable rays obtained by proper screening. Biologists contend that the checking of the growth depends upon the cell type and the degree of maturity of the cells of the malignancy. Surgeons on the other hand feel that a tumor which has gone beyond a certain size and which is growing very rapidly should not be treated with the rays. We hold that it neither is the proper screening alone, nor the type and stage of maturity of the malignant cells only nor the size which it has attained that controls the progress of the growth; but it is rather the resistence of the patient to the malignancy. Experience shows how a large tumor does disappear under treatment, whereas a smaller one does not; how a rapidly growing adenocarcinoma is checked in one patient, whereas in an-

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other patient a slower growing scirrhus carcinoma is uninfluenced by the rays; how the same quality of rays, physically properly adjusted, will destroy a malignant tumor in one patient and not in another; yes, even in the same patient, how a slowly growing tumor is apparently entirely destroyed and a recurrent tumor grows rapidly and is uninfluenced by the rays, leading to the patients death. Therefore, there must be some element in the patients body that controls the rate of growth, and this element must be reckoned with. Knowing this, it is utterly false to base any conclusion upon the nature of a growth from the rapidity with which it does or does not diminish in size under the action of the rays. A third factor which is of equal importance as that of growth is the origin of a given cancer or sarcoma in its amenability to the rays. Certain cancers of the bladder, tongue and vulva and some periosteal and chondrosarcomata are nearly always uninfluenced by the rays. There are surely other organs and tissues of the body which determnie the radiosensibility of growth originating therefrom, but the above mentioned are those which are most commonly met with.

There apparently is some relation between the potential malignancy of a tumor and the amount of stroma constituting its base. A hard tumor containing few cancer cells and a considerable amount of connective tissue has the least degree of radiosensibility, whereas a soft tumor with more cellular elements and less connective tissue has more often a higher degree of radiosensibility. This is however not always the case there are many exceptions to this rule.

Of greater importance is the age of the patient; generally speaking, the younger the patient is, the lower is the radiosensibility of the growth to the rays. If this is true in cancer where the age limit for influencing the growth is around thirty, it is especially true in sarcoma, where nearly all cases below thirty succumb to the disease. Not only the older a patient is, but also the longer a patient has had a cancer the easier it often is to attack it. We see this daily in epithelioma of the aged. They are cured of their cancers although they have had them for years.

A disastrous feature of malignancy is always cachexia. Very few patients survive in whom it is well marked.

Of the utmost importance in the effectual destruction of malignancy by the rays is the time element. In a certain patient we can apply the amount of rays we consider necessary in a given time, and the patient gets well, whereas in the next patient the same amount in the same time may produce toxemia. We may wish to give a patient a maximum or full dose at one sitting, but this may prove futile, because he may not be able to stand it. On the other hand, if we are obliged to spread this amount out in fracitonal doses over longer periods of time, we may lose control over the cancer. In benign lesions we may use fractional doses; but in malignancy we either have to give a full dose in a given time and repeat the dose at the shortest intervals, sometimes daily, or our efforts will be of no avail. This makes it necessary for us to keep in constant touch with our patient. He should be in a hospital and should not be sent home and instructed to return in a certain stated time until it is safe to do so. It is not uncommon that a patient will stand the following dose better after having had a smaller initial dose, especially in the aged. No two patients are alike. The interval between treatments changes as the case presents itself, and no set rule can be given for any patient. The interval of time between treatments depends upon the patients tolerance of the rays and upon the appearance of the tissues. One tries to give the tumor the limit that the patient will stand in a given time, but this amount varies with each patient.

The importance of surgical procedures in connection with the rays is daily becoming a more and more vital question. Surgery and radium and roentgen ray treatment must go hand in hand. One prepares the field for the other. They are not antagonistic but complimentary. The viewpoint of procedure differs according to each man's experience. Some surgeons value, while others decry pre-operative raying; but most surgeons are agreed upon postoperative radiations. In this sense the preparation of the field to be rayed by the intentional removal of overlying tissues, as recommended by Dr. Emil Beck, has proven in my experience a step forward towards the eradication of cancer. The burying of radium and emanation in the tissues has likewise given the rays a greater chance to destroy cancer. The more cancer tissue the surgeon can remove, the greater is the accessibility of the rays to the tumor and the better have been the results. In superfluous growths, preliminary radiation followed in a few days by surgery has diminished apparently some of the bleeding at operation. It may possibly have devitalized many cancer cells which would have soiled the field of operation. The body, stimulated by the rays forms a barrier of round cells around the edge of the neoplasm which possibly prevents absorption of necrotic tissue. Free drainage is another

useful safeguard against toxemia. And the stopping of the hemorrhage helps to counteract cachexia. As soon as the edema following operation or raying has subsided, radiation can be resumed. The necrotic scum over the wound surface can be lifted off. The wound does not bleed. The discharge is odorless. The circulation and lymph stream have come back to normal, and the area stays clean. The patient not only loses his source of toxemia, but also gains a healthy tissue through the action of the rays. The one complication to be dreaded either following surgery or directly responsible to the radiation is infection. It may have been quiescent. But all rays, be they ultra-violet, radium or X-ray, have the tendency to bring an infection to a head. Accounts of sarcoma disappearing after an infection by erisypelas are quite common in literature, but in cancer infection spreads the disease, causing peritonitis, fistulae and general toxemia. The superficial necrosis seen in the course of radiation is mostly sterile and heals quickly.

Infections are quite commonly attended by pain, but persistent pain in malignancy has nearly always proven an ominous sign to me. Sometimes metastases in the bones have accounted for it. But more often pressure on and direct involvement of nerve trunks by tumor masses are responsible for the pain. If the pain does not disappear under treatment, the prognosis is generally bad. If the pain increases after each treatment, radiation has to be abandoned. Sarcoma is oftener attended by pain than carcinoma, but in all cases of carcinoma that I can recall that had persistent pain, recovery did not take place. If initial pain disappears in the first weeks of treatment, the patients generally get well.

The degree of malignancy cannot be gauged by the amount of bleeding or by the vascular blood supply of a tumor. But the patients chance for recovery is directly dependent upon our efforts to conserve his blood supply. Hemorrhage from any source endangers the life of the patient, and the rays quite commonly control the hemorrhage. The recovery of a patient during treatment where hemorrhage was checked can often be laid directly to this factor.

In the normal individual the toleration of the skin and tissues and organs of the body to the rays varies with the location, thickness, blood supply, temperature and water content. The thyroid and adrenal glands apparently have a controlling influence here. The liver is the one organ that does not tolerate the rays at all, and the small bowels can stand only a certain amount, this varying with the individual. Therefore, when toxic symptoms like vomiting, profuse perspiration or weakness appear, we must give these parts time to recuperate. Even the skin will tolerate only so much of its surface exposed to the rays, and if the surface area is overstepped, collapse can occur. Organs containing large blood supplies, like the goiter, lungs and spleen can easily be overexposed, causing leukopenia, dyspnoea and general toxemia. The blood and urine should be under constant control where heavy dosage is applied, as the coagulability of the blood as well as the cellular elements are influenced by the rays.

The simplest way to judge the effects of the rays would be the microscopic examination of excised tissues. This can easily be done in all cases operated upon. But in many patients this is inadvisable. Therefore, closest inspection, palpation and repeated roentgen-ray examination will tell us if the rays are making progress. We have at present no means of knowing if the improvement we see in a patient is permanent; time alone can answer this question.

The factors so far enumerated determine the severity of the malignancy. Do the rays actually produce something in the body of the patient that protects him and raises his immunity against a recurrence? They undoubtedly do. Any roentgenologist of experience has seen, in generalized glandular involvement, in lymphoscarcomata and Hodgkins disease, glands disappear in one place before being treated at a time that glands in another locality are receiving radiation. Likewise, he has seen large fibroids disappear months after treatment was stopped. He has seen lymph glands subside while treating the original cancer. He has noted the blood changes in leukemia, whether he treated the spleen, glands or bones. This not only speaks for the selective sensitiveness of certain cells to the rays, but suggests the possibility that the rays produce something in the body tissues that raises or lowers the immunity of the body, as the case may be. It is a well established fact that the blood of patients who have acquired a certain degree of immunity against cancer can be successfully transfused into other patients. If this is not successful, the reasons are not far to find, these patients immunity is too low to raise under any conditions. I have in mind a patient whom I treated six years with radium and roentgen rays, and whose pleural effusion was tapped and the serum re-injected. The patient always improved during treatment and finally died of influenza. What produces this immunity I do not know, but the action of the rays has ap-

parently something to do with it. I have often compared it with the immunity that tuberculous patients acquire from the sun rays, whose biological effect is possibly similar to that of the radium and roentgen rays.

Microscopically the mass of round cells seen surrounding the area rayed in malignancy is not only protective in localizing the lesion, but is also productive in forming new connective tissue, and these cells apparently take care of devitalized cancer cells. The resultant scar is in ulcerating cancer the clinical manifestation that the lesion is healed, and if treated with the adhesive plaster method, new skin will cover the ulcer area from the edges, if all the cancer cells are dead. Persistent infiltration is mostly a sign that there is still cancer tissue left; but often infiltration under healthy skin will persist after all cancer cells are destroyed.

One of the most conspicuous results of the healing power of the rays is the marked contraction of the whole wound area during the course of treatment. In tubular organs the narrowing is very evident. Virulent cancer invades all tissues, as you know, but contraction of tissues and epitheliazation occurs only in tissue free from cancer, so that these two signs are the best proof that the cancer has been destroyed. Skin will not grow over cancer cells.

The advantage that the rays have over every other method of treating malignancy is not only the painlessnessof its application, but also the rapid subsidence of pain in the area treated. If relief of pressure or destruction of nerve endings or some other factor is responsible for this is hard to say. But the patient is the one who appreciates this most. Opiates can often be dispensed with after the treatment has begun to be effective.

Every means that we have to increase the activity of the rays should be employed where indicated. Since we have biological proofs why the combination of sedatives is more effective in small doses than the effect of one in large doses, we may assume that there are means of making the tissues more sensitive to the rays. Encytol, selen and the like merit further investigation. Of the value of bismuth in tuberculosis I have become convinced. What help these secondary radiations may have is problematical, but they may be just as effective as the primary and scattered rays.

What factor reduces the acquired immunity of a patient to the cancer cells is not yet known, but it must be of a similar nature as the agent that causes a quiescent tuberculous lesion in the lung to again become active. Some change in the economy of the body probably lowers the immunity against cancer and possibly some mature cell reverts back to the immature cancer type.

The remarks so far apply to strictly localized lesions. The clinical features determining the method of raying generalized malignancy are entirely different and are those one would use in benign tumors. The main object to avoid is increasing the patients toxicity. Therefore small doses, spread over a greater space of time would meet the demand. Much can be done for the patient's comfort, while in localized lesions cures have been attained over many years and can be held out to the patient.

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DISCUSSION.

Arthur Holding, M.D.: I congratulate you on having heard the very lucid presentation of the subject of the essayist of the evening. Dr. Eisen possesses a rare combination of qualities; his work is characterized by diligence in detail, honesty of effort and statement and ability to express himself clearly. He has called our attention to the fact that the physicist, the biologist, and the physician have collaborated in making the X-rays and radium available for the therapeutic treatment of the patient. He has wisely emphasized the importance of not overlooking the patient when trying to cure his disease. We must all agree that a physicist never cures a disease; that a biologist never cures a disease; that a physician never cures a disease. They have all assisted, but Nature cures the disease.

It is to be regretted that the physiological action of radium and X-rays has been discovered since most of us were in medical school, and that after leaving school it is a distinctly painful operation for most people to go back and study fundamental things. Consequently much of the therapeutic value of these newer agents remains more or less of a matter of mystery to the medical profession. We readily understand how necessary it was in our student days to learn the physiological action of drugs such as digitalis, nitroglycerin, strychinine and the like before we were competent to express an opinion or decide when and how to apply them in disease. This fundamental knowledge of the physiological action of radium and the X-rays must be understood before we are in a position to understand what diseased conditions will be helped and what conditions will not be helped by them.

We must know, for instance, first, that the ray's most pronounced action is on the nuclei of cells, preventing or inhibiting their division or karyokinesis; second, that their next most important action is on the endothelial cells lining capillaries and blood vessels; and third, that their next important action is on glandular cells especially epithelium. This means in general, if a micro-

scopical section of a tumor takes the nuclear stain (haematoxylin) deeply and therefore if it looks blue, we will get more effect from the rays than if it takes the cell substance stain (eosin) deeply and looks pink. Likewise if the tumor predominates in endothelial cells, as in capillary blood vessels; if the tissue approaches embryonal tissue in type; if the nuclei are dividing rapidly or if the tumor is made up of epithelial cells in which the nucleus is larger than the cells substance; we can expect good results.

An understanding of these points will lead us away from an empirical, mysterious, suspicious or doubting attitude of mind toward the use of radium and X-rays and give us a scientific understanding as to the when, where and why to employ them, and furthermore to understand why in certain cases we do not get good results as well as why in certain other cases we do get good results.

PHYSIOLOGICAL ACTION OF AND THERAPEUTIC INDICATIONS FOR THE X-RAYS.

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It is twenty-five years since the epoch making discovery of the X-Rays. The first use of the X-rays in medicine was diagnostic and on account of the limitations of the gas tube they were used during the first decade or so for diagnostic rather than therapeutic purposes, though we have record of their use in treatment shortly after their discovery. It was not until the invention (1914) of the so-called "hot cathode" tube by Dr. W. D. Coolidge that therapy on any substantial scale was attempted The Coolidge tube which is at the present day almost universally used, may be regulated to a nicety by the X-ray operator so as to deliver a uniform effect over almost any desired period of time. During the past six years, which marks the existence of the Coolidge tube, X-ray therapy has become very important so as to constitute a large percentage of the work of the X-ray specialist. It is, in fact, a specialty in itself.

In the therapeutic use of a drug, the physician acquaints himself with its physiological action, that is, with the effect it has on the bodily organism when administered in medicinal dosage. It would be injudicious for a physician to prescribe a drug or other curative agent were he not conversant with its effect upon the animal organism. He should seek the same information about both radium and the X-rays. In fact two questions arise. What effect have these agents on body tissues? Second when is their use indicated?

The X-rays were so designated owing to the fact that the early workers did not know their nature, hence they were the unknown, or as we say in the language of Algebra, "X" rays. During the past decade, however, thanks to the efforts of such workers in physical science as Mosley, Darwin and Bragg, English physicists, we have learned that the X-rays have a certain resemblance to light as we know it: that is, they are reflected under certain conditions. In 1912 these workers found that X-rays consisted of ethereal waves and appeared to be regularly reflected much the same manner as light from any reflecting media. Experiments were made upon the cleavage planes of ordinary natural crystals when a certain fraction of the beam of homogeneous rays was found to be reflected and the remainder to penetrate to the next layer to be reflected as the first reflected beam.

The X-rays given off from the anode or target of the X-ray tube are found to vary in their character so that they are arbitrarily classed as soft, medium and hard rays. The soft rays are those which from prolonged exposure produce a deleterious effect upon the skin known as an "X-ray burn," sometimes producing a pathological condition akin to rodent ulcer. These rays when properly timed and regulated and filtered have been used extensively, however, in the treatment of certain chronic diseases. The use of the X-rays in the treatment of certain chronic diseases of the skin is wide in its application and so thoroughly accepted that there are very few dermatologists, who are not equipped with X-ray apparatus of sufficient power to treat superficial skin conditions.

X-RAYS AND IONIZATION.

The physical action of the X-rays depends upon their power to ionize. What do we mean by ionization? The theory of electrolytic dissociation announced by Arrhenius (1887) was in effect that substances whose solutions conduct the electric current become dissociated when dissolved in water. The parts into which a molecule of the dissolved substance is dissociated are electrically charged particles called ions. H Cl molecules for instance, are split up into H ions positive and Cl ions negative. The phenomenon of ionization takes place to a slight extent when the X-rays pass through air but to a much greater extent when permeating the tissues of the body.

In studying the biological reaction of X-rays upon the tissues it has been found that when

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massive doses are administered, embryonic tissue is more sensitive than other tissues of the body. This is very well stated in the law enunciated by Bergonie and Tribandeau. "Immature cells and cells in an active state of division are more sensitive to the X-rays than are cells, which have already acquired their fixed adult morphological characters." Paine of London, who has perhaps made more exhaustive study of Cancer than any other person, has traced the changes from chronic inflammation, particularly with reference to carcinoma of the breast, to malignant degeneration, stating his belief that through degeneration of "the nobler parts of the cell" resulting in impaired function, food brought to the cell is no longer used in a normal manner. With the specialized function of the cell gone it has, he says, "nothing to do but grow." We have here, it seems to me, a semblance at least to the cells of intra-uterine life, which grow and multiply in geometric progression, drawing their nourishment from the maternal blood. Malignant cells resemble the cells of the embryonic state. The effect of the X-rays upon malignancy is practically the same as their effect upon embryonic cells. It has been found that both the X-rays and radium have the following action on living cells (1) stimulation: (2) inhibition; (3) destruction.

When the X-rays are stopped or impeded by some substance of greater weight than aluminum (atomic weight 27) other rays known as secondary rays are given off, that is, there is a certain amount of scattering of the primary beam. This phenomenon is employed particularly in deep therapy. In regard to the further action of X-rays upon tissues, Knox goes on to say that in addition to the direct evidences of the local action of radiation upon a new growth and its environment there is reason to believe that the general effect produced upon the whole body is favorable. This is indicated by the fact that patients getting treatment by the X-rays or radium occasionally improve markedly in general health. They gain in weight and improve in color.

MASSIVE DOSE TREATMENT.

In carrying out what is known among X-ray workers as treatment by "mass" does, high voltages about one hundred kilovolts or one hundred thousand volts are necessary if the desire is to carry the treatment beyond the point of stimulation; therefore, massive dose treatments should not be undertaken with a transformer that is not capable of, at least, what is known as a nine inch spark-gap. In treating pathologic tissue below the skin the massive dose is necessary. The small X-ray machines when used for treatment should be limited entirely to superficial lesions or deep lesions where stimulation is desired such as in tuberculous glands.

In Germany, according to recent visitors from the United States, apparatus has been constructed capable of delivering voltages as high as two hundred thousand and X-ray tubes capable of taking such high voltages. With these machines it is possible to produce very hard and penetrating rays. According to the method of treatment as carried out in the clinics in Berlin the patient is on the treatment table six hours at a time. So much damage is done the blood cells that a blood transfusion is administered and the patient put to bed for a number of days. It has been found necessary to quiet the patient during the prolonged seance by means of an opiate. This method of treatment has not been employed in this country where the maximum output of the transformer is not more than one hundred kilovolts to which current the tubes are limited.

We spoke of three varieties of rays, classified according to their penetrating power. In the treatment of deep seated lesions the so-called hard rays and the more penetrative medium rays are employed. The skin is protected by filters of aluminum and sole leather. The action of the hard rays when produced by high voltage depends upon their greater penetrative power and probably also upon the phenomenon of scattered radiation when these filtered rays "fired" into the lesion. The term "scattered" very adequately describes the phenomenon that takes place in the vicinity of the neoplasm or lymphatic glands as the case may be.

The X-rays produce an edema of the endothelial lining of the blood vessels followed by an occluding endarteritis, thereby diminishing the nutrition to the neoplastic growth. The second action of the X-rays is the destruction of the cells themselves leading to their replacement by fibrous connective tissue.

USE OF RADIUM AND X-RAYS.

The effects of both radium and X-rays upon the tissues are practically identical. The X-rays have a much wider range of activity than radium but are not so easy for internal application. A very proper question for the physician or surgeon is in what cases shall we employ radium and when the X-rays? Generally speaking radium is probably more effective in treating cavities, owing to the fact that it can be brought into direct contact with the diseased tissue: Radium needles are frequently inserted

into the tissues while the X-rays must pass through more or less healthy tissue before they reach the lesion. Radium is used in treatments of pathological conditions of the mouth, throat, rectum, vagina and other cavities. In some cases it is of greater advantage to use radium with the X-rays cross fired from without.

INDICATIONS FOR X-RAY TREATMENT.

Now as to the indications for this mode of treatment, the largest field for X-ray therapy is the treatment of malignancy. Before the introduction of the X-rays and radium to the therapeutic armamentarium, surgical treatment was often at best palliative. Cases were usually referred to the surgeon late in the course of the disease often after metastasis had taken place. The surgeon at first removed the cancer mass and later in the history of the operation attempted a more radical operation, namely the removal of the lymphatic glands adjacent or remote. He never can, however, be sure that he has removed all malignant cells no matter how radical his operation may have been.

The employment of X-ray therapy was strongly favored by the surgical congress of 1919 as a means of reaching any cells, which might have been left in the tissues. By the employment of X-ray post-operative treatment at intervals, which vary according to the choice of the X-ray worker from twenty-one days to thirty days, it is possible to exert an influence on scattered malignant cells or to inhibit or entirely destroy those, which may not have been reached at the time of operation. Probably no better insurance may be secured against possible recurrence than periodic post operative radiations. The importance of this after-treatment cannot be too strongly impressed upon the patient. The writer wishes it distinctly understood that he is not advocating X-rays as a substitute for surgery in the treatment of deep seated malignancy, except only in such cases as are inoperable. This method is recommended only for surgical after-treatment.

PRE-OPERATIVE TREATMENT IMPORTANT.

In European countries notably England and to a considerable extent in the United States a pre-operative X-ray treatment is administered to the operative field. The surgeon runs less risk of transplanting cancer cells during the process of removal of the growth in as much as it has been demonstrated experimentally that X-ray treated cancer cells do not grow on transplantation.

The X-rays have been used with favorable results in the treatment of uterine fibroids, particularly the subserous and the intramural type. Radiotherapy may be administered in these cases with practically no inconvenience to the patient, The rays have been likewise found useful in the treatment of uterine hemorrhages especially at the time of the menopause. The climacteric period is thus passed without the usual disturbances that mark the menopause. The rays act upon the capillaries and endometrium, though there possibly is some action upon the ovaries.

LEUKEMIAS AND THE X-RAYS.

Among the indications for X-ray therapy might be mentioned the leukemias particularly the splenomyelogenous type. Though the cause of the disease is not definitely known, it is thought to be a malignant condition of the blood forming organs such as the spleen, lymph glands and bone marrow. The most prominent manifestation is enlargement of the spleen accompanied by a great increase in the number of white blood cells. As many as half a million per cmm have been commonly noted. There are incidents on record (Osler) in which the white blood cells exceed the red. In 1912 edition of his work on Medicine, Osler states that in treatment the X-rays should be tried. X-ray treatment has made wonderful progress, since that time. If the use of this form of treatment were justified eight years ago, today with improved apparatus and technic it is even more to be commended. The physiological action of radiations on the blood is very marked and is shown in a diminution of the total number of white cells. The enlarged spleen is lined off in squares four inches to the side and one square is rayed each day until the total area is covered. The long bones are then treated in rotation. This constitutes a series. Blood counts should be made every two weeks and when the total number of white cells has been reduced to say twenty thousand per cmm which commonly occurs after three series, the treatments may be discontinued. Blood counts should be made at intervals of a month or not more than two months for the remainder of the patient's life, and X-ray therapy should be repeated when a tendency to relapse manifests itself. It is of the utmost importance to impress this upon the patient because it is very hard to bring the blood back to normal after a complete relapse.

The X-rays have been used with success in the acceleration of the coagulation time of the blood. Tischy of the Marbourg clinic has reported instances in which coagulation time of the blood has been materially shortened by radiations applied to the spleen. This physical

phenomenon occurred from three or four hours after radiation by the Roentgen rays and continued for from two to three days. More pronounced effects have been reported in hastening the coagulation time by radiating the liver as well as the spleen.

Sarcoma has been found to respond to X-ray treatment somewhat more readily than carcinoma. Carcinomatous glands that do not respond to radiation may be removed.

TUBERCULOUS ADENITIS.

Tuberculous adenitis offers a favorable field for this form of treatment. The X-rays can cure tuberculous glands just as well as surgery can remove them, and with much less danger says Carter after a study of one hundred cases treated by the X-rays. The exception is the broken down suppurating gland. Tuberculous glands differ from neoplastic growths in as much as they require stimulation: a hyperemia instead of a destructive dose. The action of the rays in tissues is not bacteriocidal. This has been proved by experiment.

It goes without saying that a careful diagnosis should be made preferably by the tuberculin test to be assured that we are dealing with a purely tuberculous adenitis. Furthermore, all probable infectious foci such as tonsils or teeth should receive attention and a chest plate should be taken.

THE X-RAYS VS. THE TONSIL SNARE.

Murphy, Witherbee et al of the Rockefeller Institute report the successful employment of the X-rays in inducing atrophy of hypertrophied tonsils (Journal A. M. A. Jan. 22, 1911), the principle involves the selective action of the X-rays on lymphoid tissue without material damage to other structures. The shrinkage of the tonsil is followed by drainage of the tonsilar crypts and a clearing up of focal infection. The writers report the use of the rays on forty-six patients ranging from three and a half to forty-five years of age all showing more or less hypertrophy and disease of the tonsils and surrounding tissues. Marked improvement is reported to have followed in all but four cases. Only one patient received more than one treatment.

The X-rays are particularly indicated in cases of uncomplicated hyperthyroidism, that is, pure Grave's disease. Radiations over the thymus also have been advocated. The contra-indications in the treatment of the thyroid are colloid and cystic goiters and those of infectious origin, until we have located and removed the source of infection.

TO RENDER THYROID CASES OPERABLE.

It is conceded that a high basal metabolism reading is a contra indication for surgery of the thyroid. Means and Aub (Archives of Internal Medicine, November, 1919) consider a basal metabolic rate much above forty as rendering a thyroid patient a dangerous operative risk. Cases in which surgery is indicated in which the basal metabolism is high may be made reasonably safe risks by pre-operative radiations over the thyroid and thymus, checking up the results of the X-ray treatments by frequent calorimetric readings.

The so-called fractional dose treatment is limited to the treatment of benign conditions. The malignant cases should have the maximum dose.

The writer has not attempted much more than a statement of the physiological action of the X-rays so far as known and indications for X-ray treatment and has somewhat dogmatically presented conclusions rather than discussions at length, of the various phases of the subject. A great deal of our knowledge on the subject is empirical: but this is likewise true in many other matters connected with medicine and surgery.

SUMMARY.

1. The X-rays may be used with stimulating, inhibiting or destructive effect at the will of the X-ray therapist.

2. Their physiological action depends upon their ionizing properties.

3. Malignant cells resemble embryonic cells so far as being effected by the X-rays and radium is concerned. The destructive effect of these agents depends largely upon the power to produce an obliterative endarteritis.

4. The X-rays have a large field of usefulness in pre-operative and post-operative treatment of malignancy.

5. Among the pathological conditions, which respond favorably to X-ray therapy may be mentioned: Uterine fibroids especially the subserous and submucous type, uterine hemorrhages, leukemias, hyperthyroidism, tuberculous edenitis, epitheliomias and various dermatoses.

6. X-ray dosage has been recommended as pre-operative measure in increasing the coagulability of the blood and in reducing the metabolic rate in thyroid cases thereby rendering them good operative risks.

7. The X-rays have been employed with success in reducing hypertrophied tonsils.

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501-2 Fine Arts Bldg.

CONGENITAL SYPHILIS.

Cyril K. Valade, M.D.

DETROIT, MICH.

In the department of syphilis it is always difficult to present at a meeting of this kind, cases of acquired lues with clinical symptoms. Consequently, I am paying especial attention to congenital syphilis, because the marks left in ante-natal syphilis, with the exception of skin, phareal and laryngeal manifestations never change.

The etiology of congenital lues, as in the acquired form, is due to the spirochaeta pallida of Schaudinn, but the mode of infection is somewhat different. We know for certain that a syphilitic child must necessarily be born of a mother suffering from either an active or latent syphilis. This explains Colle's law, which is "a syphilitic child cannot infect its own mother while nursing but can infect a strange wet-nurse." We know that a mother suffering from acute lues will abort her child or that it will be born dead and if she has a latent syphilis the child will probably be born alive to develop symptoms sooner or later. So we have concluded that the length of time from birth before the offspring develops clinical symptoms of lues is in ratio to the length of time between the mother's active phase of lues and the length of time when she becomes pregnant.

In Dr. Jamieson's series of 400 cases, in 1918, of all types of syphilis, he found that 13 per cent. were congenital. However, it was found at the Central Hospital, Litchfield, England, in a series of 1074 cases, only two had congenital lues. This is hardly a fair estimate because these cases were from the Army and had passed rigid physical examinations. The congenital luetic cases I saw in the British Army usually had eye conditions brought on by non-specific infection, injury or by gas irritation.

The symptoms of congenital lues are similar to those of the acquired form. I will briefly state them in the order in which they occur. It is rare that a child is born with a rash, but when it does happen it is of a bullous type (syphilitic pemphigus.) These eruptions always occur on the palms of the hands and the soles of the feet. The lesions are vesicular or bullous and either dry, leaving a brownish-red papule, or burst, causing crusting. Pemphigus neonatorun, the other condition with which the above is frequently confused, appears in healthy children, while syphilitic children with active lesions are always poorly nourished. The next lesions to appear, usually some weeks after birth, are nasal affections, known as snuffles, then fissures of the normal clefts of the lips; next lesions on the buccal mucous membrane; next, laryngeal inflammation manifested by hoarseness of the cry. Soon after this skin lesions appear which are flat, disc-like papules of a more or less copper-brown color, occurring most frequently about the genitals, palms of the hands and soles of the feet. The visceral lesions

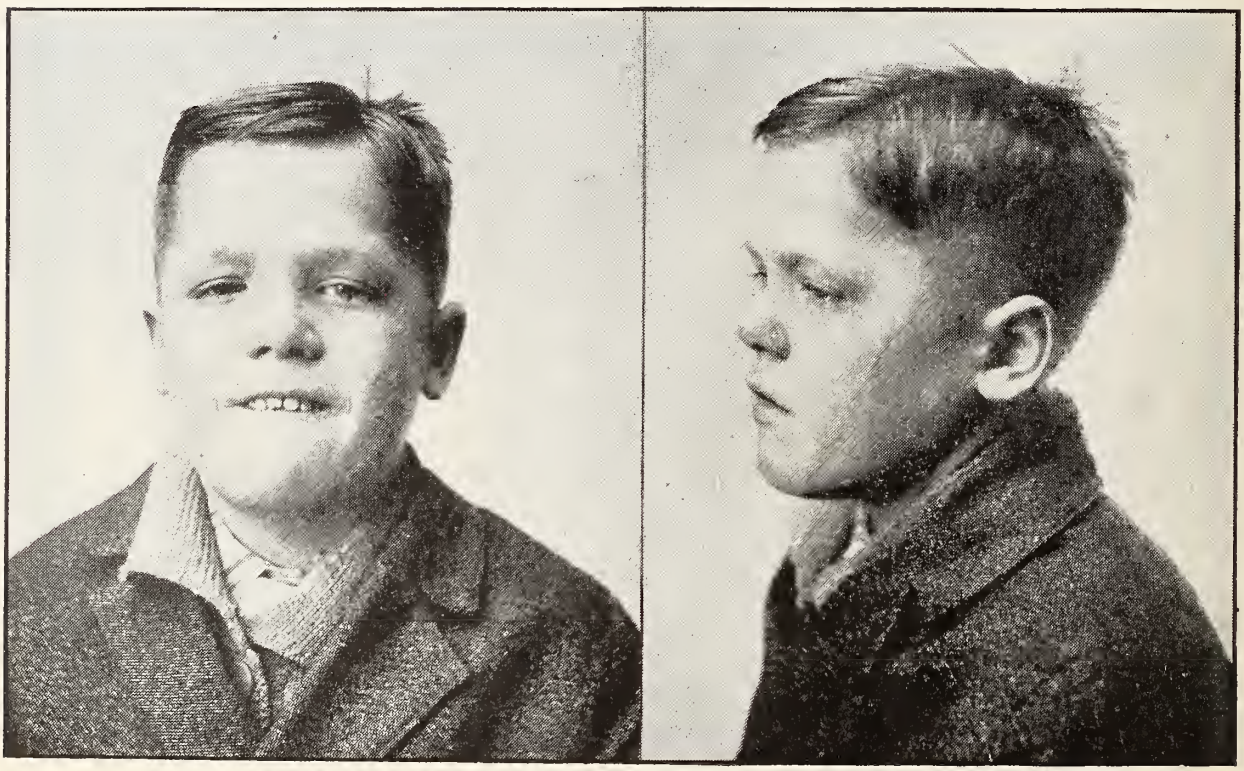
are, nodular swellings of the long bones, enlargement of the liver and swelling of the testicle. Swelling of the testicle and iritis are rare at this time. The child may be healthy looking until the lesions appear, or it may have the wasted "old man" appearance from birth. The danger periods of a child with the syphilitic taint are the first year, the age from 7 to 11 and at puberty. Interstitial keratitis usually appears at puberty with a history of conjunctivitis or corneal ulcers at some earlier age. The Hutchinson teeth show with the permanent teeth and the other symptom of the Hutchinson triad, deafness, occurs, when manifested, at any one of the critical periods described above. In obscure cases of questionable diagnosis the Wassermann test of the blood serum will help one to come to a decision. In differentiating skin conditions at this period assistance can be had from dark-field examinations of the serum from open lesions. The spirochaeta pallida can be demonstrated in this way.

The treatment is oftentimes very difficult, especially when a very young infant is concerned. The first thing we do in very young infants is to begin with innunctions of mercurial ointment, and just as soon as the baby's health warrants, the administration of one of the various synthetic arsenical preparations, beginning with minute doses and increasing with the age of the child.

Dr. Van Rhee at the Children's Free Hospital, Detroit, has the following course of treatment—he uses the neosalvarsan groups, beginning with 0.15 gm. and increasing to 0.45 gm. as the age permits. He gives the injections intravenously weekly for 6 to 8 weeks, guided by signs of tolerance or intolerance of the drug. During and after this he advocates innunctions of mercurial ointment six days out of each week for four weeks. Then a rest six or eight weeks is followed by a blood test; if this is positive, he repeats the course as described above.

I think that the character of the course of treatment depends largely upon the stage in which such congenital lesions are recognized. The earlier the treatment is started the better the results. Our treatment at Harper Hospital Out Patient Department for children is innunctions at first, with doses of the neosalvarsan or salvarsan group as soon as practicable. Dr. Jamieson has several cases of congenital lues where the Wassermann test was negative after two years treatment with mercury. However, it is questionable whether these are permanent cures or not. It is too early to tell.

Dr. Adams of the Thavies Inn Venereal Centre for Pregnant Women at London, England, has recently reported wonderful results in the offspring of a syphilitic mother by antenatal administration of salvarsan and mercury.



Case 1.

His report of 30 cases, babies born from syphilitic mothers, is as follows:

5 babies were born with a negative Wassermann.
10 became negative after treatment.
3 mothers had no treatment before death of baby in utero.
1 baby died from syphilis.
1 died suddenly without any apparent cause.
1 was born dead.
9 babies remained positive under treatment and are doing well.

He says that with the exception of 2 out of 30 all mothers had acute secondary syphilis, realizing also that a year's observation is not

Case 2.

enough time for positive statements as to the ultimate results; but surely he has been repaid for his trouble.

I remember a case of one of my patients in England. He was an officer with syphilis, who had innocently infected his wife during the second month of her pregnancy. As soon as she was aware of what she had she started an intensive course of arsenical treatment and by the seventh month she had a negative blood. The baby was born at the allotted time and was perfectly healthy and has had repeated negative Wassermanns. I am sure we recognize what wonderful results are possible when one is fully aware of his patient's condition during pregnancy.

The following cases will demonstrate the different clinical manifestations spoken of above:

The first case B. B. 12767 O. P. D., H.H., age 10 years. History—born at end of normal term from mother who had a positive Wassermann. Clinical symptoms developed in patient at age of five weeks. This was a papular eruption and scarring can be noticed on face of patient. Father is infected (Wass xxxx) A curious and interesting thing about the family is that the grandmother on the mother's side has a positive Wassermann. We investigated the case thoroughly trying to prove a congenital infection of three generations, but such is not the case. The grandmother was infected 5 years before the birth of the patient's mother. Patient's mother never had symptoms. Patient has one brother living and well.

The clinical signs now are:

1. Bossing of the frontals.
2. Eyes farther apart than normal—interstitial keratitis brought him to the hospital.
3. Nose depressed and flat. (Saddle nose).
4. Ears lower than normal.
5. Rhagades at corners of mouth, also scarring on face from skin eruptions.
6. Hutchinson teeth.
7. Stocky appearance—facial aspect that of a youth 20 years of age.
8. His hands are square and short on the fingers.

He was treated with inunctions of mercurial ointment and received several courses of salvarsan. Since treatment was started his appearance is brighter and he is getting along well in school.

I am tabulating the different blood tests to show that his prospect for ultimate recovery is good because of the fluctuation of the Wassermann. It is where the blood test remains stationary that the prognosis is bad for a complete negative result.

4/17/19 Wass. slight inhibition of haemolysis.
10/7/19 Wass. slight inhibition of haemolysis.
12/29/19 Wass. xxx.
4/10/20 Wass. xxxx.
8/10/20 Wass. negative.
12/31/20 Wass. slight inhibition of haemolysis.

M. K. 6365, O. P. D., H. H.

The second case (through some unfortunate cause the picture of this patient was lost and the patient cannot be located at present to take another one. It is too bad because the remarkable appearance of the head now as compared to what it was when she first came to Harper Hospital cannot be appreciated by a photograph alone.) (The author).

She came in at the age of one month with a hydrocephalus measuring 21 inches. Dr. H. M. Rich began at once to drain off the excess fluid from the ventricles and spinal canal.

The measurements of the head at different periods are as follows:

Admitted 4/21/15, circumference 21 inches.
Admitted 1/21/16, circumference 19 inches.
Admitted 1/29/16, circumference 16 inches.

Between January 21, 1916 and January 29, 1916 she was in the hospital and over three ounces of fluid was drawn off. A positive Wassermann of the spinal fluid was found. On February 1, 1916,

she was given a spinal treatment of salvarsanized serum after the Swift-Ellis method. Since then she has been receiving inunctions and injections of salvarsan, but she is rather a hopeless case. The wonder is, however, that she lived at all. She seems bright enough, notices things and recognizes people, but her speech is not intelligible.

Case 3. I do not know the name of this patient, but I am presenting the photograph because it shows two clinical conditions very well.

1. The upper teeth are as typically Hutchinson as any I have ever seen. Draw a square using the base of the teeth as the first line and the curved, pointed peg-like tooth will be seen. Now, compare it with the tooth of a normal person and you can notice the broad, businesslike edge of the proximal end of the normal tooth.

2. The deformed supernumerary teeth of the lower jaw are another sign of malformation early in foetal life. The child looks to be 14 years old, but I dare say she is not over 10 years of age.

1536-8 David Whitney Bldg.

ESSENTIAL HYPERTENSION.*

F. M. Barker, A.M., M.D.
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In submitting the following case, it has been with the idea of the comparative frequency with which errors of diagnosis arise in our medical work; and, of the supreme necessity in repeated examinations of the patient for the deduction of our conclusions.

Case No. ———K. L., female; aged 62, weight 140 lbs.

Family History: First husband living and well so far as known. Second husband died of pneumonia. She has had two children and one miscarriage; 1st daughter living and well; 2nd daughter died of blood poisoning.

Personal History: She has always been quite strong and well. Has had usual exanthemata and bronchial colds each winter.

Surgical Measures: The left leg was removed below the knee 30 years ago for "bone disease." Her menstrual history has always been normal, with menopause 20 years ago. Denies all venereal disease history.

Occupation: Cook. Comes with present complaint of "trouble in jointswhich began 20 years ago, in right knee, 4 years ago in left knee, in shoulders a year ago, and in wrists at present time." "Just a pain" she states. She has slight oedema of the feet at night; she becomes somewhat dizzy on stooping; has some dyspnoea on exertion, and slight failure of memory. She is "bilious," takes cathartics regularly, and has a poor appetite.

Physical Examination: Shows a well nourished woman, with some pallor to the skin and slightly anaemic mucus membranes. There is no engorgement of the superficial veins apparent. Pupils equal in size, reacting to light and accomodations; conjunctivae not injected. Nasal orifices patent; tongue clean. Teeth: all molars missing below, plate above. Tonsils buried.

Chest is well formed with a slight depression in right sub-clavicular area. Expansion is equal, and a slight emphysematous condition is present in both lungs. A pulsation is visible above the manubrium, extending over to the right. This pulsation is synchronous with the radial pulses, which are of equal volume, time, and tensity. There is an area of abnormal dullness in the mid-sternal section over the manubrium, extending to the 2nd costal border. On palpation above and pressing backwards at mid-sternal notch an expansile pulsation is obtained with lifting impact. The heart's left border is apparently about 4 cm to the left of the left nipple in the axillary line, the apex beat being at 6th interspace. The right border is 1½ cm. to right of sternum. There is a slight accentuation of A 2, and a systolic thrill at apex transmitted upwards; otherwise, no adventitious sounds.

Blood Examination: Blood nitrogen, noncoag; nitrogen, 30 mg. per 100 cc. blood.

Urine Examination: Strongly acid, albumen and sugar neg. Otherwise neg. Wasserman neg.

Stereoscopic plates were made of the chest—as here shown. Some movement due to breathing of the patient during exposure. There is definite calcification of the lymphoid tissue at the hilus of the left lung, indicating an old infection. Marked evidence of a peri-bronchial infection on both the right and left sides. There is some thickening accompanying the bronchial tree on the right side; especially in the middle and upper lobes. We find no definite evidence of a perenchymal lesion. The contour of the heart is somewhat enlarged. Fluoroscopic examinations revealed no pulsating tumor of an aneurismal type.

The blood pressure was taken on three different occasions, the readings being:

	Systolic	Diastolic	Pulse
1. Patient sitting up	220	140	90
2. Patient recumbent	190	140	72
3. Patient recumbent	194	140	76

Repeated efforts have been made to get the patient to return for further readings with relative rest periods; and, for an outline X-ray plate of the pulsating tumor; but, without success.

With the exception of the symptoms, as given, of the apparent expansile tumor in direct communication with the lumen of the thoracic aorta —none of the classical symptoms of an aneurysm are present; e. g.—no tracheal tugging; no pain in the chest wall or thoracic cavity; no anginal attacks; no cough; no hemorrhages; no erosions of the sternum.

These patients usually consult a physician for other ailments than the true one, and the real illness is often accidentally diagnosed while the examination is being conducted.

Today when one speaks or writes of Hypertension, the first thought or conclusion immediately drawn by the majority of our profession is—abnormally high tension, the resultant of nephritis. In fact it is regrettable that

*Report of case from the Medical Clinic, Out Patient Department, Harper Hospital.

with many hypertension is almost synonymous with nephritic changes.

The term, Essential Hypertension, is employed to characterize those cases in which the *earliest* and dominant or essential feature is the greatly increased blood pressure. Sir Clifford refers to the changes as hyper piesis.

The case presented does not reveal any obtainable symptoms or evidence of nephritic alteration in either blood or urine examination. If there be any arterio-scherotic changes, they are of the slightest and scarcely detectable.

There is no history of any of those nervous irritations, parasthesias, headaches, gastric or cardiac disturbances so often associated with the menopause period and her condition could not be placed under the classification of a climateric hypertension.

The initial manometric reading was much greater than subsequent ones. This is not uncommon or unique. The later readings more clearly approach the "residual pressure"—or the stage at which the readings remain practically constant. More extensive records verify this fact. The great majority of these cases are found in women; in fact, Hopkins considers it occurs almost exclusively as a disease of women.

The diastolic pressure is more constant than the systolic, and is considered more the indicator of the peripheral resistance and the elastic condition of the arterial wall structures.

A word as to taking blood pressure may not be amiss. To be as accurate as it is possible, it should be taken when the patient is in as perfect rest, both mentally and physically, as can be arranged. Circulating stimuli, of such origins as physical or mental exertion or effort; undue excitement, as when influenced by such emotions as great grief, fear or anger; even the variety of the diet—all tend to influence the blood pressure; and, unless carefully considered, render inaccurate the readings.

The same instrument should be employed on all occasions, the hour taken, the dress, the posture of the patient, and other associated details should be carefully attended to. Great pains and precision should thus be employed to have conditions which effect the subject as nearly identical as possible with former readings, when comparative tables are being made.

While, as stated, correct comparisons can only be made by taking the blood pressure under circumstances as nearly identical as feasible—yet—

It is prudent to also take pressure readings under varying conditions to obtain, if there be any, the marked variations if of a functional nature, if not organic in type. The height of the pressure depends upon several elements, all of which may vary—for example, the rapidity of cardiac beat, the elastic tension of the walls of the artery, the resistance of the periphery, the amount of blood being forced into the aorta, etc.

Hypertension is associated by all authorities, in its etiological consideration, with the specific infections and various organic lesions and their immediate results; also with certain intercurrent and endocrinal disease disturbances—syphilis, renal sclerosis, gout, cardiac hypertrophy, arterio sclerosis, cerebral growths, metallic poisons—as plumbism—auto intoxication, from the action of the metabolic decomposition gradually resulting in degenerative arterial processes; muscular exercise, and conditions affecting the proper action of the vasomotor system. These and others are among the causative factors of the ordinary type of high blood pressure, but the positive etiology of essential hypertension is not as yet known.

Probably a proper study of the basic metabolism changes, if of an abnormal character, and the study of the resultant changes of an endocrinal nature, will aid in throwing light upon the primary causes of arterio scleroses and hypertension alterations. Certain causes are undoubtedly primarily within the blood vessels themselves. Organic changes then following, secondarily as a rule, when the disturbance is markedly prolonged.

In a correct appreciation of the true interpretations today of hypertensive blood pressure, we are beginning to realize the incorrectness of many previously entertained theories. The fact that there may be varied conditions or disturbances, producing a rise in the blood pressure, either functional or organic, should be borne in mind always.

Not until quite recently have we come to a realization that a patient having hypertension does not necessarily need to be one with an abnormal kidney function. This fact has recently been strongly emphasized by Boas.

Cases of essential hypertension may continue for years without the subject being materially affected, but the ultimate outcome—delayed though it may be—is death, from either cerebral hemorrhages or other arterial accidents; or, a general myocordial insufficiency.

The case we presented to you we consider to be a typical type of essential hypertension, with a normally functioning renal tract, and no specific or other causative disease history.

REPORT OF TWO CASES OF ENDEMIC TYPHUS—BRILL'S DISEASE.

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With the increasing immigration to the United States of peoples from all parts of Europe and their consequent travels in this country, it is well for the clinician to have in mind the possibility of the occurrence of diseases which may be endemic abroad, but are rather unusual in this country. Within the past year we have seen two cases of the mild form of typhus fever or Brill's Disease in Detroit. Owing to the large foreign element in New York City, this disease is not uncommon there, cases being found constantly in many of the larger hospitals.

To Dr. N. E. Brill belongs the credit of having first described this condition as a distinct clinical entity and in recognition of his work, the disease was first called Brills's Disease. (1) Brill in his earlier writing called the condition "An Acute Infectious Disease of Unknown Origin." Within recent years Brill's Disease has been considered as a mild form of typhus fever and is generally so admitted by all, including Dr. Brill himself.

Plotz (2,3,4,5) and his co-workers, Olitsky and Baehr in 1914 have apparently proven that Brill's Disease and typhus fever are identical and have described an organism which they have found in both diseases. It is not our purpose to enter into a discussion as to the etiology of typhus fever or its milder type—Brill's Disease—and the reader is referred to the articles by Plotz and his co-workers also to a recent article by Schultz. (6)

Mild or endemic typhus (Brill's Disease "is an acute infectious disease, characterized by a short incubation period (four or five days), a period of continuous fever, accompanied by intense headache, apathy, and prostration, a profuse and extensive maculo-pupular eruption, all of about two weeks duration, whereupon the fever abruptly ceases either by crisis within a few hours or by rapid lysis within three days, when all symptoms disappear." (7).

For a comprehensive study of the symptomatology and physical signs of this disease, the reader is referred to the classical descriptions written by Dr. Brill. The writer had the opportunity of serving as House Physician under Dr. Brill and the following brief summary of the disease was obtained from a study of Dr. Brill's articles and from personal observation and instruction while on his service.

The early history is that of malaise, anorexia and slight headache which persist for three or four days. This is followed by a chill or chilly sensations with a rapid rise in temperature. The headache now becomes severe and there is great prostration. The patient looks and is acutely ill. Nose bleeds may occur. The cheeks are flushed, conjunctivae injected and the tongue is heavily coated. The sensorium becomes dulled, at times the patients are slightly delirious and complain constantly of headaches.

On or about the sixth day of the disease, a rash appears, more often first upon the abdomen and back and then spreads to the thorax and extremities, occasionally it is seen upon the palms of the hands and soles of the feet. The rash is quite characteristic and when once seen is not readily forgotten, nor confused with that of other diseases. It consists of numerous maculo-papules, dull red in color, slightly raised, irregularly round or oval, vary in size from two to four millimeters and do not disappear on pressure, although they may fade slightly. At times the writer has thought that some of the macules would be made to disappear entirely by pressure. The rash never appears in successive crops. In one of our cases, distinct small petechial spots could be seen interspersed with the typical rash. Once established the rash remains until the temperature becomes normal, when it fades to become a brownish color.

The temperature remains constantly elevated, being 103 degrees to 104 degrees and is slightly higher towards evening. On the twelfth to the fourteenth day, the temperature begins to fall, reaching normal at times by crisis and often by a lysis extending over two or three days. With subsidence of the temperature, the headaches and general body pains cease and the patient feels very much better. Other signs noted are frequent splenic enlargement, rapid pulse, mild bronchitis, herpes labialis, and occasionally meningismus. This latter complication was present in one of our cases. Constipation is usually quite common.

The white blood count according to Brill's statistics varies between nine and eleven thousand with a polymorpho-nuclear count of about 69.4 per cent. and lymphocytic count of 30.6 per cent. The prognosis is invariably good. The treatment is purely palliative and symptomatic.

CASE REPORTS.

No.1. E. Y. Age 8 years. Seen in consultation with Dr. J. Grekin on January 20, 1920, and was then removed to Harper Hospital.

Onset one week ago with fever, chills, vomiting

and severe headaches, diffuse in character, possibly more severe over the occiput and radiating down the neck. For one day before admission to the hospital the patient was stuporous and at times delirious. She has been obstinately constipated since the onset of the illness. Has taken but small amounts of nourishment. A diffuse generalized rash was noted on the day preceding hospital admission.

Past History: Tonsillitis and influenza one year ago.

Family History: Negative.

Home Surroundings: Home very unclean. Recently relatives who live in the downtown district in Philadelphia visited at their home, and may have brought the disease.

Physical Examination: General condition—A fairly well nourished girl of eight years. She is distinctly somnolent, but can be aroused and often cries out complaining of headache. At times she is restless and irritable. She appears to be acutely ill.

Head—Hair contains many pediculi, in fact constant treatment for several days was necessary to rid the patient of the vermin.

Eyes—Pupils equal and react to light, no petechiae, no nystagmus nor occular palsies.

Nose—Evidence of epistaxis.

Mouth—Tongue is heavily coated, tonsils and pharynx congested, lips dry and fissured. Teeth and gums foul.

Ears—Canals and drum membranes normal.

Nodes—None palpable.

Heart—Not enlarged, action rapid, no murmurs.

Abdomen—Lax, tympanitic, not tender. The liver edge is palpable two fingers' breadth below the costal margin. Spleen readily palpable, one finger's breadth below the costal margin.

Skin—There is a generalized rash present upon the neck, abdomen, thorax and all extremities. The rash consists of numerous maculo-papules, dull red in color from two to four millimeters in size ,somewhat irregular in contour, not appreciably elevated. Some of the spots can be made to disappear on pressure, but not entirely. Interspersed with the larger spots are numerous smaller spots which are distinctly petechial. The cheeks are flushed.

Neurological Examination: There is a slight rigidity of the neck. The Brudjinsky sign is positive. Bilateral Kernig sign present. The Babinsky, Oppenheim and Gordon signs are positive on the right. The child lies with the head retracted.

Temperature Course: The patient was ill at home for one week without medical attention, however, we were informed that the patient had been feverish. The temperature one week after the onset was 103 degrees. It remained elevated for six days and then gradually returned to normal by lysis extending over a period of four days. She apparently had a severe febrile reaction lasting about thirteen days. The temperature varied between 103 to 105.2 degrees the higher temperatures being noted in the evenings. The pulse was constantly rapid as between 120 and 140.

She cried and complained much, took nourishment poorly and in all felt very badly until the fever declined when she appeared to have complete amelioration of all symptoms and the rash soon disappeared and speedy recovery followed.

Laboratory Examinations: The blood count—total white 13,700.

Differential:

Polys	93 %
Large lymphocytes	2 %
Small lymphocytes	5 %

Spinal fluid clear—8 cells—Wassermann negative.

Blood culture by ordinary aerobic methods was negative.

Urine negative.

Case 2. Mr. Z. Seen with Dr. J. M. Berris. Age 48 years. Occupation—Proprietor of a restaurant in one of the congested districts of Detroit where some of the transient foreign population are accustomed to gather. The history was that malaise, chilly sensations and moderate headache lasting for one week. There was also obstinate constipation and pains over the lumbar region. Following the earlier symptoms, fever was noted, the headaches which were frontal in character became more severe and the patient was slightly delirious at times. One week after the onset a diffuse rash was noted which covered the same parts as was described in the preceding case. It also had the same characteristics. The temperature range was not as high in this case varying between 101 and 102 degrees. The pulse was rapid 116 to 120. In this case there were no pediculi noted, and the home was fairly clean.

Physical Examination: A well nourished adult male, constantly complains of severe frontal headaches. The positive physical findings include a heavily coated tongue, rapid heart, few course rales at the bases, somewhat distended abdomen and a rash upon the thorax, abdomen, and extremities of the same characteristics previously mentioned. There were no meningeal symptoms.

After a typical course lasting for 12 days the temperature and pulse became normal with subsidence of the rash and all symptoms. The urine examination was negative and a differential count showed polynuclears 95 per cent. and lymphocytes 5 per cent.

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Editorials

HOSPITAL STANDARDIZATION.

The January Bulletin of the American College of Surgeons is given over to the Hospital Standardization of General Hospitals of 100 or more beds. The article is extremely interesting and we quote rather freely from it.

Hospital standardization aims to create conditions in the practice of medicine out of which every patient, however humble, may receive the highest service known to the profession. It aims to do away with lax or lazy diagnoses and treatments, with unnecessary surgical operations and with operations performed by unskilled surgeons. It aims to prevent avoidable mistakes from happening a second time, to create and to protect the right to be well for every man, woman and child.

In order to give the program a definite and tangible beginning, the College proposed to the hospitals and to the medical profession, in 1917, a minimum standard of service to patients. It then employed visitors or inspectors to present this standard to the hospitals and doctors and to explain what the standard is and what it means. The College did not assume authority to enforce the standard. The College depended upon the sheer merit and soundness of its proposals in order to win and to hold the co-operation of those concerned in the work.

The minimum standard is a statement of a practicable, workable and constructive plan for hospital betterment. It is a standard that safeguards the care of every patient admitted to the hospital by insistence upon competence on the part of the doctor, upon thorough study and diagnosis in writing for each case, upon efficient laboratory work, and upon a checking up, at least once a month, of the clinical service rendered in the hospital. It fixes responsibility throughout the hospital. It calls for the "production sheets" of the hospital but does not cause in any way violation of the confidential relationship between the doctor and his patient. It encourages and even compels research. It costs effort rather than money. It defines the minimum service to the patient which is essential.

Briefly the minimum standard is as follows:

1. That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is open or closed, nor need it affect the various existing types of staff organization. The word staff is here defined as the group of doctors who practice in the hospital inclusive of all groups such as the regular staff, the visiting staff and the associate staff.

2. That membership upon the staff be restricted to physicians and surgeons who are (a) competent in their respective fields and (b) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatever, be prohibited.

3. That the staff initiate and with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules, regulations and policies specifically provide; (a) that staff meetings be held at least once each month. (In large hospitals the departments may choose to meet separately). (b) That the staff review and analyze at regular intervals the clinical experiences of the staff in the various departments of the hospital, such as medicine, surgery and obstetrics; the clinical records of patients, free and pay, to be the basis for such review and analyses.

4. That accurate and complete case reports be written for all patients and filed in the hospital, a complete case record being one, except in an emergency, which includes the personal

history, the physical examination, with clinical, pathological and X-ray findings when indicated, the working diagnosis, the treatment, medical and surgical, the medical progress, the condition on discharge with final diagnosis, and in case of death the autopsy findings when available.

5. That clinical laboratory facilities be available for the study, diagnosis and treatment of patients, these facilities to include at least chemical, bacteriological, serological, histological, radiographic and fluoroscopic service in charge of trained technicians.

MEDICAL ADVERTISING.

How does the medical profession of Wayne County of the State of Michigan, in fact of the United States, regard the propaganda of the Henry Ford Hospital, as it has appeared in recent issues of the Detroit Evening News? Shall we supinely accept this exploitation of the institution as ethical and legitimate practice of medicine? Are such demonstrations and interviews, sanctioned by the physicians and trustees of this institution, to be regarded as wholesome reading for the general public? Or are they dangerous propaganda, striking at the dignity of the profession, and challenging its very ethics and its self-respect, reducing the medical profession to an advertising game, and giving the impression to the news readers, that only at the Ford Hospital have they the skilled physicians and wonderful apparatus necessary to diagnose and treat patients correctly?

The hospital's most recent newspaper articles (The Detroit News, March 10, 1921,) says: "The Ford automobile was built to serve that great mass of humanity, etc.," . . . "The Fordson tractor was built to serve that great mass of farmers, etc." In the next paragraph it says, "And the same idea dominates the Henry Ford Hospital." Now, is there an auto concern or any other manufacturer that has made the enormous profits on an article, and massed the fortune that Ford has? And who paid for it? From whom did Ford get the money? The only answer is, from that great "Mass of humanity," from the people who bought the machines.

In the same article in which it says, "and the same idea dominates the Henry Ford Hospital," it also says, "We do not think an institution should make money off sick people." Now, this is inconsistency in the superlative. There was no need for such articles; they were merely given out by Liebold for the sake of getting a newspaper article.

In a recent pamphlet from a famous advertising medical concern, it says, "What little advertising we do is for the benefit of humanity, and not that we need it to get a good practice." The tune in both statements sounds very much alike. Both are loaded with insinuations of the inability of others and the skill and talent of themselves.

The article says of the Hospital, "It has skill, facilities and equipment, which very likely are not available to the outside physician."

Speaking of its being a closed hospital, it says: "Why should we allow it (a case) to be treated by an outside physician, possibly one who has neither training nor facilities comparable with ours, or possibly a specialist who has had no training in the treatment of some underlying ailment?" The article further derides the ignorance of the general practitioner and the poor general training of the specialist; then its says, "Here they (the staff) specialize in those lines, for which their general practice has shown they have a natural bent or talent. The result is we have a corps of highly trained men, specializing in different subjects."

The articles describe pieces of ordinary apparatus which have been in use for years in other places in Detroit, and then says, "There are many other remarkable things at The Ford Hospital which one will have to see to appreciate. "We have this great plant with its highly trained corps, surpassed by nothing in this country. So we want just as many persons as possible to use it and get its benefits."

Now who composes this highly trained corps? Wherein lie the qualities that merit such transcending self-adulation? What have they done to further the science of medicine? How long have they been in practice? When did they graduate, and what makes them incomparable?

There are "cases in point" given out which sound like an "ad" for Mrs. Pinkham's Vegetable Compound. Listen to this one, "A woman who had a case of 'Nerves' and had spent a small fortune seeking specialists, found that her basic trouble was weakened lungs and limited oxygen consumption." Or this gem, "A man who had suffered years from 'stomach trouble' found his teeth were the root of his suffering." Or another which sounds like the "Fruitage" from Mrs. Eddy's little book: "A man who had suffered long and traveled far to find specialists to ease a 'headache' that was driving him mad, took the examination at the Ford Hospital found his aliment was a nasal infection, got a prescription, had it filled at the hospital pharmacy, got an instrument to apply the prescription, and a letter to his family doctor telling the doctor how to treat the pa-

tient in the future. Accustomed to paying specialists' bills, the man was quite overcome when the Ford Hospital gave him a bill for $8 in payment for all services rendered."

There is no malice in this editorial. Quotations are given, comparisons are made and we ask the profession a few questions. There is no reason to believe that these articles in the News were not inspired and countenanced by the staff and management of the Ford Hospital. If they were not, why did they appear in three successive issues of the News? In fact, Mr. Liebold is repeatedly quoted in giving out the interview.

Come one! Come all! "Admission will be through the main entrance in the octagon, facing on West Grand Boulevard." All one needs to do is to tell the attendant in the reception room that one is ill and wishes treatment, . . . give some evidence of ability to pay the very reasonable charges, and agree that from the moment one enters the hospital for treatment, he or she will be under the care of the Ford Hospital staff—and no one else. Outside doctors may visit and benefit by the special work of the staff." "But we do not take charity cases."—From Weekly Bulletin, Wayne County Medical Society.

HEART DISEASE.

"He died of heart disease," or "He had heart disease"—thus did, and in a measure still do, many death certificates and coroners' verdicts read. Such phraseology and such a diagnosis is evidence of unfamiliarity with present day pathology and the broader understanding of heart disorders. Many cardiac disorders manifested in the heart mechanism, heretofore undiagnosed, can now be clinically recognized and classified for treatment. Prognosis in heart disease can no longer be determined by cardiac murmurs alone. The correct modern diagnostic conclusions are no longer reached by the interpretation of the sounds one hears through a stethoscope. Auscultation is no longer the all sufficient diagnostic means.

One may by auscultation, detect cardiac disorder. By auscultation alone it is impossible to definitely determine the classification or degree of the involvement. We are not thorough in our examination if we stop there. If it is the only procedure we employ we are culpable, neglectful and superficial in our examination. What additional measures are we bound to employ if we wish to exhibit greater proficiency?

History taking, in the light of our present knowledge of infectious processes and disease is of essential importance. The history of tonsilitis, apical tooth involvement, contagious disease, gonorrhea, or any infectious disease has an important relationship to cardiac disease and characterizes certain types.

Inspection of not alone the chest, but the entire naked body and its extremties will reveal a facies, a posture or a picture that has its characteristic importance and when properly interpreted will reveal added information disclosing the true condition existing.

Palpation of the chest, neck and precordial area conveys additional knowledge that begets truer diagnosis. So to does mensuration. The taking of the blood pressure registers changes that are often of pathologic significance. The polygraph and the electro cardiograph reveal transpiring events in the heart's action—of these latter two apparatus the large majority of doctor's must be deprived because of their prohibitive price and exceptional training required to utilize. Clinical diagnosis may be fairly satisfactorily made without these two instruments. To all these there must be added a balanced clinical judgment and weighing of the evidence obtained.

What we are desirous of inspiring is:

(a) A systematic method of examination—not a simple superficial auscultation with a stethoscope.

(b) A careful, complete history taking.

(c) To not attach too great importance to to systolic murmurs unaccompanied by other signs of heart damage. Murmurs do not in themselves indicate the degree of damage. Their absence does not imply normality.

(d) Myocardial tone is of vital importance. The muscle is of more importance than the murmurs. The rhythm is more important than the rate.

We cannot be slipshod in conducting our investigations. Our diagnosis will often be in error, our opinions faulty, our advice worthless if we fail to systematically, thoroughly and intelligently conduct the examination. Let us abolish generalities, discard the term "heart disease." May we by intelligent and modern means become more definite in recording our diagnoses when dealing with conditions involving the heart.

Editorial Comments

Much has been and still is being said about Americanization and loyalty. Bitter discussion has and is taking place about parochial and pub-

lic schools. Agitation of the so-called Irish question is sowing dangerous seeds in our midst. Church and society is playing a dangerous game. Religion is seeking by creeds to assume a position that is higher than our government. A spirit of unrest is being fostered in all avenues of life and activity. The wedge of division is being driven deeper and deeper. When this division becomes deeper and larger conflict ensues. We have not as yet recovered from a war—we know its horribleness. Why not make another one impossible? We can do it if we will but consecrate ourselves to two things—the Republic first and above all things and one system, one type of education represented in free, American public schools without eclesiastical dominancy and religious bigotry. Americanization in its broadest meaning and an educational system controlled by American principles will do more to prevent war, strife, unrest and its dismal troop of disquieting possibilities than any League of Nations or large armies and navies.

Essayists preparing papers for our Annual Meeting are requested to use double space in typewriting the pages. Do not forget to give the title of your paper and follow it with your name and residence. These two suggestions facilitate arrangements for and the editorial work in publishing them. Avoid the play of words. Short sentences are desirable. Do not employ "stock phrases." Do not capitalize terms in the middle of a sentence. All numerals over fifty should be spelled. Boil down and omit non-esentials. Make your conclusions or summarization brief.

The State Medical Society of Wisconsin will celebrate its seventy-fifth birthday by holding a "home-coming" meeting in Milwaukee, September 7, 8 and 9, 1921. All former Wisconsin men, whether they have practiced there or left Wisconsin to study medicine, practicing elsewhere after graduating, are invited to this home-coming.

The officers of the society are anxious to secure at this time for mailing purposes the names of all former Wisconsin men. They will confer a favor by sending their names and addresses to Dr. Rock Sleyster, Secretary, Wauwatosa, Wisconsin.

The May issue will contain the complete program of our next Annual Meeting to be held in Bay City, May 24, 25 and 26. Those who have not already done so are urged to secure their hotel reservations.

The Chiropractors have introduced a bill to create their own State Board of Registration. It is up to each member to write to his representative and senator and urge that he vote against the passing of this act. Don't wait, do it now.

Misrepresentation, especially when it is wilfull or premediated, is the most despicable act imaginable. We are informed that parties interested in the new University Hospital and its proposed plan to go into open competition with the Medical Profession of Michigan have been doing some lobbying among the members of the legislature. They are stating that the meeting at Ann Arbor was attended only by a few disgruntled physicians who were opposed to the plan. That the majority of the profession are in favor of the plan, etc. Strange how anyone has the boldness to make such a misrepresentation! We dare not publish the epithet they merit. What we are asking is that our members record their disapproval by writing and interviewing their legislative representatives and so refute this misrepresentation. Do it now and do not mince words in doing so.

Scientists recorded their opposition to the Eugenics Bill by sending a telegram to every member of the legislature. That was organized effort exemplified. Medical organizations might well do likewise when opposing a measure—but how many are interested sufficiently for their own preservation to take the trouble?

Under our News Notes and County Society News you will find a record of what our county societies and members are doing. They should awaken an interest that manifests itself in greater organizational activity. Are you doing your part?

Indiana is proposing a yearly registration fee of two dollars for its physicians. The return from this fee, donated by the profession, is to be used for the enforcement of the medical practice acts of Indiana. The profession of Indiana evidently are not opposing the law. Personally we cannot see why the profession should be taxed to provide funds for the enforcement of any state laws that serve for the protection of the people. Why not go further and tax or assess lawyers for funds to see that laws are enforced, architects to see that buildings are properly designed, bankers to see that banking laws are observed. As pure easy marks we doctors accept the role of being the goat just as often as anyone takes a notion to make us. If Indiana is so bankrupt that it cannot pay to enforce its medical laws why doesn't the profession rise up, raise a fund, make it available for the Attorney General and have something to say about spending it? We cannot reconcile ourselves to a yearly registration tax—it's about on the level of a dog or cat tax. If it's put across in Indiana we can expect it to bob up in Michigan and other states in the near future—that's why we wish Indiana doctors would register a strenuous objection.

We note some reduction in prices in various commodities but the Nurses' Union still believe they are entitled to all they can get at a minimum of hours, meals, taxicab and ten hours sleep.

Granting that you have been busy, and so have neglected to pay your 1921 dues or attend many of your county meetings we urge that you remit your dues to your county secretary at once. This is the last issue that will be mailed to members who are in arrears.

The past few issues have contained some very interesting case reports and comments on them. We solicit more of them. Will you send them?

The Michigan Section of the Clinical Congress of Surgeons will hold a two day session in Detroit on April 28 and 29. On the afternoon of the 28th there will be a symposium on Hospital Administration. Clinics will be held in several Detroit hospitals. These state section meetings bring the work of the Surgical Congress to the doorsteps of the profession.

Well, we've got a new Brigadier-General in the Medical Corps of the Army. Of course, the President rewarded his family doctor—that is as far as the appointment goes. We know a number of men who did valiant work and made great sacrifices during the war who would be more acceptable and who would have contributed to the welfare of the people had they been made the recipient of this appointment.

We hope to be able to secure a one and one-third fare rate on the railroads for our Bay City meeting. Announcement will be made in our next issue. Remember the dates—May 24, 25 and 26.

"Tonics and Sedatives," in the *Journal of the A. M. A.* continues to maintain a popular interest. Some of the material that comes to the editor's desk is too "rich" for publication but reveals the humor that surrounds the profession. At times the column reflects pessimism and depression—we have just found out why; the editor has had an unprofitable evening. This accounts for the gloomy atmosphere reflected during the middle of March.

Correspondence

Lansing, Mich., March 22, 1921.

F. C. Warnshuis, M.D.
Secretary, State Medical Society,
Grand Rapids, Michigan.

My dear sir:—

This will acknowledge the receipt of a copy of your formal letter to the members of the legislature, I have been interested in this matter since it was brought to our attention at the time of the meeting.

Think we must admit that there are two pretty well defined sides to the proposition that the state should build up and maintain a large general hospital in connection with the University according to the present hospital program. Personally I am inclined to the belief that for the interests of all concerned, especially the multitudes of needy every day people, a large state controlled hospital would not in the long run give as efficient service as a larger number of smaller hospitals distributed throughout the state under the control and direct supervision of a competent administration. As I understand it these hospitals also discriminate in the matter of fees according to the actual ability of the patient to meet same and so distributing the expense of maintenance.

Shall hope to give this matter my most intelligent attention when it is actually brought before us.

I am taking the liberty of enclosing a bill that I was responsible for introducing last Friday. It is an amendment of the present law providing for the examination, and registration of licensed nurses. This copy does not refer to the original statute but begins with section 1 of the law itself. This bill brings the matter down to date including some features that we believe will be of distinct advantage.

The special feature that interests me is found in items 4 and 5 of Section 3 making provision for a secondary class of nurses to be known as "Trained Attendants."

Much careful attention has been given to every section in the preparation of this bill and we have the assurance that it has the support of the Commissioner of Health, the State Hospital Associations, the Registered Nurses' Organization. The Governor tells me he is in full sympathy with its provisions. Perhaps the one society that has not in a special way taken an active interest in the bill is the State Medical Society. We are hoping of course that this will meet with your hearty approval. Certainly my own purpose in connection with this matter was to help provide for competent attendants who would be able and glad to administer to our sick people in city and country, under the supervision of the family physician with perhaps equal efficiency as compared to the more highly qualified Registered Nurse and with lower fee schedule and perhaps more helpful in the average family home.

I will greatly appreciate your careful consideration of this bill and your opinion of its merits at your earliest convenience.

The matter will go to our committee very soon and there may be a demand for a public hearing before it is reported out.

Of course it is subject to any amendments that may be agreed upon as making it better.

Yours very truly,

William L. Case.

Deaths

Dr. William Elliott was born in Huron County, Canada, March 26th, 1867. He graduated from Toronto College of Medicine in 1897. He came to Daggett, Michigan after leaving his Alma-Mater, where he practiced medicine for eighteen months, then changed his residence to Powers, Michigan, where he remained for three years; then came to Escanaba, taking up the specialty of diseases of the "Ey-Ear-Nose and Throat."

Dr. Elliott was married to Miss Margaret Smith Martin in 1899 and to them two children—a son and a daughter—were born.

About ten years ago Dr. Elliott's health began to break under the strain, and he went abroad for several months, a part of the time attending clinics at Vienna.

It was thought that his health was completely restored, but it became evident after a time, that he was gradually slipping backwards and two years ago he took steps to recover lost ground. He went to Battle Creek, for a course of treatment, came home encouraged, but was compelled to again stop all activities. He went to Waukeshaw, Wisconsin, took a series of baths and came home encouraged, but the hope was not enduring, he rapidly lost strength, and succumbed to the inevitable, and as sun-set hour arrived, January 17, 1921, he quietly went to sleep.

Dr. Elliott associated himself with the Delta County Medical Society early in his residence in the county. From then until his death, he was zealous and helpful in every phase of the work. He served as President of the Society, was Treasurer for a number of years, and was a willing contributor of essays and clinical material all through the years, that he has been associated with the Society.

We, as an Association, feel keenly the loss of so valuable and efficient a co-odjutor, and wish to express our appreciation, and to extend our united condolence to the wife, son and daughter of our deceased associate and co-worker.

Therefore: Be it resolved that a copy of this resolution be spread on the pages of our minutes, that a copy be sent to our State Journal, and that a special copy be presented to Dr. Elliott's family.

Delta County Medical Society:
Dr. A. F. Snyder,
Dr. A. L. Laing,
Dr. H. J. Defuct,
Committee.

Doctor George F. Lavin was born in Green Island, N. Y., in 1870 and died in Detroit, March 2, 1921, from heart disease. When he was 10 years old, his family moved from New York State to Detroit. Here he received his education, graduating from the University of Detroit and receiving the degree of Doctor of Medicine from the Michigan College of Medicine and Surgery in 1894. He was married three years ago to Miss Carrie Henry of Detroit. The only survivor besides his widow is his brother Mr. William Lavin. In July 1909 Doctor Lavin was appointed City Physician and in 1914 he was made Chief of the Staff with 7 subordinates. He was well known as an alienist and acted as psychiatrist in the city as well as other court cases. He was a man greatly loved by his many friends, possessing a very kindly disposition. He was wrapped up in his work. He was the possessor of tireless energy. He had an unusual amount of good, common sense. His death is a very great loss.

Doctor J. N. Jessup was born in 1887 and graduated from the Detroit College of Medicine and Surgery in 1913. He has practiced medicine in Detroit ever since. He died March 12, 1921, as a result of an accident in which his skull was fractured.

Doctor Hilem E. Branch of St. Louis, Michigan, died February 22, 1921, at the age of 82. He was a practitioner of medicine in St. Louis for half a century.

Doctor Louis Orleman was born in Hamburg, Germany, in 1864, and died in Grace Hospital, Detroit, on February 27, 1921. She came to Detroit when she was 3 years old and attended the public schools there. After the death of her husband, John Orleman, she began the study of medicine and graduated from the University of Michigan in 1887. She was a member of the Practitioner's Club, the Homeopathic State Medical Society and the American Institute of Homeopaths. She leaves one daughter, Miss Louise Orleman, and one brother, Barney Nehls, of Detroit.

Doctor Julius Schoenith died in Detroit March 6, 1921, from cerebral hemorrhage. He was born in Baden, Germany, in 1850. He received his M.D. from the Michigan College of Medicine and Surgery in 1893. He was a member of the Wayne County Medical Society and the American Medical Association. He leaves a widow and three daughters.

Doctor Joseph Ablett of Lansing died at his home on February 8, following an illness of several months.

Doctor Ablett was born in Millersburg, Ohio; was graduated from the Baldwin University, and the Cleveland Medical College. He practiced in Millersburg, Ohio, Glennie, Michigan and for the past three years in Lansing.

He is survived by the widow and five children.

Doctor Martin Weller died at his home in St. Johns, Friday, February 18, after an illness of a few weeks.

Doctor Weller was born in Bengal township, April 21, 1854 and was a graduate of the University of Michigan. He practiced in Ionia, Fowler and St. Johns, Michigan.

The Doctor is survived by the widow and one son, Dr. Carl V. Weller, of Ann Arbor.

Doctor J. D. Dunlop of Alpena, died after an illness extending over five months.

He was born in Orillia, Ontario, and completed his medical education at Queens University, Kingston, Ont.

Doctor Dunlop had practiced in Alpena thirty-seven years. Surviving are the widow and three daughters.

Doctor Harry F. Taylor was born in 1862 in Mt. Clemens, and died in his native city, March 17, 1921, of septic pneumonia after an illness of three weeks. His grandfather and father were physicians in Mt. Clemens before him. He graduated from the Detroit College of Medicine in 1886. Doctor Taylor was Medical Advisor to the Avery House, Mt. Clemens, until it burned. When the United States declared war, he volunteered and entered the service six months later. He remained in the service until Decembr 1918, as Captain at Camp Custer. He then returned to Mt. Clemens and became House Physician to the Media Hotel. He was an Elk and a Mason. He belonged to the Macomb County Medical Society, the Michigan State Medical Society and the American Medical Association. He leaves a widow, two daughters (Mrs. William Boben of Detroit and Mrs. Albert Oeming of Mt. Clemens) and a son Harry. The Doctor was loved by everybody who knew him and gave his medical services freely and gladly to rich and poor alike.

State News Notes

The first annual meeting of the Michigan Section of the American College of Surgeons will be held in Detroit, April 28 and 29. All members of the American College of Surgeons are urged to attend. Headquarters will be at the Hotel Statler. Requests for Hotel accomodations should be forwarded at once to the office of Dr. H. N. Torrey, 1033 David Whitney Bldg., Detroit.

The meeting should be one of great interest. The mornings will be given over to clinics at the various Detroit hospitals. In these clinics, all possible surgical branches will be presented by Fellows of the College and their Associates. The number of visitors to any clinic will be strictly limited so that there will be no crowding. Tickets for the different clinics will be distributed to visitors the evening before, the wishes of each member being consulted in so far as possible.

On the afternoon of the second day of the meeting, there will be held a scientific section, when papers will be presented and discussed. To this meeting the profession generally, is invited. On the evening of the first day, the meeting will be open to the public at which distinguished guests will speak on the relation of the American College of Surgeons to the public and to the profession and on other surgical topics of interest to the public.

It is hoped the meeting will do much to promote an understanding of the ideals of the American College of Surgeons and further a better spirit of co-operation between the public and the medical profession in their joint efforts to improve the health and well-being of all people.

The State Administrative Board's plan to reorganize certain state boards is roughly as follows: There will be four groups consisting of:

1. State Hospitals (State Hospitals for the Insane at Kalamazoo, Pontiac, Traverse City and Newberry) Ionia Hospital for the Criminal Insane, the Home and Training School at Lapeer, and the Farm Colony for Epileptics at Wahjamega.

2. State Prisons (Jackson, Marquette and Ionia).

3. Correctional Institutions for State Wards (Industrial Home for Girls at Adrian, the Industrial School for Boys at Lansing and the Women's Home and Training School wherever it may finally be built).

4. Educational Institutions for State Wards (School for the Blind at Lansing, the Employment Institution for the Blind at Saginaw, the School for the Deaf at Flint and the State Public School at Coldwater).

The Hospital Group will have a board of 7 members, two of which are to be specialists on mental disease, and the Prison Group, the Correctional Institution Group, and the Educational Group will each have a 5 member board. These 22 Board Members are to serve without pay and will virtually be a standing committee of the State Administrative Board.

Doctor Lewellyn F. Barker has selected the following as some of the notable performances and characteristics of the late Sir William Osler:

1. The conception, organization and management of the medical clinic at Johns Hopkins Hospital is considered by many to be Osler's greatest accomplishment.

2. He had great ability to teach and inspire his students.

3. 1,000 graduates of the Johns Hopkins Medical School owe the best of their training in internal medicine to his guidance.

4. The following men were on his staff: Thayer Thomas, Futcher, MacCallum, Brown, Broggs and Hamman of Johns Hopkins, Lafleur of McGill, Dock of Washington University, McCrae of Jefferson, Christian of Harvard, Blumer of Yale, Hewlett of Leland Stanford, Longcope of Columbia, Emerson of Indiana University, and Cole of Rockefeller Institute.

5. He contributed 730 papers to medical literature.

6. His "Principles and Practice" passed through 8 editions and were translated into French, Italian, Spanish and Chinese. Over 200-000 copies have been sold. It is sometimes spoken of as the general practitioner's bible.

7. He was co-editor with Dr. McCrae of a systematic treatise, "Modern Medicine," in seven volumes.

8. He was an extremely entertaining writer on other than medical subjects.

9. He was a consultant, widely known and used.

10. He was an ardent advocate of preventive medicine.

11. His influence in building up the Medical and Chirargical Faculty of Maryland and its library was dominant. Osler Hall was dedicated in his honor.

12. He loved books.
13. His success lay in his personality. His charm of manner, his unfailing sense of humor, his wide sympathies and his capacity for comradship made him a delightful companion and a much loved friend.

The campaign to raise $1,000,000 for the endowment fund of the School of Nursing of Johns Hopkins Hospital has begun. It is the first School for Nursing to present such an appeal. The endowment will provide for a properly equipped building for teaching, adequate salaries for the instructors, an enlarged teaching staff, enlarged school for nursing and a complete change in the system of teaching including a shorter time spent in routine duties, better bedside nursing, supervision and teaching, a better correlation in the practical and theoretical training, shortening the daily hours of practical work and increasing the theoretical. work. Doctor William H. Welch of Baltimore states that the time is not far distant when the unendowed training school for nurses will be as much of an anomaly as the unendowed medical school and as little capable of meeting its responsibilities to its pupils, medical profession and the public.

The Medical Director of the Detroit Board of Health, Doctor Guy L. Connor, announces that Doctor T. A. McGraw, Jr., began March 12, 1921, his weekly clinic for cases of disturbances of the endocrine glands. During the months of January and Febraury each special room in the city was visited by Doctors McGraw and Connor and the names were taken and a rough endocrinological diagnosis was made. About 200 cases were selected. A certain number of these will be seen weekly by Doctor McGraw in the Psychological Clinic. They will be carefully studied, classified and the proper treatment will be prescribed. The results of his work will be announced later.

The Detroit Society of Internal Medicine was organized November 29, 1920 with 17 charter members. Meetings are held monthly and consist of one paper, based on the material developed under the writer's personal observation; presentation of a case and an abstract of the world's literature of the preceding year on a chosen subject. The first paper, on Therapeutic Pneumothorax, was given by Doctor H. M. Rich; the second, on Stricture of the Oesophagus, by Dr. A. S. DeWitt. Doctors Hugo Freund, Frank Sladen and Stuart Wilson comprise the executive committee for the present year.

The Toronto General Hospital possesses a Trust Board quite apart from that of Toronto University. However all appointments to the Hospital are made on the recommendation of a Committee of Three in which the University has practically 2 representatives. It is recognized by the Hospital authorities that all members of the staff are members of the teaching staff of University of Toronto and thus for all practical purposes the Hospital is a University Hospital. It is unquestionably a closed hospital and it is in the full sense a teaching hospital. It has about 500 "free beds" and about 200 "pay beds." The "per capita" cost for the months of January and February 1921 was $4.54.

The preliminary announcement of the Second International Congress of Eugenics appeared the latter part of February. It will meet in New York City September 22-28, 1921. The first International Congress of Eugenics was held in London in August 1912. While the problems of education and environment and the work of repair and reconstruction following the World's War demand such close attention that little time and money will be available for years to come for the expansion of euthenical efforts along the lines of social betterment, attention has been focused afresh on the essential value of eugenically improved races. The hereditary characteristics, temperamental, moral, intellectual and physical must be recognized, preserved and multiplied, if nations and peoples possessing them are to endure.

The Bureau of Wet Nurses has been organized in Detroit. This agency does not operate for profit and is conducted by a committee of public-spirited women in conjunction with a group of pediatrists. The milk is furnished either in bottles (the physician stating the amount for 24 hours and the number and hours of feeding the same) or the wet nurse is sent directly to the home. The milk is furnished only on a doctor's order. It is sold at a reasonable rate, at cost or given away as the case demands.

Thirty or more years ago a large number of the Detroit physicians had their offices on Fort St. and Lafayette Ave. The latter street was often spoken of as "pill alley." The trend since that time has been Northward with the grouping of the doctors in various large office buildings. The medical district during the last ten years has been around Grand Circus Park. The next move seems to be still further Northward. A new office building, exclusively for physicians and dentists, is being planned for erection in the near future and will be in the vicinity of Grace and Harper Hospitals.

The Illinois Medical Journal (March 1921) published the following statement from Doctor A. C. Eycleshymer, Dean of the Medical Department of the University of Illinois. "It (University of Illinois) must co-operate with the state and county medical societies. It must gather its materials and disseminate its results through the physician. It must supplement but not duplicate the work of the practitioner. It must co-operate with but not compete with the medical profession."

Increasing the hospital facilities for Detroit means a lowering of the death rate according to Health Commissioner Vaughan. Statistics available from 13 states in 1900 show that the city death rate was 17.4 per thousand as compared with 14.1 for the country. In 1917 the city death rate had been reduced to 15.1 per thousand while

the country rate had increased to 14.7. This decrease in cities is due to increased hospital facilities.

Doctor P. M. Hickey left Detroit the early part of March for California. He spent part of his time in Santa Barbara with friends of his.

Doctor Frances Duffield, a member of the Detroit Board of Health, advocates the adoption of a short course (six months) to train women as home and health nurses. There are many cases where an "R. N." is not needed and many more cases where people can not afford to have a registered nurse. Doctor J. D. Robinson, Health Officer of Chicago, has adopted an eight weeks' course of training for home and health nurses.

Under the auspices of the Medical Corps of the Belgian Army, an International Congress of Medicine and Pharmacy will be held in Brussels, June, 1921. All physicians and pharmacists belonging or having belonged to the armies of the allied or neutral countries are invited to attend. The following questions will be discussed:

1. The best methods found during the war for the treatment of fractures of the limbs.
2. The anti-venereal and anti-tubercular campaigns in the various armies.
3. The chemical and physiological study of the gases in modern warfare.
4. A general survey of the organization of the medical service in the allied armies.

The March 7, 1921, Bulletin of the Wayne County Medical Society contains an article on "The Koch Cancer Debacle." It calls Doctor Koch's article in the Detroit Medical Journal pure, unadulterated rot. It concludes by saying that it is hard to determine who should be more censured—the deluded Koch or the apparently reputable medical journals who spread such hocus-pocus broadcast. It recommends that the Society should in no uncertain terms disavow the man and his methods.

An effort to prevent a serious epidemic of "sleeping sickness" and to make a thorough study of the disease was inaugurated March 1, 1921, by the State Department of Health. Orders were sent to 1,710 health officers in Michigan asking that every case be reported by telegraph immediately upon its discovery to the Department. 4,500 letters were sent out to the Michigan physicians asking them to notify health officers promptly when they find cases of this disease. Specialists in contagious diseases will be sent by the Department to study cases reported and the bacteriological laboratory will examine the material submitted by the physicians attending victims of this disease.

A series of tests were recently done in the Herman Kiefer Hospital, Detroit, to determine the relative value of mercurochrome and gentian violet in the treatment of diphtheria carriers. About 81 per cent. were cured with the use of mercurochrome, about 67 per cent. with gentian violet, and about 25 per cent. cleared up without any treatment. The work is very suggestive but not conclusive as the number of cases used was relatively small.

At the recent meeting of the American Congress on Internal Medicine held in Baltimore, Md., the following officers were elected: President, Doctor Sydney R. Miller, of Baltimore; Vice-Presidents, Drs. E. S. Smith of St. Louis, and J. R. Arneill, of Denver; Secretary-General, Dr. Frank Smithies, of Chicago; Treasurer, Dr. C. R. Jones, of Pittsburgh.

Doctors Hug Freund and Francis Duffield, Henry F. Vaughan, Commissioner of Health (Detroit) and Henry Steffens, Detroit City Controller attended the Annual Congress on Medical Education, Licensure, Hospitals and Public Health in Chicago, March 7, 8, 9, 10, 1921. Municipal hospitals in Chicago and vicinity were examined by these men after the close of the congress. The data obtained is to be used in the plans for Detroit's new Municipal Hospital.

In a memorial sent to Premier Drury, the Ontario Medical Association states that Christian Science is a positive menace to the public and that a careful study of its publications reveals a deplorable condition of ignorance about disease and therapeutics. The Association also asks that Chiropractors be given no consideration in law. If it is anything at all, it is only a system of gross and pitiable ignorance.

Senator Arthur J. Bolt of Muskegon presented to the State Senate the Bolt Bill which is an innocent looking thing, providing merely for the repeal of the 1919 act that permitted the City of Detroit to take over the Detroit College of Medicine and Surgery. However, this act also provided that Detroit may establish and operate in connection with the medical school a dental school and such other kindred schools as it may see fit. Senator Bolt says that his bill repealing this act, is backed by the dentists of the state.

A number of years ago, Doctor Guy L. Kiefer while Health Officer of the City of Detroit, established medical inspection in the public and many of the parochial schools of Detroit. Now George T. Palmer, Epidemiologist of the Detroit Department of Health, comes out with the statement that medical school inspection has reduced contagious disease to such an extent that within the next generation it may be posible to eradicate disease almost entirely.

The Council on Medical Education and Hospitals of the American Medical Association has issued a tentative list of approved colleges of arts and sciences and junior colleges. Those placed on the accredited list in Michigan are as follows: Albion College, Alma College, Detroit Junior College, Grand Rapids Junior College, Hillsdale College, Hope College, Kalamazoo College, Michigan Agricultural College and the University of Michigan.

The following physicians have been appointed by Secretary of the Treasury Mellon to survey

the country and locate the soldier rehabilitation hospitals, provided by recent legislation—Doctors William C. White of Pittsburgh (Chairman), Frank S. Billings, of Chicago, Pearce Bailey of New York and W. G. Bowman of Pittsburgh. This committee will recommend to the Secretary the sites for 5 hospitals to be operated under the War Risk Insurance Bureau.

Doctor A. L. Jacoby, Head of the Psychopathic Clinic of the Recorders' Court, Detroit, recommends that practically every person recommended for probation be examined by his clinic. Many times what may seem a worthy subject for another trial at making good, judged only by his record in the past, may prove to have an inherent mental defect which assures his getting into trouble sooner or later.

Doctor Victory A. Seymour made an appeal, March 10, 1921 to the Detroit Common Council in behalf of ex-soldiers who are out of work and hungry. The Council promised the co-operation of the City Welfare Commission in the handling of these cases. An appropriation of $500,000 was recently made to the Welfare Commission for extending relief to the unemployed.

It has been announced that Doctor C. E. Sawyer of Marion, Ohio, President Harding's personal physician, will be made a Brigadier-General in the Army Medical Corps. Doctor Sawyer was in the Medical Reserve Corps during the war. He will be transferred back to active service with the rank of Brigadier-General.

A picture of the proposed new Detroit Municipal Hospital appeared in the Sunday papers, March 20, 1921. The main hospital building is built with wings attached. Connected with it and directly in front of it is the administration building. In the rear of the main building is the laboratory and surgical building which also connects with the main structure.

The Rockefeller Foundation has contributed 43,000,000 francs toward a total budget of 1,000,000,000 francs for new buildings and endowment of the Medical School of the University of Brussels. Part of the new funds will go to establishment of a nurses' training school in the memory of Edith Cavill and Mme. Depage, the late wife of the well-known Belgian surgeon.

The Johns Hopkins Press of Baltimore has recently published "A Book of Portraits of the Medical Faculty of Johns Hopkins University." It contains 37 portraits in photogravure on English hand made paper (boards 10 by 14 inches. The photographic work was done by Mrs. Doris Jaeger and the foreword is by Doctor William H. Welch.

The Third Annual Meeting of the Western Electrotherapeutic Association will be held at Kansas City, Mo., April 21, 22, 1921. At their annual dinner the following physicians will speak: Surgeon-General Cummings; A. J. Pacini, Chief of X-ray Department, U. S. Public Health Service; B. S. Price, President of the Association and others.

On January 1, 1920 there were in the institutions in the United States 232,680 cases of mental disease (increase of 8,723 in two years) 40,519 cases of mental defectives (increase of 1,138 in two years), and 14,937 cases of epilepsy (increase of 2,993 in two years). The alcoholics and drug inebrites in United States institutions decreased in the past two years 3,565.

Judge Keidan of the Recorders' Court of Detroit handed a 4 months' sentence to the Detroit House of Correction for practicing medicine without a license to Rochelle Crawford (colored). This colored "gentleman" claimed he learned the business dispensing herbs in New Orleans. He was charged with having promised to cure a cataract in three days' time.

The Detroit Department of Health states that pneumonia is the hardest disease for physicians to report. Fully three quarters of the unreported cases are of this type. There have been a number of reasons given for this failure. Physicians must report their cases of this disease just as promptly and just as surely as any other communicable diseases.

Doctor W. J. V. Deacon, Director of the Bureau of Communicable Disease of the State Department of Health, predicts that there will be 10,000 cases of small pox in Michigan during the year of 1921 at an estimated cost of $715,400. He declares that up to March 15th, 1,843 cases of this disease have occurred since the first of the year in this State.

The American College of Physicians have the following officers for 1921-1922: President, Dr. J. M. Anders of Philadelphia; Vice-Presidents, Drs. F. Tice of Chicago and C. C. Bass, of New Orleans; Secretary-General, Dr. Frank Smithies of Chicago; Treasurer, Dr. C. R. Jones of Pittsburgh.

The North Central Association of Colleges and Secondary Schools includes under its jurisdiction the states of Arizona, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Ohio, Oklahoma, South Dakota, Wisconsin and Wyoming. (18)

Doctor Charles F. Martin, Professor of Medicine in McGill University in Montreal, was entertained at luncheon at the Detroit Athletic Club March 10, 1921 by the following alumni of that institution: Doctors J. H. Boulter, Alex. Cruikshank, T. A. Dewar, A. D. Holmes and Hedley Williamson.

It has been decided to place on the ballot for the April election a proposition which will lead to the construction of a $3,000,000 Detroit Muni-

cipal Hospital. This hospital will offer to the great middle class of people a hospital that will not only be well equipped and well staffed but it will be an open hospital as well.

Doctor Reuben Peterson of Ann Arbor read a paper before the Highland Park Physicians' Club on "X-raying the Pelvis and Abdomen after Inflation with Carbon Di-oxide Gas." The paper was well illustrated with lantern slides. About forty members and guests were present.

Doctor Samuel Bell and his wife, Doctor Jean V. Bell, of Detroit, returned the middle of March from Miami, Florida. On their way home, they spent some time at the Washington Sanitarium, Washington, D. C., and at Johns Hopkins Hospital, Baltimore, Maryland.

Doctor Herbert M. Rich read a paper on "Pulmonary Abscess Treated by Therapeutic Pneumothorax" and Doctor Angus McLean one on "Lung Abscess from a Surgical Point of View," before the Surgical Section of the Wayne County Medical Society, February 28, 1921. Doctor McLean's paper was illustrated with lantern slides.

According to the records of the Columbia University, New York, published by the university authorities, the total cost of educating a physician at the College of Physicians and Surgeons is $4,600 of which the student contributes in tuition and fees $1,280.

There were 36 Detroit school children injured by automobiles during January, 1921. Of this number, four were killed and seven were seriously injured. The rest were minor accidents. January 1920 shows less than half as many automobile injuries to the school children.

Detroit now has about 3 hospital beds per thousand population, New York has 5, Chicago has 5, and Boston has 8. The additional 1,000 beds, which is provided by the new municipal hospital, would give Detroit approximately 5 beds per thousand.

The State Democratic Convention which met in Jackson, February 23, 1921, nominated Mrs. Nellie Sawyer Clark, of Kalamazoo, to oppose her brother, Doctor W. H. Sawyer of Hillsdale who is the Republican nominee for Regent of the University of Michigan.

An act of the 1920 Virginia Legislature makes it a misdemeanor to marry knowingly any person lawfully adjudged to be insane, epileptic or feeble-minded. Any marriage shall be void without any decree of divorce or other legal process.

Doctor H. N. Torrey returned to Detroit the latter part of February. He has been spending some time in his Southern home in Georgia. Mrs. Torrey and the children will remain until the end of April.

The Academy of Surgery of Detroit met in the Wayne County Medical Building, March 24, 1921. Doctor J. B. Kennedy spoke on "Retrospect of 35 years' Practice" and Doctor F. C. Witter on "Old Hemorrhages into the Spleen."

Doctor B. L. Jones of the Psychopathic Departments of Harper and Detroit Receiving Hospitals, lectured to the College Club March 10, 1921 on "The Problems of Mental and Nervous Diseases in Modern Society."

Doctor E. B. Forbes is Captain of the victorious Detroit Athletic Club Bowling Team which defeated Cleveland, Pittsburgh and Columbus in the annual tournament February 25, 26, 1921 in the Detroit Athletic Club.

During the past month the Library of the Wayne County Medical Society has been the recipient of a number of books and journals from Doctors H. R. Carstens, Ray Connor and C. W. Hitchcock.

The United Jewish Charities of Detroit gave a dinner, March 12, 1921 at the Hotel Statler at which Doctor Lee K. Frankel of New York City an Ex-President of the American Public Health Association, was guest of honor.

Admiral W. C. Braisted and Major-General M. W. Ireland, Surgeon-General of the U. S. Army, were elected to honorary membership of the Academy of Surgery of Detroit, February 28, 1921.

Harper Hospital, Detroit, was bequeathed $2,500 by the late Judge George S. Hosmer and a similar amount was given to the Little Sisters of the Poor.

Ground was broken the early part of March for the new Harper Hospital Nurses' Home, the gift of Mayor Couzens, in honor of the Harper Unit in the World War. The building will be six stories high and will contain 280 beds. It will cost $500,000, unfurnished.

Doctor Mary T. Stevens of Detroit talked before the League of Women Voters on March 2, 1921 in the Federation Clubhouse on the proposed bill to establish farm colonies for the feeble-minded.

One of the features of the Inaugural Ball, given by the Larned Post, American Legion, was the presence by proxy of the Nation's Executives. Doctor C. H. Merrill of Detroit represented President Harding.

The formal opening of the Psychopathic Clinic of the Recorder's Court, Detroit, took place Mar. 5, 1921. Doctor A. L. Jacoby, formerly Ass't. Director of the Psychopathic Hospital, Ann Arbor, is in charge.

For the first time in many years, the Michigan State Board of Registration in Medicine was not represented in the annual meeting or the Federation of State Medical Boards of the United States at their meeting held last March.

Doctor E. L. M. Bristol of Detroit left the latter part of February for Battle Creek where he will spend the month of March, going South later to remain until May. On his return he will reside permanently in New York City.

Doctor T. L. Squier, formerly instructor in Internal Medicine in the University of Michigan, has associated himself with Doctor R. C. Stone of Battle Creek. His practice will be limited to internal medicine.

The February 28, 1921 number of the Wayne County Medical Society Bulletin announces the Interne Clinics to be held in Harper Hospital during the month of March (13 in number). Ward Walks were held every Wednesday morning.

At a public hearing held in Lansing, March 8, 1921, for the discussion of the Davis,Dunn Eugenic Marriage bill, Doctors W. F. Martin of Battle Creek and O. G. Johnson (State Senator) of Fostoria spoke in its behalf.

Doctor James Inches, Police Commissioner of Detroit, spoke on "The Relation of the Community to Crime and Treatment of Offenders," before a conference held under the auspices of the Twenty Century and Men's Research Clubs.

Doctor Fred Zapffe, Secretary of the Association of American Medical Colleges, states that this Association may go back to the old plan of holding its meetings in different cities yearly in which case Chicago will not be its host next year.

Doctor and Mrs. W. R. Chittick and their daughter, Miss Frances Chittick of Detroit who have been traveling in California, have taken a bungalow in Pasadena where they will remain until the first of May.

On March 8, 1921, the Fellows of the Detroit Academy of Medicine listened to a paper by Doctor Walter P. Manton, on "Inversion of the Uterus." The meeting was held in the office of Doctor Wadsworth Warren.

The following physicians' wives will be patronesses of the "J" Hop of the University of Detroit, April 5, 1921: Mrs. Joseph H. Andries, Mrs. W. E. Keane, Mrs. Daniel LaFerte, Mrs. B. R. Shurly and Mrs. Wadsworth Warren.

Through the efforts of Major John F. Roehl of the Detroit Department of Health three physicians lost their licenses, one is serving a 15 year sentence in prison, one was fined $200 and 175 "quacks" were compelled to go out of business.

Health Commissioner Henry F. Vaughan states that it has been demonstrated practically in Detroit that 57 per cent. of children can be immunized against diphtheria in three months by one injection of toxin-antitoxin.

Doctor B. D. Harrison of Detroit appeared before the Committee on State Affairs of the House in Lansing, March 1, 1921 in reference to the budget of the Michigan State Board of Registration in Medicine.

The twenty-seventh annual meeting of the American Laryngological, Rhinological and Octological Society will be held in Atlantic City, N. J., June 3, 4, 1921 under the Presidency of Doctor Lee Wallace Dean of Iowa City, Iowa.

Senator Charles Tufts of Ludington introduced on March 3, 1921, a bill in the Senate for the free distributing of diphtheria anti-toxin and for the establishing of a suitable plant for the manufacture of the same.

Doctor Dale M. King has published in the Sunday edition of the Detroit News a number of interesting book reviews given from the psychological standpoint.

Doctor Mary Thompson Stevens spoke on the "Care of the Feeble-minded" before the Social Workers' Club of Detroit in the Unitarian Church March 14, 1921.

Doctor Fred M. Meader, of the Detroit Board of Health, gave a talk in the Detroit Y. M. C. A., March 9, 1921, on "Detecting and Arresting Disease Germs."

Doctor W. H. MacCraken, Dean of the Detroit College of Medicine and Surgery, attended the meetings of the Congress on Medical Education, held in Chicago, March 7, 8, 9, 10, 1921.

Mr. Liebold, Secretary to Henry Ford, announces that the new Henry Ford Hospital will be opened in a few months with a capacity for more than 600 patients.

President Metzger of the Detroit Athletic Club recently appointed Doctor J. W. Inches a member of the House Committee and Doctor H. N. Torrey a member of the Athletic Committee.

Michigan without a compulsion vaccination law had 2,460 reported cases of small pox last year while Massachusetts with a compulsion law had only 40 reported cases.

Doctors C. D. Aaron, C. G. Jennings, G. E. McKean and A. D. Holmes of Detroit attended the Baltimore meeting of the American Congress on Internal Medicine the latter part of February.

Doctor Alfeus Jennings read a paper before the Detroit Academy of Medicine, February 22, 1921, on an epidemic of cerebrospinal miningitis which occurred in his army service in France.

Doctor W. E. Keane, Physician to the Detroit Baseball Club, spent a short time during the middle of March in San Antonio, Texas where the Club is getting its spring training.

On Easter, the Detroit Junior Red Cross sent to 800 children in the various hospitals Easter postal cards painted by the school children, together with baskets of Easter eggs and goodies.

Doctor W. H. Hutchins has presented the Library of the Wayne County Medical Society with 157 volumes and numerous unbound numbers of journals.

Doctor F. Hutchinson of Windsor has been recently appointed to take charge of the new hospital built at Amherstburg, Ontario, by the Brunner-Mond Chemical Co.

Miss Alexa Stirling who has three times won the National Amateur Woman's Golf Championship of the United States, is the daughter of Doctor A. W. Stirling of Atlanta, Georgia.

The Detroit Amateur Athletic Association at a meeting held March 3, 1921, appointed a committee of seven to form a public athletic league. Doctor C. B. Lundy is one of these seven.

Doctor F. W. Robbins returned to his practice in Detroit the first part of March after a very successful curling trip to Scotland and an interesting and instructive visit to London, England.

During a thunder storm, March 19, 1921, the Newberry State Hospital was twice struck by lightning. Fortunately the damage in each case was slight.

March 3, 1921 Representative Charles H. Culver of Detroit introduced in the House a bill to create a separate examinating board for chiropractors.

Dr. H. E. Randall, of Flint, and Dr. F. C. Warnshuis, of Grand Rapids, were elected associate members of the Detroit Academy of Surgery.

The Detroit Ophthalmological and Otological Club held its monthly dinner March 2, 1921 at the Medical Building. Doctor Fred Johnson presented a paper on "Ocular Manifestations of General Disease."

Doctor and Mrs. Henry R. Varney left Detroit March 5, 1921 to visit their friends Mr. and Mrs. Hardy of Chicago, at their winter home in Bob Aire, Ga.

Doctor A. D. Holmes returned to Detroit Mar. 9, 1921 after two weeks' play on the links at Pinehurst, N. C.

Doctor and Mrs. I. S. Townsend of Detroit spent the winter in Miami, Florida, as has been their custom for the past few years.

Doctor and Mrs. R. A. Shankwiler of Detroit announce the birth of a son, Reed Albert Shankwiler, Jr., on February 14, 1921.

Doctor and Mrs. Alexander Blain of Detroit spent a week during the middle part of March in Rochester, Minn.

Doctor and Mrs. J. L. Asselin of Detroit announce the birth of a son, Donald Coats Asselin, February 9, 1921.

At a recent meeting of the Detroit Yacht Club Doctor Herbert Hewitt was elected Fleet Surgeon.

Doctor and Mrs. W. J. Stapleton of Detroit spent the last half of February in Baltimore and Atlantic City.

Doctor Otto Scherer of Detroit has moved his office from 1530 Broadway to 415 Washington Arcade.

Doctor J. K. Gailey of Detroit has given up his office and with Mrs. Gailey will spend some months in California.

March 11, 1921, President Harding nominated Doctor E. H. Stitt to be Surgeon-General of the Navy.

Doctor Guy L. Kiefer of Detroit has accepted the appointment of Director of the Medical Staff of the Herman Kiefer Hospital.

Doctors C. D. Brooks and Claud G. Burgess returned to Detroit, Mar. 7, 1921, after a "golfing" trip at Pinehurst, N. C.

In the primaries, held in Detroit March 2, 1921, Doctor George McKean ran fifth in a field of six for the nomination to the Board of Education.

Miss Jean Donald who is a Senior at Smith College, spent the Easter vacation with her parents, Doctor and Mrs. W. M. Donald, in Detroit.

Doctor and Mrs. E. W. Haass of Detroitt spent the third week and the fourth week of March in March in the South.

The American Congress on Internal Medicine has increased its membership during the past two years from 400 to 1250 (approximately).

Doctor and Mrs. Max Ballin returned to Detroit March 6, 1921, after a two weeks' stay at French Lick Springs.

Butterworth Hospital, Grand Rapids, has established a Diagnostic Clinic.

On March 3 a son was born to Dr. and Mrs. B. Odle, of Flint.

Miss Jenks of Warsaw, N. Y., has been spending the winter with her brother, Doctor Harrison D. Jenks, of Detroit.

Mr. Robert Scotten, brother-in-law of Doctor Angus McLean of Detroit, has been appointed an attache to the American Embassy in Paris.

During the month of February eleven new medical books were added to the Library of the Wayne County Medical Society.

Dr. D. Emmett Welsh, Grand Rapids, has returned from a three months' vacation spent on the Pacific Coast.

The Children's Free Hospital, Detroit, is adding a large sun porch to its equipment to care for the convalescent children.

In complying with required hospital standards the Hurley Hospital at Flint has elected a medical staff.

Doctor and Mrs. Vine La Rue Smith of Detroit are spending March at Signal Mountain, Tenn.

The Davis Eugenics Bill was beaten in the State Senate by a vote of 16 to 14 on March 17, 1921.

The new St. Joseph's Hospital at Flint will be opened for patients during April.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. Secretaries are urged to send in these reports promptly

CALHOUN COUNTY.

The meeting was called to order by President Shipp, at 7:30, Tuesday evening, February 1, following dinner at the Post Tavern.

The minutes of the last meeting were approved as printed in the Bulletin.

Bills were presented from the Phoenix Printing Co. for the February Bulletin, $12, and from Dr. Haughey for stamps and dinner for one guest, $3. Upon motion by Dr. Kimball, these bills were ordered paid.

A communication was read from the association of American Medical Milk Commissions referring to the fact that this Association has been more or less dormant during the years of the war, but is now coming to life and activity, and calling our attention to the ract that they have us charged up with dues of $15 per year for the past three years and the current year. During the discussion it developed that no one of our members or of the Milk Commission knew anything about these dues. It was moved by Doctor Eggleston that the matter be referred to the Board of Directors to investigate and report. Supported and carried.

The President announced the appointment of the following committees authorized at the previous meeting:

Y. M. C. A.—E. Van Camp, S. R. Eaton, A. F. Kingsley.

Legislative—H. A. Powers, G. C. Hafford, C. E. Stewart.

The application for membership of Dr. Fournadgreff was read and referred to the Board of Directors. It will come up for final action at the next meeting.

Reports of the Ann Arbor meeting were made by Drs. Hafford, Sleight, Shipp, Church.

The President called Dr. Eggleston of the Program Committee who introduced Dr. Joseph L. Miller, of Chicago. Dr. Miller gave a very interesting and instructive talk on the Anemias.

Discussion was extensive, and led by Drs. Crane of Kalamazoo, Riley, Eggleston, Case and closed by Dr. Miller.

Meeting adjourned. Attendance, 49.

Wilfrid Haughey, Secretary.

GENESEE COUNTY.

The clinical section of the Genesee County Medical Society met on Friday, Feb. 25. Dr. E. G. Dimond read a paper on "Vertigo," in which he presented the most recent views of Barany showing that all vertigos were essentially aural no matter how remote the cause. Dr. Blakely spoke on "Injuries to the Back." He gave an excellent resume of the surgical anatomy and then described the commoner injuries. Dr. M. W. Clift spoke on the Roentgenology of Spinal Diseases and Injuries. Dr. Lafon Jones reported an interesting case of Tetanus.

The Genesee County Medical Society met for noon luncheon at the Hotel Durant on Wed., March, 2, President Orr presiding. Dr. D. J. Levy, of Detroit, was introduced and gave a practical, informal address on "Diagnosis and Treatment of the Acute Respiratory Affections of Childhood." He outlined the differences between the physical signs of chest diseases in childhood and in adult life. After describing the symptoms and signs of pneumonia in childhood, he discussed in detail the differential diagnosis and outlined the principles of treatment.

W. H. Marshall, Sec'y.

The clinical section of the Genesee County Medical Society met Friday, Feb. 11, 1921. Pres. Orr presiding. Dr. A. S. Wheelock spoke on "Tumors of the Breast." He gave an excellent resume of the important points in diagnosis and urged that the public be educated to the danger of tumors of the breast.

Dr. Geo. Curry discussed "Uterine Curettage" pointing out indications and contra-indications. Dr. Leon Bogart reported a case of "Osteomyelitis of the Crest of the Ilium."

At the regular meeting on Wednesday February 16, Dr. E. K. Cullen, Prof. of Gynecology in the Detroit College of Medicine and Surgery, read a paper on "Some Points in Pelvic Infection." He laid particular emphasis on various methods of drainage.

The clinical section of the Genesee County Medical Society met Friday March 11, President Orr presiding. Dr. Wm. Lyon discussed the differential diagnosis of Rachitis and Congenital Syphilis and presented a case with signs and symptoms of both diseases. Dr. Roy McGarry spoke on the Early Diagnosis and Treatment of Syphilis. He emphasized the importance of Dark Field Examination of the exudate from suspicious sores so that treatment might be started before the infection became generalized. The subject of the treatment of syphilis brought out a most interesting discussion.

On Wed. March 26 we were favored by having Dr. Frank Smithies, Associate Professor of Medicine, University of Illinois, Chicago, address us. His subject was "The Diagnostic and Therapeutic Value of Duodenal Aspiration." He handled it in his usual masterful manner. After a brief historical resume, he discussed the physiological principles involved. He described the classes of cases suitable for this procedure and spoke enthusiastically of the results obtained.

Dr. Jas. Baird has been seriously ill with an infected hand.

Dr. C. B. Burr of Flint is spending the winter at Hotel Wagner, Los Angeles, California.

Dr. W. H. Marshall of Flint has been confined to his home for several weeks with an attack of Acute Nephritis.

Dr. Walter A. Cowie died at his home in Flint on Feb. 24, 1921, of Pulmonary Tuberculosis after an illness of 14 months. He was a member of the Genesee County Medical Society. Interment was at Hale, Mich.

W. H. Marshall, Secretary.

INGHAM COUNTY.

On January 20th the Neuro-Psychiatric Team of Dr. Inch of Kalamazoo, met with our County Society during the afternoon and evening. The subject of the afternoon session was Cerebral Arterio-Sclerosis. The following spoke upon the subject from the standpoint of the following specialties.

Dr. Inch, "Etiology and Symptomatology." Dr. Riley from Battle Creek "Neurology." Dr. Potter of Kalamazoo "Pathology." Dr. Mortenson of Battle Creek "Medicine." Dr. Wilbur of Kalamazoo, "Eye and Ear."

During the evening session Dr. Harvey of Kalamazoo spoke upon Feeble-mindedness and gave a resume of the "Mendelian Laws" as applied to the feeble-minded. Dr. Renshaw of Kalamazoo spoke upon Psychological Tests, and emphasized the necessity of these tests in preference to relying on snap judgment.

The meetings were very well attended. The evening session was also attended by public health nurses, social workers and teachers. The Society appreciated the Clinic very highly and expects to have more Clinic Teams with us during the year.

On February 10, Dr. Abbott, of Ann Arbor, spoke on Fractures of the Femur and of several of the methods that had been devised and elaborated upon in the Military Hospitals during the recent war. Dr. Max Peet spoke upon the treatment of Trifacial Neuralgia and Hydrocephalus. He stated that in most cases patients could be given definite and permanent relief from the Trifacial Neuralgia by section of the Gasserin Ganglion and in Hydrocephalus the mortality rate could be greatly reduced and patients relieved by surgical methods in cases recognized early.

Milton Shaw, Secretary.

KENT COUNTY.

At the regular meeting of the Kent County Medical Society held at Grand Rapids on the 26th of January, a resolution was passed as follows: "Be it resolved that the Kent County Medical Society is opposed to the extension of the University Hospital medical service as outlined by President M. L. Burton at Ann Arbor on January 13, 1921." Dr. Richard M. Olin, of Lansing, Commissioner of the State Department of Health, then spoke on the proposed legislation of the State Department of Health, after which the Society passed a resolution endorsing this proposed legislation. The second part of the program was given by Dr. Plinn Morse and Dr. E. W. Hass of Detroit who addressed the Society on "Encephalitis Lethargica," illustrating their remarks with the lantern. Attention was directed in the discussion to the similarity to botulinus symptoms and many interesting cases were described.

At the regular meeting held on the evening of February 9, Dr. G. V. Hamilton, of California, gave the first address entitled, "In Defense of Psychopathology." He was followed by Dr. Smiley Blanton, Professor of Animal Behavior in the University of Wisconsin, who spoke on "The Functional Disturbances of Children."

Frank Cameron Kinsey, Sec'y.

MACOMB COUNTY.

At the annual meeting of the Macomb County Medical Society which was held at Mount Clemens, Michigan, January 18, 1921, the following were elected officers for the year 1921:

President—Dr. Wm. Kane, Mount Clemens.
Vice-President—Dr. C. Mann, Halfway.
Treasurer—Dr. R. Ulrich, Mount Clemens.
Secretary—Dr. V. H. Wolfson, Mount Clemens.

Out of total membership of twenty-seven, eleven members were present.

Meyrl Croman was accepted as a member of our Society.

The question of Compulsory Health Insurance and other new laws which are before the people was discussed and it was approved by every member present that the Society shall go on record as opposed to the enactment of the Compulsory Health Insurance law if presented and furthermore it was voted to raise a fund in defense of our rights. This fund shall be turned over to the Wayne County Medical Society who have already organized and raised a fund of several thousand dollars.

Furthermore, we will take the question up with our representatives in Lansing.

It was suggested that the Society hold meetings throughout the year and this was approved. So you may expect to hear from us at various times.

I wrote personal letters and enclosed blank applications to various physicians throughout the county who are not members of the Society but only had one response.

The money (dues) for the above will be turned over to you by the Treasurer.

Victor Hugo Wolfson, Sec'y.

MECOSTA COUNTY.

The Mecosta County Medical Society was entertained by Doctors Franklin and McDonald at the former's residence in Remus, December 15, 1920. Nine members being present. Minutes of the last meeting read and approved.

Dr. J. B. Campbell reported two cases of eclampsion. Dr. L. K. Peck of Barryton presented a paper entitled "Obstetrical cases seen by the country physician." Both subjects were ably discussed by all members present. Following the discussion the society proceeded to elect new officers which resulted as follows:

President—O. H. MacDonald, Remus.
First Vice-President—G. H. Yeo, Big Rapids.
Second Vice-President—L. K. Peck, Barryton.
Secy-Treas.—D. MacIntyre, Big Rapids.
Delegate—G. H. Yeo, Big Rapids.
Alternate—Glenn Grieve, Big Rapids.
Legal Rep.—G. H. Lynch, Big Rapids.

Following the election of officers the members adjourned to the dining room and partook of a banquet prepared by Mrs. Franklin and Mrs. McDonald. No further business to come before the society motion was made to adjourn.

D. MacIntyre, Secretary.

MUSKEGON COUNTY.

The Muskegon County Medical Society met at the Union National Bank Community Room, February 11, 1921, with thirty members of the Society present. President Cramer presided. Drs. Addison and Keilin reported on Botulinus Poisoning. On motion of Dr. Garber, the secretary was instructed to correspond with the Clinical Film Company, and secure a list of the films produced. A committee composed of Drs. Kniskern, Cohan, Risk, Pyle, Jackson and Thornton was appointed to secure funds from the members of the Medical Society to furnish one of the operating rooms at the new Mercy Hospital. Dr. Garber then gave an excellent talk on "The Relationship of the Older Physician to the Younger." Dr. R. J. Harrington, who was to have discussed "The Relationship of the Younger Physician to the Older," was unable to be present, so the meeting was turned over to a general discussion in which several took part.

Meeting adjourned.

On March 4, 1921, the Muskegon County Medical Society held a joint meeting with the Muskegon Dental Society at the Occidental Hotel. President Cramer presiding. Forty-eight doctors and dentists were in attendance. Dr. Tellman represented the Dental Society, and read a paper on "X-ray Diagnosis of Focal Infection." The paper brought forth a lively prolonged discussion by both doctors and dentists. Dr. Colignon of the Medical Society read a paper on "Encephalitis Lethargy."

The President appointed a committee of Drs. Garber and Marshall to select films to be shown at a future meeting. Dr. Hinchman moved that a committee be appointed by the doctors and dentists to outline some means of closer co-operation between the two professions in regard to the handling of patients. Motion carried.

Meeting adjourned.

E. S. Thornton, Sec'y.

SANILAC COUNTY.

A meeting of the Sanilac County Medical Society was held in the parlors of the Hotel Peplow Feb. 25, 1921, at 2:30 p. m.

A paper was given by Dr. W. A. Giffen on Encephalitis Lethargica, and Dr. W. C. McLean gave a paper on Cerebro Spinal Meningitis. Both papers were instructive and interesting and were thoroughly discussed.

Miss Morse gave an address on the object and work of the County Nurse, and the meeting passed a resolution commending this work.

Adjourned to meet in Sandusky at call of officers.

C. E. Jeffery, Sec'y.

Book Reviews

THE WASSERMANN TEST. By Charles F. Craig, M.A., M.D., F.A.C.S. Second Edition, revised, enlarged. Cloth, 276 pp. Price $4.25. C. V. Mosby Co., St. Louis, Mo.

The profession is presented with a second, revised and enlarged edition of this text which first appeared in June 1918. It is based upon the author's twelve years of personal use of this test in the diagnosis and control of the treatment of syphilis. In spite of a rather wide-spread and universal acceptance of the Wassermann test there still exists much misunderstanding regarding its interpretation. The author has clearly and effectively discussed the subject so that one may gain an insight as to the value of the Wasserman test. It certainly is a work that merits a hearty reception because it is definite and conclusive in its entirety.

ON DISEASES OF THE LUNG AND PLEURAE: Including Tuberculosis and Mediastinal Growths. Sir R. Douglas Powell, Bart. and P. Horton-Smith Hartley. Sixth Edition, Illustrated, Cloth, 795 pp. Price $10.00. P. Blakeston Son & Co., Philadelphia, Pa.

This text is the sixth edition. Nine years have elapsed since the last edition and some thirty years since the work was first published. The reviewer at the very outset is deeply impressed by the completeness of the text and the exhaustive treatment of the subject. Frankly, we know of no other text that is so complete or in which the diseases of the lungs are dealt with in the full light of our modern knowledge as definitely as one finds it handled in this text. We commend the volume most enthusiastically; we urge our members to secure it. It is bound to become a standard reference work. The bibliography which is exceptionally large is most valuable and complete. Vague theories are not incorporated. Case histories are reported and aptly enhance the discussion. One might comment at length upon the features of this volume, its practical conclusions, diagnostic differentiation, etc., but to do so would entail a repetition of commending words. He who is without this book is deprived of a text that is foremost in our literature of today. We congratulate the authors and the publishers.

EPIDEMIC RESPIRATORY DISEASE: The Pneumonias and Other Infections of the Respiratory Tract Accompanying Influenza and Measles. Eugene L. Opie, M.D., Prof. of Pathology, Washington University School of Medicine. Cloth, illustrated. 401 pp. Price $6.50. C. V. Mosby Co., St. Louis, Mo.

This is an extended report of the studies and conclusions of the so-called Pneumonia and Empyema Commission appointed by the Surgeon-

General of the Army. It is a splendid presentation of the Commission's work. We are unable, however, to subscribe to their deductions and final summarization in toto. In certain instances experience has demonstrated the Commission's errors. Notwithstanding, the text is meriting recognition.

HEART AFFECTIONS, THEIR RECOGNITION AND TREATMENT. S. Calvin Smith, M.S., M.D., University of Pennsylvania. Cloth, 440 pp. F. A. Davis Co., Philadelphia, Pa.

This is a splendid fundamental volume on the heart. A work that has been long needed and is most welcome. It is the text that we busy men need. It appeals at once to the progressive physician. Especially do we urge observing the author's teachings in regard to conducting an examination of the heart. We cordially commend this book to our readers. Send for it, you will prize it highly.

OPTIMISTIC MEDICINE. By a Former Insurance Man. Cloth 318 pp. Price $3.00. F. A. Davis Co., Philadelphia, Pa.

The dominating note of this book is the importance of maintaining an optimistic attitude at all times if a man or woman would preserve a sound mind in a sound body. There are many examples given which show how the well may stay well and the sick and discouraged may "come back" by the systematic and legitimate use of that greatest of all tonics—optimism.

The author points out the many benefits resulting to the family which maintains frequent contact with some competent individual physician who, in this way can become acquainted with the physical peculiarities of each family member, an advantage of the utmost importance in treating any serious disease.

Although written in simple rather than technical language, a copious glossary is supplied.

PRACTICAL TUBERCULOSIS. Herbert F. Gammons, M.D. Cloth, illustrated, 158 pp. Price $2.00. C. V. Mosby Co., St. Louis, Mo.

As its title indicates this is in reality a practical text. A readable and interesting discussion of the subject. It presents much for thought and application.

THE AMERICAN YEAR-BOOK OF ANESTHESIA AND ANALGESIA 1917-1918. (Copyrighted January 1921) F. H. McMechan, M.D. Editor. Large Quarto, Bound in Art Buckram and printed on Natural Tint Paper 471 Text Pages, 175 illustrations. Containing a Cumulative Index of the Pertinent Literature for 1917-1918 and Contributions by 84 Eminent Authorities. Surgery Publishing Co., Publishers, 15 East 26th St., New York City. Price $10.

The American Year-Book of Anesthesia and Analgesia, (Copyrighted January, 1921) covering the advances in these subjects during 1917-1918, is just at hand in its de luxe format, making as much of a typographical as a scientific appeal. Delayed in publication by the World War, it contains those methods of anesthesia and analgesia introduced to expedite military surgery, which are to find a place for themselves in civilian practice for the benefit af all concerned.

Again the editor of the Year-Book has tried to make it appeal to all the progressive members of the allied professions and specialties, who, in any way, are vitally interested in current advances in the science and art of anesthesia and analgesia.

The Year-Book, as a cumulative encyclopedia, provides the anesthetist, specialist, surgeon, dentist, research worker and hospital superintendent with those special advances that meet their individual requirements.

Fundamental studies in the pharmaco-physiopathology of anesthesia and analgesia, of exceptional merit, have been included and as many of them have a direct bearing on the clinical handling of patients submitting to operations under narcosis, they are doubly significant and valuable.

All pertinent phases of the science and practice of anesthesia and analgesia, during 1917-1918, have been covered in collated papers and researches from the most prominent international authorities and the Year-Book is again a comprehensive and exhaustive post-graduate course. To those interested it is not a luxury but an everyday necessity as a reference volume.

Aside from series of contributions on complicating and safety factors of anesthesia, acidosis, blood changes, blood pressure variations, pharmaco-physio-pathological studies both in general and local anesthesia, methods of technic, especially those developed in war surgery and the newer methods of local analgesia in surgery dentistry and the specialties, the Year-Book contains a cumulative index of the pertinent literature for 1917-1918, which is invaluable to anyone making a study of any phases of these subjects and needing the necessary bibliography for reference or teaching.

THE KERNELS OF WHEAT.

The busy physician cannot read everything that comes to his desk. The varied assortment of pamphlets, circulars and other printed matter that comprise a considerable portion of his daily mail often receives but scant consideration unless there be some conspicuous feature in it to fix his attention. But even chaff may contain kernels of wheat—a thought suggested by the receipt of an exceedingly attractive little pamphlet just issued by Parke, Davis & Co., bearing the

superscription "Adrenalin in Medicine." Here is something which even the busy practitioner can read with pleasure and profit. It sets forth in the briefest possible manner all that is known respecting the properties and therapeutic uses of Adrenalin. Bye the bye, it is a fact not generally appreciated that the vast literature we possess to-day on the functions and medical adaptations of the suprarenal body hinges almost absolutely upon the study of Adrenalin by many laboratory and clinical workers in many countries.

We urgently advise our readers to send for a copy of the booklet for immediate perusal and future reference; a descriptive announcement will be found in the advertising section. Parke, Davis & Co. will cheerfully honor all requests for the booklet from medical men.

GRAIL OR DRAGON.

The prime task of society is the destruction of evil. This destruction is called the malecidal art.

Assistance in the destruction of evil would be given by physicians, moralists, teachers and jurists in like sequence.

The destruction of definite evil is a better technic to begin with than the construction of indefinite good.

Evil is easier to perceive than good is even to conceive.

Evil subdivides into evils more readily than good into goods.

Evils get more clearly into our minds than goods do and should by the same token be more definable.

As between destruction and construction, men are built more for destruction than for construction or are more used to destruction.

We should adopt a technic in the first instance of destroying definite, concrete, observable evils rather than of trying to construct indefinite, abstract, hardly conceivable good.

Get the Grail but first slay the Dragon.

The major groups of evil may be grouped as follows:

1. Diseases, defects of body or mind—medical—hygienic.
2. Ignorance—Educational—Pedagogic.
3. Vices (non-psycopathic)—ethical—moral.
4. Legal entanglements—legal—juristic.
5. Poverty—financial—economic.

The records of the Psychopathic Hospital, Boston, shows the problem in the order of strength as follows:

Moral	157
Legal	105
Economical	80
Medical	72
Educational	16

The vast majority of the economic problems are of pathologic and especially of psychopathic origin. The like is true of the moral and legal groups.

(Mental Hygiene, January 1921—E. E. Southard.)

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TWENTY years ago Parke, Davis & Co. introduced to the medical profession the active principle of the suprarenal gland—Adrenalin.

Little was known at that time concerning its physiologic action and therapeutic application. Today, after years of laboratory research and clinical experimentation, Adrenalin holds a foremost place among the standbys of the materia medica.

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PROGRAM—56TH ANNUAL MEETING—BAY CITY, MAY 24-26

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ORIGINAL ARTICLES

EDITORIAL

Office of Publication,
Powers Theatre Building, Grand Rapids, Mich.

Entered as second-class matter March 12, 1913, at Grand Rapids, Mich., under the Act of March 3, 1879.

The Health Department
of the State of Michigan

maintains a rigid supervision of the sanitary condition and water supply of Michigan summer resorts.

The Michigan Tourist & Resort Association gladly lends its support and active assistance to such activity and urges every physician in the state to cooperate in every way to make and keep Michigan above criticism as regards health conditions at the places where its summer guests come to visit us for a few days or for a season.

Michigan's Tourist Business

is one of its greatest assets, bringing into Michigan each year hundreds of thousands of desirable guests and millions of dollars in money.

Laying aside the monetary side of our tourist business, we must have our summer guests return to their homes healthier, happier and better for having been with us.

Our detailed road map is ready to be mailed to you without charge, upon request. It shows all state markings, official camping sites and distances between points and we supplement this with any specific information you may need.

Through a co-operative arrangement with the tourist department of the Upper Peninsula Development Bureau of Marquette, Michigan, we now are in a position to furnish information on any features of the resort sections of Western Michigan and of the Northern Peninsula. For detailed information on Upper Peninsula points, address our branch office at Marquette.

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MICHIGAN TOURIST AND RESORT ASSOCIATION
HUGH J. GRAY, Sec'y-Mgr. Morton House Building, Grand Rapids
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FLY POISON CHART

Record of press clippings showing 160 cases of poisoning in 5 years. Mostly children between 1 and 3 years. 50 known fatalities.

	1913		1914		1915		1916		1917		TOTAL	
	Numb. Cases	Fatal	Numb. Cases	Fatal	Numb. Cases	Fatal	Numb. Cases	Fatal	Nnmb. Cases	Fatal	Numb.	Fatal
Arizona	1										1	
California	1						1				2	
Colorado									1	1	1	1
Florida			1	1							1	1
Georgia					1	1					1	1
Idaho			1	1							1	1
Illinois	2	1	4	1	6	2	9	3	7	2	28	9
Indiana			8	2	2		1				11	2
Iowa			7	1	4	1	3		3	1	17	3
Kansas									4	1	4	1
Kentucky			2	1							2	1
Massachusetts					2	1					2	1
Michigan	6	2	3	2	2	1	1				12	5
Minnesota	2	2	5				10	6	2	1	19	9
Missouri					1	1	2	1			3	2
Montana							1	1			1	1
Nebraska			2		1		3	1	1		7	1
New Jersey			2						1		3	
New York			2		1						3	
North Carolina			1								1	
North Dakota	2	1	2				2	2	2		8	3
Ohio	2		3		1						6	
Oklahoma	1	1			1						2	1
Oregon	1										1	
Pennsylvania	1	1	3	1	2		4		1		11	2
South Carolina									1		1	
South Dakota							1		1	1	2	1
Vermont							1				1	
Washington	1										1	
Wisconsin	1				2	1	2	1			5	2
Canada			1	1					1	1	2	2
	21	8	47	11	26	8	41	15	25	8	160	50

RECAPITULATION.

	1913	1914	1915	1916	1917	Total
Fatal	8	11	8	15	8	50
Recovery Doubtful		6	4	3	3	16
Recovery Probable	12	31	14	23	14	94
	20	48	26	41	25	160

Ninety per cent of all case occurred during July, August, September and October.

The similarity of symptoms to those of cholera infantum make it practically certain that many cases of poisoning from arsenical fly destroyers are not correctly diagnosed. The children are in most cases too young to realize or to tell what they have done, and unless actually seen taking the poison, the illness is apt to be diagnosed as cholera infantum. The remedy for arsenic is not given and the case is treated as cholera infantum, which is, of course, prevalent at the time these fly destroyers are in use.

The laws of many States throw certain safeguards around the sale of poisons but, although these laws would appear, in many cases at least, to regulate the sale of poisonous fly destroyers, they are usually ignored.

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Original Articles

GONORRHEA IN WOMEN.

JAMES E. DAVIS, A.M. M.D.
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Gonorrhea in Women: The subject will be discussed under the following subdivisions:

1. The characteristics of the causative organism.
2. Its culture tissue sites.
3. The objective and subjective symptomatology.
4. Its pathology postulates.
5. The productive pathology.
6. The fundamentals of its therapy.

THE ORGANISM.

The maximum development of the gonococcus is attained under conditions of reduced oxygen tension, adequate moisture, at normal body temperature and the chemistry of the human protein. An exposure of the organism to the air with consequent drying and reduction of temperature very quickly reduces their verility. Successful plants must be made promptly after the conditions of their natural habitation are disturbed. The sensitiveness to temperature reduction is quite comparable in results to that of a corresponding elevation. A body temperature of 104 degrees F. is very destructive to all but the most virulent organisms.

Swartz (1) has shown that successful tube culture work requires the maintenance of the natural heat level of the organism in tissue secretion for its proposed culture medium.

It is a common observation that the gonococcus is to a considerable degree an exclusive organism. A clear field of pus cells quite frequently postulates the presence of this specific organism and conversely the presence of many types of organisms, epithelial cells and much blurring of the field postulates the absence of the gonococcus. The intracellular clusters or groups of organisms possess an individual cell morphology of plano-convex surfaces with a slightly shorter convexo-convex than plano diameter and accepts readily a methylene blue stain and is negative in its reaction to the Gram stain. The organism answers best to the foregoing standard criteria while involved in an acute infection, but its adherence is less faithful in later stages.

Smith and Wilson (2) consider the Gram differential method of no value unless the staining solutions are tested with 24 hour cultures of staphylococcus aureus and bacillus coli.

It is not only of great importance that the smear shall be obtained from its specific growth site but a satisfactory technic demands that extrinsic secretion be cleared away and a drop of freshly expressed discharge material collected by the platinum loop, fine pointed dropper or tightly wrapped swab, then evenly and thinly spread upon a clean, flamed slide. A drop of water may be used to evenly distribute the organisms and preserve the contour of the pus cells.

A single smear has a low degree of diagnostic value. Five or six smears multiply the positive findings in a direct ratio.

Jacoby (3) found only 8 per cent. of positive smear readings in a series of 300 cases of the prostitute types, but by multiple smears and deep tissue stimulation the per centum was raised to 33⅓ per cent.

The culture of the gonococcus will doubtless be used much more frequently as a diagnostic means. The new method introduced by Swartz (4) requires a reduced oxygen tension of 10 per cent. of normal atmospheric pressure. This is easily obtained by passing the culture tube above the media, through a flame 3 to 4 times. The medium must be rich in human protein and moisture, also of low acidity and alkalinity (PH 6.6 acid, and PH 8.0 alkaline). The growth on slants begins to appear in 15 to 18 hours and becomes luxuriant in 24 to 30 hours. The colonies appear as delicate, grayish, moist looking, translucent spots and the organisms remain viable for about 7 days.

Smith and Wilson (5) diagnose as positive, those pure cultures possessing organisms with classical morphology and staining reaction which do not grow in early generations without

the aid of blood serum. This rule they believe, excludes the micrococcus catarrhalis and other Gram negative cocci that grow immediately upon ordinary agar.

The gonococcus compliment fixation test is of undoubted value in chronic gonorrheal infections. The antigen should be made from different strains of gonococci. The serum, compliment and hemolytic system should have the same care as observed in the Wassermann technic.

The results of this test may reach 80 per cent. in positive fixation for cases of chronic gonorrhea.

Thomas, Ivy and Birdsall (6) report that they were unable to secure a positive reaction prior to the sixth week of the disease, or in cases in which only the anterior urethra or vagina alone were involved. They found from 33 to 75 per cent. of patients with posterior urethritis and recurrent exacerbation were positive, also 60 per cent. of stricture cases and approximately 100 per cent. of arthritis types were positive.

The same authors observed in 10 per cent. of sera, weakly, positive results were obtained with polyvalent micrococcus catarrhalis antigen. From this it was concluded that association of the gonococcus and micrococcus catarrhalis is not positively and absolutely defined.

Smith and Wilson (2) concluded, after doing considerable work in the New York City venereal clinic, that the gonococcus compliment fixation test is of undoubted value in chronic gonorrheal infections, and that a non-gonorrhoeic does not give a positive compliment fixation test.

CULTURE TISSUE SITES.

The conditions best suited for infection, growth and multiplication of the gonococcus are perfectly assembled in the generative tract. Coition affords the most effectual transportation facilities. Recessed and canalized epithelium provides a medium of proper temperature, moisture, oxygen tension and reaction, and it usually remains exclusive to other pathogenic organisms. The facility afforded for lateral fusing of the end portions of the epithelial cells and for outlet closure of crypts or ducts is ideal.

After puberty the urethral meatus and its two or three cryptic flands (Skene's), the cervix uteri, the major vestibular duct meati, ducts and glands, and the oviducts are the important anatomical units of infection demanding inspection in every suspected case.

The vagina, fundal endometrium, urinary, bladder, urethra, ovary and peritoneum are of secondary importance.

In a third group should be included contiguous tissues to those of groups one and two, and also hematogenous and lymphogenous, diffused infections.

In group four should be placed the accidental contact units such as the eye, rectum, local areas of epidermis, etc.

OBJECTIVE AND SUBJECTIVE SYMPTOMATOLOGY.

A careful clinical examination is exceedingly important and valuable. The use of laboratory methods exclusively, in the diagnosis of gonorrhea is pernicious and indicates unpardonable laziness in diagnostic effort.

The objective picture to be anticipated is that of any inflammation from pathogenic organisms but in gonorrhea it is found in single or multiple distribution to the specific sites previously named.

At the urethral meatus there is observed discharge of a pyogenic character which is usually augmented easily by expression which shortens and empties the cryptic glands. There is some degree of increased redness, tumefaction, swelling or pouting of the meatal margins. In chronicity, evident hyperplasia is present in caruncle formation.

The cervix has a duplication of the urethral meatal condition except as it is carried by the anatomical tissue form. The discharge is more profuse, redness is more intense, the swelling is greater and there is typical erosion with slight gaping of the os, giving some degree of exposure of columnar epithelium. Prolongation of infection brings hypertrophy, hyperplasia, cervical gland occlusion (retention cysts) and glandular erosion presenting multiple, two to five millimeter, discreetly placed, pink and bluish, bulging, thin walled areas over the convex surface of the cervix. The internal os remains tightly closed until the endocervium is extensively infected, or until cyclic physiological dilatation occurs. A chronic catarrhal reaction of the endocervium produces a profuse, tenacious, bluish and creamy discharge which is not easily removed.

The Bartholin duct meati presents a distinct flea bite appearance. This congestion is intensified by hooking a finger back of the levator ani muscle and pulling forward with slight outward traction of the labia. If the ducts are massaged, distinct drops of pus may appear at the meati changes. The gland is practically always palpable in its normal condition and carefully acquired experience will enable detection of its pathological changes in gonorrhea.

The oviduct infections occur, in most instances, after repeated attacks of gonorrhea, or in relation to pregnancy, particularly abortions

and miscarriages, or as mixed gonococcus, streptococcus, staphylococcus and colon infections.

Direct palpation of the oviduct is best accomplished by distinct fixation of the uterine fundus by pressure upon the abdominal wall so as to descend upon and press forward and downward the entire uterus, feeding it, so to speak, to the examining fingers at the proximal angle of the tube and the uterine wall. Palpation is then accomplished by the opposing fingers, one of the most helpful and certain diagnostic aids is the differential condition of the proximal end portion from the remainder of the tube. With no change in the size or in the wall resistance or motility, a negative pathology can usually be postulated. A soft proximal end portion with a soft, enlarged middle or distal third is indicative of an acute process. A hard but somewhat enlarged proximal third and a distinctly enlarged and firm walled remaining portion defines a chronic salpingitis.

Vaginitis, endometritis, ovaritis and cystitis occur much less frequently than is usually believed. The involvement is, at least, usually mild and transitory and, in gonorrheal infections, leaves but little permanent tissue change. Vaginitis is however, quite important before puberty. In this period the vaginal mucosa is delicate, non-resisting and has a narrow stratification, many of the cells of the layer are transitional types. The introitus is continually very well closed making the vagina a suitable culture site. Objectively, in these subjects, the vaginal epithelium is frequently denuded and the entire introitus is bathed, almost continuously, with a typical discharge.

The limits of the paper will not permit a discussion of the groups two and three. Suffice it to say that gonorrheal infection involving their anatomical units will have objective symptoms quite similar to inflammations caused by other pathogens.

The direct subjective symptoms from an exclusive Neisserian infection are surprisingly few and mild in the female. I have taken hundreds of histories from prostitutes, who had all degrees of pathological tissue changes, and it was quite exceptional to obtain a description of troublesome symptoms. The cases, however, that had abortion, miscarriage or childbirth were in sharp contrast. Then the symptomatology was varied and severe.

PATHOLOGY POSTULATES.

The urethra, cervix uteri, vulvovaginal gland apparatus and oviducts are the important anatomical units in gonorrheal infections. The severity and extent of the pathology manifested in these primary sites will quite accurately postulate both functional and permanent tissue changes. The menstrual deviations will vary from simple irregularities to amenorrhoeas and menorrhagias caused by indirect and direct inflammatory changes in the ovary producing luteal dysfunction. The reproduction function is particularly jeopardized during the early months of pregnancy.

All of the usual effects produced by a pathogenic bacterium, in its specific sphere in addition to accentuation from the monthly and child bearing functions and the practice of coition, are to be considered. The close relation of the generative system with the endocrines is beset with many variants, during and following gonorrheal infections.

PRODUCTIVE PATHOLOGY.

The tissues exhibit a marked catarrhal change with a mucopurulent discharge, infiltration of small round cells and exfoliation of epithelium, fibroblastic tissue production, adhesion of mucous surfaces with consequent retention of infected secretions and pressure atrophy of mucosal structures.

The more superficial tissues are frequently involved in granulomatous changes. The extension of gonococcal infections beyond the usual sites predicts functional pathology corresponding to the organ or specific tissue involved and the additional changes common to pathogenic organisms after any type of tissue is invaded.

There are two outstanding features in the gonococcal infections of the genital apparatus, one being the infrequency of involvement of the fundal endometrium and functionating ovarian tissue, and the other is the very wonderful repairative possibilities of the oviduct.

TREATMENT.

The measures used in the therapy of gonorrhea in women may be summarized as preventive, local and general. The first means is idealistic, but real, when accomplished. The second is palliative, perhaps curative, with high tissue resistance and low virility of organism. The third is supportive and perhaps, so far as we know, the ultimate resulting measure.

A discussion of prevention cannot be undertaken in this paper. Of the local treatment certain essentials are to be observed. The maximum tissue drainage is demanded, securing the greatest possible dehydration and the highest oxygen tension. The transfer of infection from a single site to multiple sites is to be avoided.

The chemical of choice should possess a high

penetration power, a high gonococcocidal ability good anesthetic quality and freedom from caustic or other injurious effects upon the local structures. Theoretically and also practically, methylene blue appears to meet these requirements best. Its gonococcocidal action according to Dorland (7), is efficient in the strength of 1-250,000. It has been used by Foss (8) in dehydrating solution combined as follows:

Methylene blue ----------1 gram
Glycerine ---------- 25 c. c. m.
Water ----------100 c. c. m.

The general treatment should utilize all measures which can be effectual in securing the highest possible degree of resistance. The greatest of all means for this accomplishment is rest.

111 Josephine Avenue.

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CONGENITAL MALFORMATIONS IN THE URINARY SYSTEM.

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INTRODUCTION.

It is a well known fact that congenital malformations of the urinary system occur rather frequently. Some of these malformations are of minor importance, and the individuals in whom they obtain often live to old age and the anomalies cause no serious disturbances. They thus remain unrecognized throughout life and are discovered only at autopsy. Then again the anomalies may be very marked, even to the extent of being incompatible with life and the individual affected dies in infancy. Between these two extremes are malformations which are more or less serious. Some produce symptoms in early life; probably during the first six or seven years of life denoted as babyhood; others show symptoms during the years from puberty to maturity; still others are of such a nature as to render the kidney below par and symptoms are at once apparent when scarlet fever or other fevers which tax the kidneys appear. Besides the anomalies of the kidneys we also find anomalies, which produce more or less serious consequences, in the remaining parts of the urinary system; in the ureters, the bladder, and the urethra, an almost endless variety of anomalies of the urinary system is possible.

The explanation of the occurrence of such anomalies has been attempted by some scholars of embryology. This problem alone—a problem which is as yet far from being fully solved—furnishes material for an extensive treatise.

The results of such malformations as well as the congenital malformations of other parts of the body accompanying malformations of the urinary system, are variable.

Thus considering the various types of malformations that may occur, in regard to their form as well as in regard to their extent; the explanation of these on embryologic bases; and the consequences of such anomalies; it becomes at once apparent that a brief discussion like the one in hand must be somewhat superficial—covering the topic merely in a general way.

The material used in compiling this paper has necessarily been taken from various sources in the Medical Literature. A complete list of the references resorted to appears at the close of this paper. These referencs are numbered 1 to 28 in successive order. Throughout the discussion where facts are recorded that were obtained from any one reference or from any group of references such references are indicated by "Reference Number" appearing immediately at the close of such paragraphs, or divisions, in which the citations appear.

Certain malformations of the lower urinary tract—such, for example, as those involved in hermaphroditism—fall more properly under discussions of the genital tract and are therefore merely touched upon here. Likewise the clinical diagnosis of anomalies has been omitted.

CONGENITAL MALFORMATIONS IN THE URINARY SYSTEM. GENERAL OUTLINE.

A. Embryology and early development of the urinary system in brief. This is given to afford an insight into the early conditions that favor malformations.

B. Detailed outline of the malformations as discussed in this paper.

I. Malformations of the kidney:
(a) Frequency of occurrence.
(b) Types of malformations of the kidney.
1. Fused, or horseshoe kidney.
2. Solitary kidney.
3. Congenital cystic kidney.
4. Congenital absence of both kidneys.
5. Ectopic kidney.

6. Atrophic kidney.
7. Fetal lobulation of the kidney.
8. Supernumerary and abberrant blood vessels.

II. Malformations of Ureters and Renal Pelvis

(a) Types of malformations (frequency of occurrence mentioned under each separate type).

1. Duplication of the ureters, on one and on both sides.
2. Division, or partial duplication of the ureters.
3. Congenital ureteral structure.
4. Single ureter supplying a single kidney.
5. Single ureter dividing to supply both kidneys.
6. Duplication of the renal pelvis.

III. Malformations of the Bladder:

(a) Types of malformations

1. Absence of the bladder.
2. Extroversion of bladder.
3. Remains of the urachus.

IV. Malformations of the urethra:

(a) Types of malformations

1. Stricture of the urethra.
2. Dilatation of the urethra.
3. Opening of the urethra to the outside at unusual places.
4. Two or more openings of the urethra.

V. Rare and exceptional cases of deformity in the urinary organs.

C. A complete list of references upon which this writing is based.

BRIEF EMBRYOLOGY OF THE URINARY ORGANS.

The essential parts of the permanent kidney are the renal corpuscles, secretory tubules, and collecting tubules. The collecting tubules open into the calyces and the pelvis. The pelvis in turn is continuous with the ureter, and the ureter in turn opens into the bladder.

The kidney is of double origin. The ureter, pelvis, calyces, and collecting tubules are outgrowths of the mesonephric duct. The secretory tubules and the capsules of the renal corpuscles are differentiated from the caudal end of the nephrogenic cord. (The nephrogenic cord is mesodermal tissue surrounding the mesonephric duct, ureters, pelvis, calyces, and collecting tubules that develop from this duct.) This double origin of the kidney accounts for certain anomalies occurring in this organ, as, for example, the uriniferous tubules fail to unite with the collecting tubules, cystic degeneration may take place, and we have the cystic kidney of pathology described elsewhere in this paper.

The mesonephric duct is the duct of the primitive kidney in the embryo. It consists of a long tube in the lower part of the body cavity running parallel to the spinal axis and joined at right angles by a row of twisting tubules. In 5 mm. embryos the anlage of the ureter, pelvis, calyces, and collecting tubules are present as buds of this mesonephric duct. By following out these figures it will be seen that a saddle-like partition wall grows caudally between the intestine and the allantois, dividing the cloaca into a dorsal rectum and a primitive urogenital sinus. The division is complete in embryos of 11 to 15 mm. and at the same time the partition, fusing with the cloacal membrane, divides the membrane into the anal membrane of the gut and the urogenital membrane.

At 11mm. the primitive urogenital sinus, by elongation and constriction, is differentiated into two regions: (1) a dorsal vesico-urethral anlage which receives the allantois and mesonephric duct and is connected by the constricted portion with the 2nd region—the phallic portion of the urogenital sinus. The latter extends into the phallus of both sexes and forms a greater part of the urethra. The vesico-urethral anlage enlarges and forms the bladder and a portion of the urethra. In seven mm. embryos the proximal ends of the mesonephric ducts are funnel-shaped, and at 10 mm., with enlargement of the bladder, these ends are taken up into its wall until the ureters and mesonephric ducts acquire separate openings. The ureters now open into the vesico-urethral anlage to the mesonephric ducts. The lateral walls of the bladder anlage grow more rapidly than its dorso-median urethral wall, hence the ureters are carried cranically and laterally upon the walls of the bladder, while the mesonephric ducts, now the male ducts, open close together into the dorsal wall of the urethra.

(The urogenital fold is the anlage of both the mesonephros—the second pair of temporary kidneys in the embryo—and the genital gland. When the mesonephroi degenerate the mesonephric ducts become the male genital ducts. There is also a close relation between the development of the urinary organs and the development of the genital organs. This will tend to explain certain anomalies of these latter organs as accompanying anomalies of the urinary organs; as, for example, a single kidney accompanied by a lack of vagina and uterus, etc. Other cases are mentioned in other parts of this paper. In such cases it is probable that the factor favoring an abnormal formation in the one case also tended to produce the anomaly in the other case.)

Each one of the mesonephric corpuscles and tubules represented in plate No. 3 is supplied by a separate blood vessel. One or more of these mesonephric arteries is transformed into the renal artery of the permanent kidney. As any one of these mesonephric arteries may thus form the renal artery, and as they anastomose, the variation of the renal vessels both as to position and as to number is accounted for.

The above brief discussion of the embryological development of the urinary organs may in a degree make clear why so many and such varied anomalies occur in connection with these organs. Being mindful of the early development of the urinary organs it is readily seen how the nephrogenic tissue of the paired kidney anlage may fuse and we have the fused, or the horseshoe kidney, or also the large solitary kidney. Or we have the double ureters to a single kidney, or also ureters that fuse at our near their entrance into the bladder. It is impossible, however, to explain all the anomalies of the urinary organs satisfactorily with our present knowledge of embryology. Double and triple ureters as well as other peculiarities, which will be mentioned in this paper, are occasionally met with for which no explanation has been offered.

(References 26, 25, and 14.)

MALFORMATIONS OF THE KIDNEY.

Frequency with which congenital malformations of the kidney occur:

The frequent occurrence of the congenital anomalies in the kidney and ureter is not generally appreciated. Dr. Wm. Braasch, of Rochester, Minnesota, upon reviewing the surgical and clinical records of the Mayo Clinic for the five years from 1907-1912; finds that in a total of 660 cases of renal disease met with during those years gross renal and ureteral anomalies were found in 36 cases. The various anomalies in the order of their frequency were as follows:

Fused or horseshoe kidney	11
Congenital single, or asymetrical kidney	6
Atrophic kidney	5
Ectopic kidney	3
Duplication of renal pelvis	8
Division of the ureter	4)

(References 1 and 7.)

Ralph Thompson, writing for the Journal of Anatomy and Physiology, 1913-1914, gives the following data relative to the occurrence of congenital anomalies of the kidney: From the postmortem records of the Guys and Victoria Hospitals in London, where a total of 11,150 subjects were examined, 16 cases of horeshoe kidney were found. Or one case of horeshoe kidney occurred in 620 cases of all subjects examined, 14 of these were found in males, one was found in a female, while in one case the sex was unrecorded.

The same writer gives the following report regarding his findings on solitary kidneys: Postmortem records from the Guys, the Victoria, and the London, Hospitals show a total of 13,505 cases examined. Of these 8218 were males, 5,287 were females. In the entire number 23 cases of solitary kidney were found. Or one case of solitary kidney in every 587 subjects examined. Divided as to sex his figures are as follows: 14 males, 8 females, and one of unknown sex. Bearing in mind the preponderance of male postmortems over those of females it is seen that the incidence of solitary kidney is practically equal in both sexes.

(Reference 2.)

The frequency of congenital absence of one kidney, the fusion of the two kidneys, and atrophic kidney, has been thoroughly worked out by Sir Henry Morris. This man of research gives the following averages derived from reports of postmortem examinations conducted at four London hospitals, combined with published statistics of other writers. Congenital absence of one kidney—1 in 3992 cases, or about 1 per 4000.

Fusion of the two kidneys (horeshoe kidney) 19 in 18,244 cases, or 1 per 1000.

Atrophied, small, shrunken, or wasted kidney 59 in 8,178 cases, or 72 per 1000.

(Reference 7.)

Dr. Anders cites one case of single kidney in 1817 examinations. This is based upon a total of 92,690 autopsies.

Regarding the occurrence of anomalies of the kidney it is of special importance to note the frequent occurrence of solitary kidney. Diseased kidneys are often removed. In case of a solitary kidney occurs and this is removed death ensues due to uremia. Hence it is important to be aware of the fact that solitary kidney is not infrequently met with. And it is, furthermore, important to be able to diagnose such cases before an operation is attempted.

Types of malformations of the kidney considered separately.

1. The fused kidney:

As noted above, this type of kidney is met with rather frequently. It may assume any of a great variety of forms, and may be situated in various parts of the abdomen. The type of fused kidney most frequently met with is the so-called horseshoe kidney. In this case the ends of the organs, usually the lower ends, are joined together by a commissure. The commissure is usually composed of kidney tissue, but sometimes it is composed of connective tissue. The two kidneys may be normal except for this commissure. The usual position of such a fused kidney is in the median abdomen at about the level of the umbilious, although it often lies more to either side of the spine. Occasionally it lies diagonally with one pole extending down into the bony pelvis.

As mentioned above, Dr. Wm. Braasch of Rochester, upon examining the records of 660 cases of renal disease, found 11 cases of fused kidneys. 8 of these were of the horseshoe type; 3 were of the so-called sigmoid—C-shaped type—while 1, besides being a fused kidney, had three separate pelves. As to sex the above anomalies were equally divided—namely 5 males and 6 females. Regarding age it is important to note that if the anomaly is such as to produce complications such complications will appear in the young adult usually after the full development of the individual has just been reached. This is readily seen from the reports of the Mayo Clinic mentioned above; six of the 11 cases appeared in patients below 30 years of age and 5 of these had to be operated on for complications of the kidneys resulting from the malformations. On the other hand the anomalies occurring in patients over 30 years of age were discovered merely accidentally at the time of operation for some other abdominal lesion.

(Reference No. 1.)

On a preceding page the records of the Guys and Victoria Hospitals in London have been referred to. Their records show that in a total of 11,150 autopsies, 15 cases of horeshoe kidney were found, or roughly 1 in 620 cases of all subjects examined. Males showed a large preponderance over females, namely: 14 males, 1 female and 1 whose sex was not reported. In these 16 cases the concavity was directed upwards in 10 subjects; downwards in 2 subjects; not recorded in 4 subjects.

A bridge of renal tissue connected the two halves in 5 subjects.

A fibrous bridge connected the two halves in 5 subjects.

The ureters and pelvis lay in front of the renal mass in 5 cases.

The ureters and pelvis lay behind the renal mass in 2 cases.

A single ureter existed in 2 cases, in one of which it lay behind the renal mass, while in the other it lay in front.

The renal mass was displaced downwards in 5 cases.

In two of the above cases other abnormalities

of the body were noticed; in one case recto-urethral fistula existed, while in the other case a lobeless right lung was present.

(Reference No. 2)

(Note: Anomalies of other organs of the body accompanying anomalies of the urinary organs occur quite regularly, and will be mentioned in various places throughout this paper.)

Dr. Clarence G. Bandler, writing for the Medical Record, states that in cases of horeshoe kidney supernumerary ureters often occur. He also notes that where the fused kidney is displaced downwards this may be due to the fact that fusion occurred from the fifth to the seventh week of embryonic life, before the kidney ascended into the abdomen.

(Reference No. 6)

Although the horeshoe kidney is the type most frequently met with in dealing with fused kidneys, other types also occur. The two kidneys may be united throughout so as to look like a single misshapen organ with two or more pelves and irregular blood vessels. The united kidneys may be situated on one side of the vertebral column or in the pelvis.

(References: 1, 6, 7, 11, 12, 25, 26.)

2. Congenital single kidney:

The etiology of congenital absence of one kidney is obscure. But it is probable that the defect originated in an arrest of the development of the distal end of the Wolffian duct, and in a failure of this distal end to unite with that part of the cloaca from which the urogenital sinus is derived. The normal outgrowth of the renal diverticulum is therefore checked, and the mesonephros the genital gland and the upper end of the Wolffian duct, if formed, subsequently atrophy. The atrophy in the male subject is probably due, in part at least, to there being no outlet for the escape of testicular secretion.

The kidney is congenitally absent on the left side about twice as frequently as on the right side. This may possibly be due to the fact that the umbilical cord is drawn toward the right side in young embryos of from 4-10 mm. in length. It is during this period that the Wolffian duct first penetrates the wall of the cloaca and the renal diverticulum grows out from its lower end. Now as the cloaca will be pulled over to the right with the umbilical cord, it will be farther away from the growing lower end of the Wolffian duct on the left than on the right side. This may account for the greater frequency in the failure to unite with the cloaca on the left than on the right side.

(References 7, 11, 12, 13 ,25, 26.)

Where congenital single kidney occurs we usually have only a single meatus entering the bladder. The meatus that is present is often situated in an unusual position either in the medium line or in the extremely lateral side of the base of the bladder. The trigone of the bladder is thus distorted. There may be an hypertrophy of the muscular ring about the meatus and the peristaltic contraction is exaggerated. The pelvis of the kidney is usually enlarged, but otherwise quite normal in outline. The parenchyma is also proportionately increased. Where a single kidney exists congenitally only one ureter is usually found, there being no remnant of the other one. Exceptions to this rule occur, however, as will be noted later.

Figures regarding the occurrence of solitary kidney vary very much. White and Martin in England mention solitary kidney as occurring 1 out of 400 individuals. Sir Henry Morris, also an English doctor, gives the figures 1 to 4000 individuals. Ralph Thompson (Ref. 2) upon resorting to the records of the Guys and London Hospitals, as well as the Victoria Hospital, reports 23 cases of solitary kidney in 13,505 cases examined. Or 1 per 587 individuals.

Of the above 23 cases there were 14 males and 8 females (and one whose sex was unrecorded). Bearing in mind the male postmortems over females, namely; 8218 males, and 5287 females, we see that the incidence of solitary kidney is practically equal in the two sexes.

Further details with regard to these cases of solitary kidney may be briefly summarized thus:

Right kidney present	8
*Left kidney present	13
Doubtful side	1
Sacral kidney	1

*This is contrary to the findings of most investigators, namely: that the left kidney is absent about twice as often as the right one.

In all these cases the solitary kidney was larger than usual.

In three cases the solitary kidney was proveded with two ureters, opening either together or separately into the bladder. See Fig. plate 6.

In four cases the bladder ureteric outgrowth for the missing kidney was present-patent for about an inch, and terminating in a fibrous cord.

A very interesting case of solitary kidney that I noted was that of a male child aged six weeks. The autopsy was performed by Prof. H. R. Dean, of the Victoria Hospital, London. In this case there was a lobulated left solitary kidney reaching as low as the bifurcation of the aorta, with three segmental vessels passing to the kidney from the left side of the aorta; and two ureters, one from the front and upper part, extending downwards in front of the organ to the pelvis, and another ureter passing from the lower and narrow end of the kidney. The upper ureter passed to the bladder and opened into that viscus in the usual position of the left ureter. The lower ureter cut across the bifurcation of the aorta, lying superficial to that vessel, and opened into the bladder in the position of the right ureter. See Fig. plate 6.

(Reference 2.)

Dr. Reginald Gladstone of Kings College London gives the following measurements of the solitary kidney as compared with the measurements of an average normal kidney:

	Single Kidney	Normal Kidney
Length	5¾ in.	4¼ in.
Width	2⅞ in.	2½ in.
Thickness	4¼ in.	1¼ in.
Weight	11 oz.	4½ oz.

The pyramids of the solitary kidney were enlarged but only nine in number, which is the average number in the normal kidney. The glomeruli and the tubules of the single kidney were also enlarged.

Note: For the clinical diagnosis of solitary kidney one may turn to references 1 and 24. A

lengthy discussion of the technic followed at the Mayo Clinic is here given.

Congenital absence of one kidney is often accompanied by malformations in the external genital and urinary apparatus. The lower portion of the vagina, the ovary, and the Fallopian tube may be absent. The labia majora may be rudimentary, and the labia minora absent. The testicle and deferent duct also may be rudimentary or absent on the same side where the kidney is missing.

(References on solitary kidney 1, 2, 7, 11, 24.)

3. Congenital Cystic Kidney:

This is a peculiar affection of the kidneys which leads, during embryonic development, to the formation of cysts throughout both kidneys (and frequently to the formation of cysts in the liver as well). Most of the substance of the kidney is occupied by these cysts, and there is extremely little functional tissue left between them. Yet such people may grow to adult life without knowing that there is anything wrong with their kidneys. In later life they may die of renal insufficiency after the injury of the scarcely sufficient tissue. In infancy the kidneys form huge masses of gelatinous cystic tissue, in rare instances so large that they must be removed before the delivery of the child at birth is possible. In such cases the fetus may also be otherwise extensively malformed. The cysts may be in immediate relationship with the glomeruli, or they may be developed in the first part of the convoluted tubule and connected by a narrow canal with the glomeruli.

Ribbert, (Reference 28) holds that the cysts are caused by interference with the union of the glomerular part of the tubule with the other rudiment, which grows up from the ureter to join it. And in the presence of this condition the glomerular portion dilates into a cyst. The end of the ureteral portion may also become cystic.

Others regard the whole process as an adenomatous growth, which it is said might account for the similar growth of cysts in the liver. As cause of such cystic condition in the kidney Delafield and Prudden hold that the dilatation of the tubules may be due to obliteration of their distal ends; or, it may also be due to stenosis of pelvis, ureter, bladder and urethra. It seems, however, most plausible to base the change on anomalies of embryonic development.

In the adult the cystic kidneys may form two huge tumors occupying the whole abdominal cavity on each side, but made up of cysts about the size of a cherry or larger, filled with clear, or dark brown, or turbid fluid. (MacCallum) Between these cysts, which are lined with low cubical epithelium, there are scattered normal tubules and glomeruli.

In infants one may occasionally see another type of cystic dilatation of the tubules which occupies the pyramid and leads to the fusiform widening of the conducting tubules.

(References on cystic kidney 7, 12, 13, 22, 23. and 28.)

4. Congenital Absence of Both Kidneys:

Both kidneys are absent in very rare cases. This congenital malformation is accompanied by other extensive malformations in the fetus. Such conditions are, of course, incompatible with life.

(Reference 12.)

5. Ectopic Kidney:

Anomaly regarding the position of the kidney is often met with, and such conditions may be required or congenital. One or both kidneys may be concerned, and the change in either lateral or downward. A moderate deviation from the normal situation, or a freely moveable kidney, is not necessarily considered a congenital anomaly. When, however, the kidney is found fixed in the bony pelvis or across the spine, and when its blood vessels come from adjoining vessels, such as the iliacs, it is regarded as a true congenital anomaly. And such a kidney is called an ectopic kidney, or also a pelvic kidney.

As mentioned above, a total of 660 cases of renal disease were dealt with at the Mayo Clinic during a period of five years. Among these 660 cases were found 3 cases of ectopic kidney of the congenital type. The organs were fixed in the bony pelvis and the blood supply came from adjoining vessels; the iliacs.

Malformation of various genital organs accompanied the above mentioned anomalies. Various other writers also refer to the congenital pelvic kidney as being accompanied by other congenital anomalies. For example: Abell, in the Vol. of Surgery, Gynecology, and Obstetrics for 1916, reports a case of pelvic kidney in which case also occurred an absence of the vagina, absence of the uterus, uterine tubes and ovaries. Dr. Thomas in the same publication describes a case of pelvic kidney with vagina and uterus absent. Cullen similarly reports one case of right pelvic kidney with vagina, uterus, and left kidney absent. (Note: The technic for diagnosing ectopic kidney clinically may be found in references 1 and 24.)

(References on ectopic kidney 1,9,12,24.)

6. Atrophic Kidney:

In a few cases congenital atrophy of one kidney have been found. This is indicated by an atrophy of the circular muscle seen about the normal meatus where the ureter enters the bladder. The meatal construction will be slight, secretion small in amount, and seen but occasionally The other meatus will usually show a corresponding compensatory increase. Atrophy of the ureter is usually in keeping with the degree of renal atrophy. The pelvis of the atrophic kidney is rudimentary.

In the literature atrophic kidneys are rarely referred to as being congenital anomalies. But it is rather assumed that the organs become atrophic due to causes operating after birth. Among the 660 cases of renal disease observed in the Mayo Clinic, as referred to above, five cases were found in each of which one kidney was atrophied to the extent that it was infantile in size, and without apparent cause other than congenital.

(References 1 and 24.)

7. Fetal Lobulation of the Kidney:

In embryonic life the kidney is divided into lobes, bounded by the renal columns, and indicated by grooves upon the outer surface. Nor-

mally in man the grooves become obliterated during the first year of life. (In the ox similar grooves are permanent.) In man this fetal lobulation may exist during adult life and is then considered a congenital anomaly. Such kidneys are usually normal in size and in function. No figures regarding the frequency of such occurrences could be found.

(References 12, 25, 27.)

8. Supernumerary Blood Vessels to the Kidneys:

Supernumerary blood vessels to the kidneys is a condition frequently seen. This depends on the migration of the kidney from the primary inception of the organ in the Wolffian body, which was exceedingly vascular; and upon the fact that in its course of development it could tap the mesonephron at any point. Hence, on this basis, we explain the variable, abundant and not infrequent anomalous, blood supply of the kidney.

Dr. Brewer (Ref. 8) states that in his investigations of the vascular anomalies of the kidneys he was surprised at the high percentage of cases in which such anomalies existed. And he recalls one instance in which there were five distinct renal arteries to one kidney.

In about 30 per cent. of the cases there is a separate and distinct, although comparatively small, artery leading to the anterior surface of the kidney.

(References 8 and 28.)

MALFORMATIONS OF THE URETERS.

In considering congenital malformations of the ureters the embryological development of this structure must be kept in mind. Referring to the figures and to the embryological development of the ureters we must carry along the following facts: 1. The early common cloacal termination of the rudimentary genito-urinary and intestinal tract and in normal cases their subsequent complete separation. 2. The primary origin of the ureter from the Wolffian duct which in the male represents the future vas deferens, ejaculatory duct, etc. 3. The early common opening of the ureter and Wolffian duct in the embryonic bladder and their later acquisition of separate openings, at first close together, but finally far apart.

With the above facts in mind it is clear that an arrest or a failure or an imperfection of development may have to do with a ureter either opening or intended to open into the intestinal tract, into the genital tract, into the bladder, or elsewhere usually in connection with some persistent remains of the Wolffian duct.

Types of malformations of the ureters:

1. Duplication of the Ureters:

Double ureters is a condition where the ureters are double along the whole distance from the kidney to the bladder. They may be double on one side or on both sides. Double ureters occur rather frequently as may be noted from the following reports:

Records from the London Hospital in London England show that in 2456 postmortem examinations 16 cases of double ureters were revealed, or 1 to 154 per sons examined. Among these 16 cases the extraordinary feature was the large preponderance of females over males; namely 13 females to 3 males. In 2 cases the ureters were double on both sides. In seven cases they were double on the left side only, and in seven cases on the right side only. Reference 2.)

Dr. William F. Braasch upon making a close study of the records of 660 cases of renal disease found 7 cases where the two ureters occurred separate along their entire course and leading into separate meati of the bladder. The meati being separated by about 1 cm. (Ref. 1 and 24.)

Dr. Werthein makes the following statement regarding the occurrence of double ureters: In 500 operations for carcinoma of the uterus double ureters have been found in 7 cases. Of these one case occurred with double ureters on both sides; in 3 cases double ureters occurred on the left side; and in three cases on the right side. (Reference No. 6.)

In case of supernumerary ureters where the duplications are complete, and where they occur on both sides, the normal ureters will usually enter the bladder in the usual places—at the proper angles of the trigone—while the extra ureters open in a line between them and the opening of the urethra. Furthermore, radiographs show that the upper pelvis of the kidney corresponds to the ureter opening nearest to the urethra: the extra ureter. Although this is the rule, exceptions occur at times.

The following table is a brief summary of my findings relative to the double ureter:

Reference	Subjects examined	Anoma. found	Right Side	Left Side	Both Sides
Dr. Furniss Ref. No. 6	——	13	9	4	—
Huntington Ref. No. 6	5000	5	—	—	—
Dr. Brewer Ref. No. 6	150	6	—	—	—
Dr. Werthein Ref. No. 6	500	7	3	3	1
London Hospital records Ref. No. 2	2456	16	7	7	2
Dr. Braasch Refs. 1 and 24	660	7	—	—	—

(References on the double ureter: 1, 2, 3, 6, 8, 12, 24 and 25).

2. Division, or partial duplication, of the ureters:

The ureter may be divided at any part of its course. The most frequent point of division, however, is at the upper portion of the ureter where two or more branches of the ureter leave the hilum of the kidney and unite into one ureter a short distance farther down (often however) this will not be a true ureteral division, but will represent the absence of a true pelvis with the union of extended infundibula instead.) Sometimes we find division of the ureter into two branches ending in adjoining meati. This division may occur along any part of its course, more often along the lower portion. Union of two ureters arising from normally situated kidneys, and merging at about the brin of the pelvis, and entering the bladder in a single meatus, may also occur. (References 1, 11, 12.)

A total of 660 renal cases dealt with at the Mayo Clinic showed 5 cases of division of the ureter, one case of double pelvis with two separate ureters joining a short distance below the

hilum, one case of 3 ureters leaving a single large pelvis at various angles of the kidney and uniting a short distance below, 2 cases of division of a single ureter at the brim of the pelvis, and each division entering separate meati on the same side, one case of union, at the brim of the pelvis, of the two ureters arising from separate kidneys. (Reference 1.)

3. Congenital ureteral stricture:

Ureteral stricture may be congenital or acquired. The latter is less frequent, and does not come under the scope of this paper. The former, however, will be treated here. The word "stricture" will be regarded in its wide sense, meaning any narrowing of the ureter, even up to complete impermeability, sharply localized narrowings as well as those which may include the whole or any part of the structure. Only scant information can be obtained from the medical literature regarding congenital ureteral stricture. All in all, 56 cases are definitely known to be recorded in the American Medical Literature. Three of the above 56 cases were met with at the Mayo Clinic at Rochester, Minn. Of the total of 56 cases, 25 occurred in males, 16 in females. While in 15 cases, including monstrosities and pathologic specimens, no mention of sex is made.

A study of the ages at which ureteral stricture is discovered shows that the defect in some cases is immediately incompatible with life, that in others it quickly developes to the stage of incompatibilty, that in still others it remains latent in its effects until in some way infection starts up, and then again in others it may exist unsuspected during life and is found only at autopsy after death from other causes. A very striking feature is the number of cases discovered in subjects under five years of age and in those over sixty years of age; at both extremes of life.

Of the above 56 cases of ureteral stricture 45 had to do with single, and 11 with supernumerary ureters. The left ureter was affected in 27 instances, the right in 17, both ureters in 10 cases, while 2 reports fail to mention the details in regard to location.

Location and results of ureteral stricture:

In some cases a portion of the ureter is wholly fibrous, while in others the ureter may be impermeable througout, and is then represented only by a fibrous cord—a functionless ureter (Teyssedre: These de Paris, 1892, reports eleven such cases). The further development of this defect leads to the absence of the kidney and of the whole or a portion of the ureter. In the 56 cases mentioned above, 8 showed the stricture as located in the upper third of the ureter, usually at or close to the opening into the renal pelvis; and 36 cases showed the stricture close to the bladder. One case showed the stricture at both the upper and the lower ends of the same ureter; and one case showed it at the upper end of one and at the lower end of the other. One case showed alternating with and without a lumen. In the great majority of cases the ureter, if present at all, reaches the bladder and the stricture is usually in or very close to that organ.

In form the stricture varies very much. It may be represented by a sharply defined narrowing, or it may take the form of a section with a length varying from ½ to 4 inches, with a lumen constricted to the calibre of a fine probe. The stricture may be passible or impasible.

The most important, and in their effects, the most far-reaching modifications of form are seen in the obstructions at the lower end of the ureter. In these cases the ureter usually reaches the bladder and most often ends there in a blind sack. This blind sack may be just beneath the mucous lining of the bladder, it may lie in the muscular layer of the bladder wall, or it may just reach the outer wall of the bladder. If the blind end is in the muscular layer and one examines the bladder from within either there will be no trace whatever of a ureteral opening, or in its place will be found a dimple, a shallow invagination of the mucous membrane. If the blind end is just at or in the outer layer of the bladder wall there may appear just above it a localized dilatation of the ureter which takes the form of a cyst just outside of the bladder. This external pocket may be large enough to compress the bladder, crowding in the posterior wall, or in a woman it may bulge the vesicovaginal septum.

Dr. J. T. Bottomley, referred to above (Ref. 3), reports a case where the cyst was as large as a hen's egg. In some cases, however, this localized cyst-like formation does not take place, but the ureter becomes dilated from the stricture upwards throughout its entire length. In cases where the ureters end just beneath the vesical mucous membrane a cyst-like protrusion of the mucous membrane into the vesical cavity occurs. This protrusion may range from the size of a small pea to one completely filling the bladder. The ureteral opening into these pouches may be bristle-like in size or it may be an aperture 2Cm, in diameter. These pouches, or cyst-like protrusions, are accompanied by ureteral dilatation. This, of course, would be expected when we consider that usually the protrusions are blind culde-sacs without an opening into the bladder. Occasionally communications between the protrusion and the bladder cavity occur. The communications are almost invariably by minute openings at the tip or at the side of the protrusion.

The contents of the protrusion is usually a clear fluid; it may vary considerably in color in shades of brown and yellow, and sometimes a muddy or cloudy color. (Ref. 3.)

Effect of ureteral stricture on the ureters:

If the obstruction is at the lower end of the ureter is usually dilated, thin-walled, lengthened, and tortuous. It varies in size from that of a pencil to that of a small intestine. It may be lobulated, showing windings and twistings, kinks and folds, and has been described as having "the appearance of a string of sausages." In such cases the wall on section is found to be thin and to show valve-like folds, which in places narrow the lumen. This may represent a persistance of the fetal type of ureter.

Hamann (Ref. 4) finds that spindle-shaped dilatations and tortuosities of the ureter are nearly constant in the fetus, and therefore normal at this early stage. (Byron Robinson, Anat. Anz. XXIV. 482-485, notes that all mammals possess ureteral dilatations and constrictions,

which are in his opinion, heritages from the Wolffian body, enhanced by environment, as erect attitude.) J. T. Bottomley (Ref. 3) mentions an unusual case in which an enormously dilated ureter filled the whole pelvis with its distended coils which pressed on the rectum, and on the other ureter.

When there is a double ureter, the two, tho usually in the same fibrous envelop, ordinarily follow separate paths. Often the dilated abnormal ureter is found to twine about the healthy ureter. One unique case appeared in which a much dilated right ureter opened into the bladder on the left side.

Effects of ureteral stricture on the pelvis of the kidney:

Here the effects are striking; for either an enormous hydronephrosis results, or else a most marked primary atrophy may result. Hydronephrosis, however, seems to be the rule. It may appear as a slight or moderate distension of the pelvis, or it may be present as an enormous cyst filling the whole abdominal cavity, with only remnants of the true kidney tissue in the wall of the cyst. Between these extremes many intermediate grades occur. Many cases occur with a marked degree of renal atrophy—one case, at least, being found where the kidney was of the size of a bean. This may be due to secondary atrophy, but it may also be primary and congenital. Dr. Bottomley in his observations of 56 cases of ureteral constriction (Ref. 3) found several cases where in place of the kidney only a conglomeration of cysts—several separate pockets—occurred. Whether these represented primary congenital defects or were the last stage of a secondary process is not apparent. Usually the kidney on the opposite side shows only hyperemia and compensatory hypertrophy in the uncomplicated cases.

Effects of ureteral stricture on the bladder.

The cystiform protrusions of the blindly ending ureter into the bladder may cause marked secondary pathological changes in the bladder, in the other ureter, or in the other kidney. The protrusion into the bladder of a constricted supernumerary ureter may block the opening of the healthy ureter of the same side. The pocket may be so large as to block the ureteral opening of the other side. In other cases it may wholly obstruct the vesical opening of the urethra, give rise to a distended, hypertrophied bladder, and set agoing the usual sequelae of retention of urine.

(References on ureteral constriction 3, 11, 12, 25, 29.)

4. Single ureter supplying a single kidney:

A report of only one such case was found. There was only one ureteral orifice into the bladder. The trigone was distorted; there being no angle on the right side. The left kidney and the left ureter, only, were present.

(Reference 6)

5. Single ureter dividing to supply both kidneys:

As would be expected such cases are very rare. The Medical Record, January 1915, reports a single case—the only case I noted. Here both the kidneys were present, but only one ureteral opening into the bladder could be observed, and this was on the right side. After injection with callargol the radiograph showed the pelvis of the right kidney filled, and about five inches from the bladder there was an offshoot toward the left kidney, indicating the presence of this organ also.

(Reference 8.)

6. Duplication of the Renal Pelvis:

The normal renal pelvis may assume any of a great variety of shapes. The individual calyces may be so large and so situated that they resemble separate pelves, particularly so when the calyces do not unite until well beyond the hilum. When, however, there are two distinct pelves within the hilum and each has its separate calyces and ureter, the condition must be considered as an anomalous duplication of the pelves. In the 660 cases of renal disease met with at the Mayo Clinic, as referred to above, there were 8 cases of duplicated renal pelves. In 6 of these cases a division of the two halves of the kidney was externally visible, varying from a slight depression, to a distinct area of demarcation. This division was furthermore indicated, in cases of true duplication, by the fact that the individual poles of the kidney had in the main a separate blood supply. Thus for practical purposes the kidney might well be considered as made up of two distinct kidneys, which would permit of separation if necessary, W. J. Mayo has performed the bisection of three such kidneys successfully. In one case duplication of the pelvis with separate ureters was found on both sides, Fig. 6, plate 5. On the right side the two pelves were united by a narrow calyx. Usually, however, the pelves are entirely separate.

(References on the duplication of the renal pelvis 1, 2, and 24.)

MALFORMATIONS OF THE BLADDER.

1. Absence of the bladder:

This anomaly is of rare occurrence. The bladder may be very small, the urine passing almost directly into the urethra. The bladder may be separated into an upper and a lower portion by a circular constriction. It may be completely divided by a vertical septum into two lateral portions. Diverticula of the wall of the bladder are sometimes found in new-born children. Partial or complete closure of the neck of the bladder may occur. This may lead to hydronephrosis, or the urine may be discharged through the open urachus.

2. Extroversion of the bladder is one of the most frequent malformations, and may occur in either sex. It presents several varieties:

(a) The umbilicus is lower down than usual, he pubic bones are not united at the symphysis, the pelvis is wider and more shallow than normal. Between the umbilicus and pubes the abdominal wall is wanting. In its place is a projecting, ovoid mass of mucous membrane, in which may be seen the openings of the ureters. The penis is usually rudimentary; the urethra is an open fissure (epispadias) the clitoris may be separated into two halves. The ureters usually open normally; sometimes their openings are displaced or are multiple. They may also be dilated.

(b) There may be a fissure in the abdominal wall, filled up by the perfectly formed bladder.

(c) The umbilicus may be well formed, and there is a portion of abdominal wall between it and the exstrophied bladder.

(d) The external genitals and urethra may be well formed and the symphysis pubis united, while only the bladder is fissured.

(e) The genitals, urethra, and symphysis may be well formed, the bladder closed except at the upper part of its anterior wall. The bladder may be entirely or in part inverted and pushed through the opening in the abdominal wall.

3. Remains of the Urachus:

The urachus normally remains as a very small canal, 5 to 7 cm. long, with a small opening into the bladder, or entirely closed at that point. If there is a congenital obstruction to the flow of the urine through the urethra, the urachus may remain open and the urine pass through it. Or the bladder may present, even in the adult, a slender distention reaching close to the umbilicus as the result of a persistent urachus. (Reference 12.)

(References on the congenital malformations of the bladder; see especially No. 12 and also 11, 13, 14.)

MALFORMATIONS OF THE URETHRA.

The urethra may be impervious or may open at the root of the penis. The congenital opening of the urethra on the under side of the penis, or into the vagina, is known as hypospadias If the urethra opens on the upper side of the penis we have a condition known as eqispadias. (These as well as other malformations of the external genitalia fall, more properly under the reproductive organs and will therefore not be treated of here.)

The urethra may be partially obliterated, or a stricture may exist in some part of the canal.

There may be two or more openings of the urethra. Or the canal may be dislocated so as to open in the inguinal region.

A number of cases have been reported in which a valve in the urethra has led to hypertrophy of the bladder, dilatation of the ureters, and hydronephrosis.

Owing to its narrowness, its greater length and peculiar connections with the internal generative organs, the male urethra is much more liable to disease than is the urethra in the female. (References 12, 7.)

RARE AND EXCEPTIONAL CASES OF DEFORMITY IN THE URINARY ORGANS.

A few cases of rare deformities of the urinary organs are reported. These resemble one another and the following description is typical: the condition is incompatible with life—hence these are infant cases. There is a congenital absence or deficiency of the abdominal muscles. The summit of the bladder is firmly connected to the umbilical scar; the bladder thus occupies an abdominal or fetal position. The wall of the bladder is often from ¼ to½ inch thick. Its cavity is dilated. The ureters are often dilated to the size of a small intestine of an adult and remarkably tortuous. The ureters are folded upon themselves, usually this folding occurs about half way down, and the contiguous surfaces of the folds being firmly adherent to each other. The orifices of the ureters into the bladder will admit a blowpipe with ease, and they are usually not obstructed elsewhere. Usually no stricture of the urethra occurs. The kidneys may have a normal appearance viewed externally, but upon section they show inflammation.

The association in cases like the above of deficiency of the abdominal muscles with a hypertrophied bladder occupying a fetal or abdominal position, and accompanied by dilatation of the ureters, is not a mere coincidence. But the deficiency of the abdominal wall and the high position of the bladder are alike dependent on the arrest of development during intra-uterine life. In the fetus the bladder is placed on the anterior wall of the abdomen, and it is not until the pelvic cavity develops that the organ sinks from its earlier place. The hypertrophy of the bladder and the dilatation of the ureters in cases like the above we may consider as secondary malformations, appearing as a result of the deficiency of the abdominal muscles, and as a result of the high position of the bladder. The bladder, lying high —due either to its connection with the anterior wall or to its connection with the umbilical scar—is unable to contract downwards and thus to empty itself completely. In its efforts to contrast it becomes hypertrophied and dilated; urine accumulates and causes backward pressure in the ureters, and leads to their dilatation. There is usually present no obstruction to the outlet of the bladder, while, if such obstruction existed, it would account for the hypertrophy of the bladder and other deformities.

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THE OBLIGATION OF MEDICAL ORGANIZATIONS IN PUBLIC HEALTH EDUCATION.*

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The medical profession came into being to keep people well. It did not, as commonly supposed, come into being to cure disease. Public health activities and public health education of the people can never rest for long at greater heights than the level of average human health intelligence. It follows that as this health knowledge of the average person increases the necessity immediately presses that we who compose the rank and file of the medical profession must by that very necessity become aggressively active in the attainment of greater heights else we be distanced in the march of progress and thereby forfeit our leadership. It is our bounden duty to inculcate in the minds of the people by systematic effort the progress that is being made and to impart this knowledge in the centers and outskirts of communal life.

There can be no doubt but what vast strides are being made in public health education and conservation. This progress has been so rapid that it is startling. A wonderful spirit of public interest is being manifested. Today we find the organized profession practically at a dividing of the ways. The realization is apparent that unless we become aggressively and tellingly active we will be outdistanced. The need presents—are we to continue as leaders or shall we automatically, by our inertia, our failure to meet up to public demands, relinquish our prestige and leadership and by a manifest complacency become trailers in these public health movements. The hour for deciding our future is veritably at hand.

Our past record reveals opportunities that we failed to grasp. The majority of our organized profession have been too greatly concerned with their intimate professional problems, thereby neglecting to interest themselves in progress that is being made by the public at large. True, we have been and are splendidly organized for our scientific needs, but are woefully unorganized when it comes to matters concerning our relationship with our fellow men. We have a large numerical strength but a negligible influential power. As an organization, we have neglected to cultivate and establish a public confidence. We have permitted misconstruction of our motives to go uncorrected. As an organization we play but an inconsequential role in the progress that is being recorded along the pathways of industrial, commercial and social life.

But this is not the occasion for the discussion of that feature of our organizational efforts. I cannot pass it by, however, without this comment—unless the next two years witnesses the expenditure of ninety per cent. of our official effort and energy for the solution of the problems of public health and the health education of the people together with the assumption of a decidedly manifest leadership in these matters we might as well resign ourselves here and now to the fact that as far as our medical societies are concerned, their scope and influence is limited solely to our own scientific interests and rewrite our constitutional preamble and object acordingly.

Shall we permit the solution to rest with the lay student and accept his leadership and comply with his recommendation? Are we to acquiesce to his solution and have forced upon us State medicine, compulsory health insurance, Federal control, or some similar scheme in which we will find ourselves consigned to a role of skilled or expert workmen? Or, shall we here and now determine and set forth that we, the organized profession of medicine will assume the leadership and develop this new field in such manner and by such methods as will command recognition, exhibit developmental stability and inspire a confidence that will cause all others to acknowledge our position and conform to our pronouncements and recommendations? To the attainment of that end I feel that we should pledge our allegiance and support and expend our energy. To do so we must motivate our officers, delegates, councils, societies, and members with a clear vision of the goal sought, with the need of collective co-operation, with the necessity of concerted action. There can not, must not be any division of effort or isolated groups of activity. We must, after due deliberation, determine upon a broad plan of activity that in-

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cludes many ramifications and which correlates all existing special organizations, utilizes their influence and resources in developing the field into which we mobilize our every available force and procliam our purposes for the education of the public and thus cause individual, state, nation, employer and employe, citizen and official, student and teacher to accept and recognize our leadership in a movement that is solely concerned with their welfare.

He who has heeded the trend of events and the avenues of activity long which the public and governments have spread out in dealing with the health of the people cannot, with honesty affirm that we are needlessly concerning ourselves with problems that are of minor moment and of not sufficient importance to demand our most active consideration and effort. He who affirms that these are problems which concern only the far distant future and several generations hence knows not whereof he speaks and has remained too far aloof from the progress of his fellow men. Unless we at once and in full force take to the field and assume an aggressive role, the immediate years will witness government or lay initiative and the establishment of some form of health conservation movement in which we as physicians will receive but scant recognition and in which the aspiring, undesirable, progressive doctor will secure a governmental backed authority or position that will be repulsive and embarrassing. One need but investigate that which already exists to become awakened to the extent of such impending dominancy. Just this month the Towner Bill providing for maternal aid was before Congress. This past week I was given an inkling of what is being sought for the ex-service men of the World's War—to illustrate—our government is now providing hospital and medical care for ex-service men for any disability that was incurred in or as the result of their military service. Such claims now reach over 700,000. The lines are not closely drawn. It is now being contemplated to provide hospital and medical care for all ex-service men irrespective as to the cause or instance of their disability and also for any new acute or chronic ailment that may overtake them—this in lieu of future pensions—the government to assume as a reward for their service, the safeguarding of their health and care for whatever physical ailment that overtakes them. That means 4,000,000 government wards for whom medical and hospital care will be provided. Do you realize what that means and entails? No, it is not a wild dream for it is already receiving serious consideration. If you will but investigate you may verify this assertion. That action taken, it is but a short step to include the dependents of ex-service men which will add about twelve million more medical charges of the government and when Uncle Sam demonstrates his willingness to care for one sixth of our population we are not speculating in vague possibilities when we assert that the remaining five sixths of our population will become merged in part or as a whole with these medical beneficiaries of our National Medical Bureau or Department. It is a threatening reality.

But I must further limit my introductory observations, although one can continue far into the evening in setting forth pertinent facts and actualities that indicate a most threatening situation that surrounds our profession. I fully realize that I have but topped the crest of the waves that are churning our medical seas and by so doing, I am not presenting the force that lies behind. I attempted but to indicate their potential eventualities to better cause our members to visualize the need for thought, investigation, and concerted action.

What is the role our medical organizations must assume in the Education of the Public in Health Matters? Would that we were gifted with a prophetic vision in order that the more definite our pathway might be.

We must strive for and bring about:

a. A greater public confidence.
b. The establishment of unimpeacable motives and their recognition and acceptance by the public.
c. Governmental recognition from Washington down to every township.
d. A determination of the needs and demands of the public to conserve and enhance the health of the individual.
e. The construction of a plan of applicable efficient medical services for all our fellow men in all stations of human activity.
f. A higher type of medical practitioners.

How shall we accomplish these ends? I cannot go into details and thus perforce for this occasion generalities must suffice.

1. Taking of definite steps by this Council to enroll the undivided co-operation of all the members of the American Medical Association and its constituent units in support of such a campaign. Whatever one's individual opinion may be, I am unwilling to concede that the universal organization of the profession cannot be accomplished. On another occasion I have asserted that the profession will wholeheartedly support such a movement if it is properly pre-

sented and individual aggrandizement is obviated. I am more than ever convinced that such mobilization can be accomplished. Delay in doing so must not be permitted; immediate provision must be made to attain this within this year.

While this is being achieved coincidentally there must be witnessed:

1. A revamping of our medical courses and hospital internship requirements together with a readjustment of State Board standards and enforcement of medical practice acts.

2. Legislative activity that will manifest its influence in national and state governing bodies to obstruct conflicting and obstructive legislation that is not consistent with the policies that we seek to establish while at the same time enlightening our law makers in regard to the principles which we deem paramount in importance for the best interests of the health of this and future generations of our citizens.

3. An educational publicity campaign that will acquaint the public with complete and frank statements as to what is being done for the conservation and enhancement of their physical welfare and to refute the unwarranted claims of all others who seek to establish their false and unreliable tenents. Such a campaign to be wide in scope and which employs advertising space in the form of good will and educational advertisements, public meetings, national, state and local conferences and public discussions with allied organizations such as the dentists, druggists, United States Public Health Service, Red Cross, and the other already established valued health organizations. The issuance of a paper or magazine, daily or weekly devoted to the publishing of health news, so-called, and the educating of the public by imparting dependable and accurate information and instruction.

4. Arousing the profession to the need of better and more scientific practice, causing them to live up to the accepted and proven standards of today and thus increase their efficiency and ability to meet the demands of the public by a systematic course of post graduate work that is immediately available at their very door steps. This in the form of Regional Clinic Teams, similar or modified from the plan now pursued in Michigan by the State Medical Society.

5. Providing for sections on Public Health in our National, State and county medical organizations to which representative and local interested lay persons are eligible for membership and whose enrollment should be solicited. The direction in which such sections are to devote their activities is almost self apparent.

Thus in a very general way in which we are compelled to but enumerate do we set forth how the organized profession may assume and hold a leadership in the education of the public in health matters. The unthinking and conservative may readily construct plausible and seemingly tenable refuting objections. However, when entering upon a more detailed discussion we are certain that their contentions can readily be discredited. It all hinges upon organizational effort and the thoroughness with which it is done the surer will be the success and achievements of the movement. Five full time men under a directing head can, if they are of the proper caliber, bring this about. Financial support and means are available for the asking. It rests with this Council and the House of Delegates of the A. M. A. to determine whether or not such a plan shall be adopted. Whether or not we shall lead in such a welfare movement or let the public go ahead while we remain content to ignominiously bring up the rear and become passive participants subject to the commands of lay directors.

I am designedly omitting comment upon Compulsory Health Insurance, Community Clinics and Hospitals, Model Health bills and similar propositions that have and are being advanced as solutions for the demands that the public is making and the criticisms that are being recorded against our present medical provisions and relationship. In regard to all such proposals I am inclined to the opinion that they are only partial solutions of the problem that confronts us. That they in no way meet the full demands or needs of the people as a whole or the doctors as individuals. Their enactment and institution would be but temporizing measures which would not only delay but complicate the final attainment of a universally acceptable plan. We cannot afford to temporize. We dare not play with uncertainties. We must not heedlessly and inadvisedly court even partial failures. We certainly must not jeopardize our future by pursuit of inadequate policies and by their failure relinquish the public's confidence in our ability to point out the way and attain that which it now seeks and from whom we are receiving a call to acquit ourselves of the demands it now is making upon us.

There is nothing profound, nothing miraculous about the medical profession. It is but the result of the refinements of civilization, human progress and a human desire to be free of suffering. It differs in few measures with other undertakings in life. It can be made

what we make it. We must approach our problems with the same faith that inspires the inventor, the educator, the worker, the explorer. We must pursue a course of organized medical unity the same as organized unity has been necessary in all performances of mankind. It must be a unity that will establish and hold for all time a public confidence in our honesty and ability that will inspire health intelligence among our fellow men. By so doing we shall build for the good of all mankind.

INFANTILE DIARRHOEA.*

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The subject of infantile diarrhoea is scarcely apropos of the present season or even of our past summer. Its frequency, however, in general practice and its seriousness warrant its consideration. There are probably as many opinions on the subject as there are pediatricians and schools, while in a general way there is quite a concurrence of opinion on its main features.

Our consideration here is directed toward the infantile diarrhoeas as of the fermentative type and infectious type omitting those of a purely nervous and mechanical origin and those occurring as a symptom of meningitis, otitis media and what not.

The terms fermentative and infectuous are scarcely differentiating and defining terms in themselves, for in each case micro-organisms and bacteria are operative agents. By the fermentative we think broadly of those diarrhoeal conditions in which there is an abnormal growth and activity of micro-organisms on the intestinal contents. This implies an abnormal food decomposition with the formation of toxic and irritating end products which irritate the intestinal mucosa, aggravate peristalsis and cause a diarrhoea. The offending organisms in the fermentative diarrhoea need not be abnormal ones or ones foreign to the intestinal tract. This form of diarrhoea is the more common one seen.

By infectious diarrhoea we mean those cases where there has been a distinct invasion of the intestinal wall itself and where distinct pathological lesions have been established. In these cases the intestinal contents become a secondary rather than a primary operative agent, as was the case in the fermentative type. As conditions of this type, we have the cases of ileocolitis, entero-colitis, dysentery, etc.

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Considered etiologically from the standpoint of micro-organisms, either type of diarrhoea would suggest a rather intimate knowledge of the intestinal flora and bacteriology of the stools but unfortunately our knowledge along these lines seems quite limited, especially as regards very conclusive evidence regarding any specificity that might be attached to the various organisms. We know at least that in the fermentative diarrhoea the colon and lactic acid bacilli play an active part in the etiology. In the infectious diarrhoea our knowledge regarding causative organisms is more complete for here we find the dysentery bacillus, the gas bacillus and the streptococcus as the greatest offenders, while occasionally the colon bacillus, the bacillus pyocyaneous and others may play a part. We consider the bacillus of dysentery and the streptococcus together, for the treatment in such cases is the same as we shall see later; and then the gas bacillus group, for which the treatment is different.

Aside from the causative organisms, we attribute a big etiological factor to the summer season but this is a more indirect influence than is probably always realized. The warm weather, on account of its depressing effect, lowers the individual's resistance and permits a more effective operation on the part of the micro-organisms. Then, too, the chances of introducing a more virulent and prolific strain of micro-organism are enhanced by the warm weather when infants' food, either within or without the body, furnishes more favorable culture media than it would in cooler weather. Thus it can be readily understood that the so-called "summer diarrhoea," which is in reality the fermentative type, occurs in the summer months and is rarely seen in the cooler months of the year.

In this type the patient will show little or no tissue pathology and, aside from a slight injection of the intestinal mucosa, there are apt to be no lesions whatever. Secondary and complicating infections may and often do arise elsewhere in the body, but these are the result of the body's debilitated state and not of any direct bacterial extension since the organisms do not enter the tissues or the blood stream. The activity is almost wholly limited to the intestinal contents where the carbohydrate elements are attacked with the formation of low acids, namely, formic, acetic, butyric and succinic, and usually some formaldehyde. These products produce the intestinal irritation, increase peristalsis, hinder food absorbtion and develop a state of acidosis.

In the infectuous diarrhoea the picture is dif-

ferent. Here the organisms as primary invaders enter the tissues and they become the seat of activity in contrast to the intestinal contents in the fermentative type. These cases, infectuous ones, show a distinct intestinal pathology. This may consist of a hyperplasia of Peyer's patches, a catarrhal condition of the intestinal mucosa, a psuedomembrane or even distinct intestinal ulcers. These are the cases of ileo, colitis, entro-colitis, etc.

The fermentative diarrhoea is apt to be confounded with but two conditions, a simply indigestion or a mild infectuous case. The differentiation should not be difficult as we shall see later. A typical fermentative case is an acute one with an early hyperpyrexia of 104 to 105 degrees, depending on the degree of intestinal absorption. This temperature rarely lasts more than three to four days but a moderate elevation may persist, depending on the severity. The appetite is usually impaired, vomiting is very unusual, there is frequently abdominal distention and invariably a loss of weight. The stools are the tell-tale of the condition and they obviously depend on the predominating food elements concerned in the intestinal process. There are two distinct types of stools in fermentative diarrhoea—one of a carbohydrate activity and one of a protein. When the activity is on carbohydrates, the stools are green, acid in reaction and irritating. There may be and usually are some fat curds, there is very little mucous and no blood. This is the common form of fermentative diarrhoea.

When, however, the activity is proteolytic, the stools are yellow or brownish, alkaline in reaction and very foul. They rarely show fat curds or mucus and never blood. Occasionally these stools have a musty odor.

The border line between simple indigestion and fermentative diarrhoea is an arbitrary one. The differentiation is made on the severity of the symptoms and the existing evidences of fermentation noted above. Broadly speaking, the constitutional symptoms are more severe, the temperature higher and the toxic absorption greater in the fermentative condition.

The differentiation between a fermentative and an infectuous diarrhoea will be obvious after a consideration of the latter condition. In it we are again dealing with an acute condition of abrupt onset with rarely any premonitory symptoms although ones of simple indigestion may precede. There is a hyperpyrexia usually of 100 to 102 degrees, lower than the temperature of the fermentative type, you will recall, but of longer duration and with no tendency to fall but to continue throughout the active course of the disease. Blood and mucus appear early in the stools, with microscopic pus from the outset soon becoming macroscopic. There is an excessive number of stools, 10 to 15 daily, usually alkaline in reaction. Vomiting rarely occurs and anorexia is a constant symptom. The abdomen is usually depressed and there is always to be expected a degree of toxic absorption.

This diarrhoea, when accompanied with symptoms of cerebral irritation, must often be differentiated from a meningitis. A lumbar uncture will decide the issue at once.

Probably the most difficult differential is that of infectuous diarrhoea and intussusception. The latter, as you know, has an onset ushered in with abdominal pain and distention, blood appearing later in the attack, little or no loss of weight, the earlier appearance of shock and the palpation of a tumor either through the abdominal wall or preferably per rectum and usually at the ileo-caecal junction.

The prognosis in either a bad fermentative or infectuous diarrhoea case should be guarded. However, if a child survives the first three or four days of a fermentative diarrhoea, its chances are good for an ultimate recovery. Those cases where the food preponderance is carbohydrate also give a better prognosis. In the infectuous cases death usually occurs during the second week. The serious complications in either form of diarrhoea are toxic absorption and acidosis and it is these that call for heroic and active therapeutic measures.

The treatment of these diarrhoeas resolves itself into three forms, viz.:

1. Drug.
2. Dietetic measures.
3. Other means.

The drug treatment is not mentioned first on account of its relative importance for, if such were the case, it would be taken up last. It would, however, be a fallacy to leave the impression that drugs are of no avail in these conditions, nevertheless their value is often overestimated as in the fermentative type where a baby rarely needs any drug.

An initial purgative, castor oil or calomel, is usually indicated in every case. Where, however, the darrhoea has been thoroughly established, this is scarcely needed since an irritated bowel will effectually empty itself.

The intestinal antiseptics can scarcely be condoned for any one sufficiently active to kill the intestinal organisms will likewise very efficiently kill the baby. Furthermore, such drugs are not selective in their actions and they would

destroy not only the invading micro-organisms but the antagonists as well.

Bismuth salts may allay the acute symptoms but a judicious use must be made of even these ordinarily harmless agents. They obscure the stool picture and interfere with intelligent feeding. Their administration in cases where the intestinal tract is not thoroughly emptied is decidedly contraindicated since it facilitates the absorption of toxic products and an extreme degree of acid intoxication favored. When used, the subcarbonate is preferable to the subnitrate to avoid nitrate poisoning, several cases of which are reported. Bismuth has a more apt indication in the infectuous type than in the fermentatime.

Theoretically opium is contraindicated on account of its effect on peristalsis and there is probably too great a willingness to use it when often hydrotherapy might do, that is, in cases of abdominal pain and tenesmus. In severe cases, however, opium in the form of paragoric or Dover's Powders serves a useful purpose.

The use of 2 per cent. silver solutions in rectal and colonic irrigations is helpful in persistent cases of the infectuous type but if ineffectual after two to three days, they should be discarded on account of their irritative effects.

Chloral and bromide are very useful in cases of extreme restlessness. Infants have a high tolerance for these drugs whose effects are usually marked and beneficial.

Symptoms of collapse and shock call for their ordinary stimulative treatment and for these infantile patients there are no better drugs than caffeine—sodium—benzoate, camphor and strychinine.

As yet no efficient sera have been marketed for use even in infectuous cases.

Probably the most important type of treatment in any of the diarrhoea cases is the dietary and since this varies so with each type of case, they will require separate discussion. They agree in that every acute case of diarrhoea should have a 12 to 24 hour starvation period. Infants can stand starvation well provided the body fluids are maintained. The length of starvation must, however, be guarded in those cases where the bacterial activity is proteolytic for the intestinal secretions are protein and with a prolonged starvation period these secretions would furnish favorable culture media for bacterial activity, the condition to be avioded.

Obviously a change of food means a change of intestinal media and a change in micro-organisms, and this is desired result. In the fermentative diarrhoea with green, acid, irritating stools, the carbo-hydrate activity is evident. It is reasonable, therefore, to give a milk low in sugar to arrest the fermentation. If with this a high protein food can be included, much will be gained since the end products of protein digestion are alkaline and the intestinal acid condition will tend to be neutralized. Diets of choice in such cases would be skimmed milk mixtures, albumen milks or buttermilk. The protein formula of Finkelstein being originally 2.5 per cent. fat, 1.5 per cent. sugar, 3 per cent. protein, and the marketed albumen milks having practically the same formula, would be desired diets. Where, on the other hand, in fermentative diarrhoea, we have yellow, alkaline, foul smelling stools, the activity is proteolytic and the protein medium should be changed. Such cases do well often times on cream mixtures with relative high fat and carbohydrate percentages. Fortunately, however, these protein cases are relatively rare.

The dietary procedures in infectuous diarrhoea are somewhat different and are determined primarily by the type of micro-organism concerned in the condition, and not by the food elements of the diet. For sake of determining treatment we establish the offending organisms in two groups: the dysentery bacillus and streptococcus in the one and the gas bacillus in the other. The dysentery bacillus seems to be far more prevalent as a causative agent than any of the other bacteria. This and the other organisms of this group thrive well on either a carbohydrate or protein diet, but from the carbohydrates, which they attack and utilize first, they produce harmless products, whereas, from a protein medium, the end products—largely low grade acids—are exceedingly toxic and irritating. Iu such a case, with the prevailing organism the dysentery bacillus, the outline of treatment from a dietary standpoint suggests itself, viz., a relatively high carbohydrate diet to furnish a constant medium of that type and encourage the production of inert end products and delay or prevent the bacterial action on the protein contents. This type of case illustrates the deleterious effects apt to be produced by a too long withholding of food or protracted starvation period.

In such a procedure the intestinal secretions only remain as a medium and since these are albumunous in character the development of undesirable products would be facilitated.

A desired form of carbohydrate in such cases is one slowly broken down—thereby maintaining a carbohydrate medium over a longer time with a minimum of food to be digested. Lactose which most effectually serves this function and given in 4 to 7 per cent. solution will remain in

the intestinal tract longer. This solution will suffice for the first day's feeding to be augmented the following day with about 1 per cent. barley starch and the third day to have added about one-half strength skimmed milk and so on.

The foregoing is not intended to create the impression that protein should be withheld entirely—for this element is necessary for growth and to prevent the wasting of body proteins but it should be held to percentages well below the carbohydrate content of the food; it has been determined that from .5 per cent to 1.25 per cent. protein is sufficient to maintain the balance of metabolism.

Colonic irrigations of sugar solutions are scarcely worth their effort since the amount absorbed is only a minimum.

Now we shall consider the gas bacillus type. This organism thrives on a carbohydrate medium and where there is little or no lactic acid present—the presence of actic acid or organisms producing it immediately inhibits the growth of the gas bacillus. Such cases are an indication for the lactic acid or buttermilk mixtures, a typical buttermilk mixture containing about .5 per cent. fat, 10.25 per cent. sugar and 3.5 per cent protein. Here the caloric requirements are readily satisfied and the relative percentages the ones to be desired.

The question now arises as to the methods of determining with which group of organisms we are concerned in a given case. Bacteriological methods readily solve the problem but unfortunately these are scarcely always practical in private practice. However, the vast majority of infectuous cases are of the dysentery type and, if by any means we can eliminate the gas bacillus, this point is verified. Fortunately the gas bacillus test is comparatively simple, consisting merely of boiling for three (3) minutes a portion of the stool in a test tube of milk, corking the test tube and incubating for 24 hours. If the gas bacillus be present the casein will be coagulated and full of holes and with a smell of rancid butter due to the butyric acid formation.

Probably the most practical means of determining the type of organism, tho highly unscientific, is to try the carbohydrate feeding of the dysentery type; if the baby "blows up," so to speak, becoming sicker and with greater hyperpyrexia, it is safe to assume that the other type of treatment is indicated and the dysentery bacillus in that case is eliminated.

Of almost equal importance with the dietetic treatment is the treatment composed of means other than dietetic or drug in these diarrhoeal conditions. These measures, as we shall see, are directed more toward the distressing complications which invariably arise to a greater or less extent in practically every case of diarrhoea. I do not refer to the hydrotherapeutic measures indicated in the hyperpyrexia, or the cool colonic irrigations for the same symptom, although these measures are included among those of this class and serve a very definite and desired purpose. I refer to the treatment of dehydration, intoxication and acidosis of these diarrhoeal conditions.

The advantages derived from the treatment of these conditions, to be outlined later, will be best appreciated when we consider what has been taking place in the body of the young patient. There has obviously been a rapid depletion of the body fluids—mechanically, thru the rapid and frequent evacuation of the bowels, and by the process of osmosis to to a change in the relative tonicities of the blood and tissues and intestinal tract.

Furthermore, the direct bacterial invasion of the tissues, in the infectuous diarrhoea, causes a rapid loss in the tissue glycogen of the body.

The development of acid products causes either a real or relative acidosis with a depletion of the alkali reserve of the blood and thus further organic damage to the patient. Aside from the objective symptoms of acidosis; viz.: stupor, acetonuria and air hunger, the degree of the condition can now be accurately determined, even in infants, by a determination of the carbon dioxide tension of the alveolar air. (The method and work of Howland & Mariott)

In a general way it is a counterbalancing of the three foregoing conditions which demand heroic and active treatment, viz.:

1. Supplying fluid.
2. Re-establishing the body glycogen.
3. The neutralizing of the acidosis and establishment of the alkali reserve of the blood.

The methods of supplying fluids to the patient are comparatively many. The infant should have as much fluid in quantity as totals its ordinary amount of daily food. The giving of fluids by mouth at comparatively short intervals in many cases provides the necessary amount. However, in those nervous and irritated cases with marked gastric irritability the retention of fluids by mouth is almost impossible due to obstinate vomiting.

The rectal instillations are often effective but the already irritated rectum and bowel is frequently more ready to expell than to retain, but even at their best the enteroclyses and proctoclyses are scarcely able to supply the needed amount of fluid.

The hypodermoclysis by supplying fluid under the skin is much in vogue and, in spite of its quite marked disadvantage, viz., that it allows only limited amounts of fluid to be given, especially in children, it is painful and the absorption relatively slow.

For most cases the above methods will suffice but in the extreme case even more energetic methods are necessary and in this connection the intraperitoneal method of giving fluids evolved by Dr. Blackfan, of Baltimore, some few years ago serves a most useful purpose. This method is rapidly acquiring a wide use and the striking advantages warrant such a use. By this method of introducing fluids, usually normal salt solution, directly into the peritoneal cavity a relatively large amount, from 150 c.c in the smallest infant, to 700 c.c. in the larger ones, can be given. The procedure entails only a minimum amount of pain, permits of rapid absorption and can be repeated in from eight to twelve hours. The technic is simple—being scarcely different from that of hypodermoclysis. The disadvantages are more apparent than real and anticipating a suggestion of peritoneal infection, I might say that in a recent series of 100 unselected cases at the Children's Hospital of Philadelphia, in which I had an opportunity to observe this method closely, there was not one case of peritoneal infection. A large number of cases were nearly moribund when first seen and of about a dozen such cases brought to the autopsy table none showed even any injection of the peritoneal or intestinal vessels. This method is especially favored in most cases by the dehydrated and sunken condition of the abdominal wall. The fluid amount and frequency of injection being limited only by the amount of abdominal distention. These methods are directed toward the control of body fluids and to combat the dehydration.

Regarding the restoration of tissue and blood glycogen, the treatment offers one course effective and that is the intravenous injection of glucose, a 2 per cent. solution usually being used. The question of intravenous injections in infants is no simple matter if considered in the light of such a procedure in adults. The infant's veins can scarcely be called accessible with ease. Here again the methods would seem heroic and energetic for the only practicable accessible mode for intravenous work in infants is the longitudinal sinus through the anterior fontanelle. This procedure in the bad diarrhoeal cases is now becoming routine since this route is much in vogue for antimeningococcic sera injections and in the arsenical preparations for syphilis.

Both the foregoing procedures will in part influence any existing acidosis but some more direct applications are necessary for the establishment of the alkali reserve of the blood and the neutralizing of the acid products. Sodium bicarbonate solutions have been widely used in this connection, usually being given by mouth or rectum. These routes are scarcely available in many cases and even when they are, the effects of the soda are not always as desired. The intravenous and subcutaneous injections have proven more effective in these cases. The production of sterile sodium bicarbonate has presented no small problem in general practice. Many men, to their sorrow, have sterilized their sodium bicarbonate solutions by boiling for subcutaneous injections and have produced a widespread and severe slough about the area. The cause of this is obvious since the boiling produced sodium carbonate which is extremely irritating. In institutional work the preparation of sodium carbonate in this way is done and then CO_2 gas is passed through the sterile solution reconverting it into the sodium bicarbonate. Since this treatment by intravenous or subcutaneous soda is indicated in only the rare and extreme cases, I have found that in general work the preparation of sodium bicarbonate solution with sterile water and a chemically pure sodium bicarbonate removed from a new package with a sterile spatula is justified and in a series of personal cases no infection was developed by such a method.

This in a general way concludes the subject of infantile diarrhoea as we usually see them.

In conclusion I should like to make it clear that I am not making a plea for the universal use of interperitoneal salt solution or of employing the route of the longitudinal sinus for glucose injections in all diarrhoeal cases, but in the light of recent investigations, the methods are, on the basis of their therapeutic value, justified in the severe cases. The mild cases seem to recover by any logical treatment and apparently from many instances of illogical procedures but, after all, it is the severe case which creates our mortality and any therapeutic measure is commendable which lowers our infant mortality.

THIRD SESSION

May 26th, 1:15 P.M.

Board of Commerce Auditorium

1. Election of Officers.
2. Present Status of X-ray Therapy.
   V. M. Moore, M.D., Grand Rapids.
3. General Indications for the Use of Therapeutic Pneumothorax.
   Herbert M. Rich, M.D., Detroit.

   Abstract of Paper for Discussion.

   Fundamental reasons for the adoption of this method of treatment. Clinical conditions in which it has been found useful. Dangers and limitations.
4. Vaccine Treatment of Asthma.
   A. D. Wickett, M.D., Ann Arbor.
   Cecil Corley, M.D., Ann Arbor.
   J. T. Connell, M.D., Ann Arbor.

   Abstract of Paper for Discussion.

   I. Introduction.
   II. Selection of Material for Vaccine.
   III. Preparation of Vaccine.
   IV. Dosage.
   V. Case Reports.
5. Measure to Further Reduce the Mortality of Diphtheria.
   F. M. Meader, MD., Detroit.

   1. The ratio of cases to deaths since the use of antitoxin has become general has decreased to a certain level below which in recent years it has been impossible to go.

   2. Suggestions as to why deaths from diphtheria occur:

   a. Delay in diagnosis.
   b. Delay in administration of antitoxin.
   c. Presence of a powerful toxin producing organism.
   d. Clientelle ignorant of the importance of early diagnosis.
   e. Children of clientelle not immunized against diphtheria.

   3. A large number of susceptible children exposed to infection.

   4. Immunization of susceptibles by the use of toxin antitoxin.

   a. Experience in certain foreign cities.
   b. Experience in New York City.
   c. Experience in Detroit.

   5. Recommendations.
6. A study of 62 Cases of Mitral Stenosis.
   Walter J. Wilson, M.D., Detroit.

   Abstract of Paper for Discussion.

   Age incidence. Etiology, Diagnosis. Symptomatology. Complications with special reference to arryhythmias. Treatment. Illustrated with lantern slides.
7. Digitalis Therapy.
   J. B. Whinery, M.D., Grand Rapids.

Tentative Program of the Annual Meeting of the MICHIGAN PUBLIC HEALTH ASSOCIATION

To be held in conjunction with the annual meeting of

Michigan State Medical Society, Bay City, May 25-26, 1921.

General Session, Wednesday, May 25, 1921—1:15 P. M.

1. Address: "The Influence of Disease on History." By Dr. Mazyck P. Ravenel, Columbia, Missouri. President American Public Health Association.
   Discussion: Dr. Guy L. Kiefer, Detroit.
2. Address by Dr. C. C. Slemons, Grand Rapids. President Michigan Public Health Association.
3. "The Prevention of Diphtheria."
   Dr. J. A. Humphrey, City Health Officer, Lansing.
   Discussion: Dr. C. F. Neafie, Health Officer, Pontiac, Dr. C. P. Drury, Health Officer, Marquette.
4. "The Relation of Community Clinics to Public Health." Dr. William DeKleine, Health Officer, Flint.
   Discussion: Dr. David Littlejohn, Health Officer, Ishpeming; Dr. A. H. Rockwell, Health Officer, Kalamazoo.
5. "School Inspection." Dr. C. J. Addison, Health Officer, Muskegon.
   Discussion: Dr. T. E. McGurse, Health Officer, Port Huron; Dr. A. A. Hoyt, Health Officer, Battle Creek.
6. "The Public Health Problem of Throat Infections." C. C. Young, Ph.D., Director of Laboratories, State Dept. of Health, Lansing.
   Discussion: Dr. George F. Clark, Health Officer, Saginaw; Dr. C. W. Olsen, Health Officer, Ironwood.

Section Meetings, Thursday, May 26, 1921—9 A. M. to 1:15 P. M.

Section A 1. Public Health Administration, Chairman, Dr. R. M. Olin, State Health Commissioner, Lansing.
2. Vital Statistics, Chairman, Mr. William F. Petrie, Department of State, Lansing.

Section B 1. Child Hygiene, Chairman, Dr. F. M. Meader, Department of Health, Detroit.
2. Public Health Nursing, Chairman, Mrs. Lystra Gretter, Detroit.

Section C 1. Sanitary Engineering, Chairman, Prof. William C. Hoad, University of Michigan.

Section D 1. Laboratory,
Chairman, Dr. C. C. Young, State Department of Health, Lansing.

The proposition of holding section meetings is more or less of an experiment, and the success of such meetings will depend largely upon how well the annual meeting is attended.

In order not to sub-divide the groups too far, it has been decided to join the sections on Public Health Administration and Vital Statistics; likewise the sections on Child Hygiene and Public Health Nursing. Each subject, however, is assigned to a program chairman and it is anticipated that the respective chairmen will consult each other in the preparation of their programs.

ENTERTAINMENT

Tuesday Evening, May 24th, 9:00 P.M.

Informal reception and smoker, tendered by the profession of Bay County to all visiting members, Chamber of Commerce.

Wednesday, 10:00 P. M., May 25th—Elks Club.

FOR THE LADIES

May 24, 8:30 P. M.—Theatre Party.
May 25, 10:00 A. M.—Auto Ride and luncheon.
May 25, 5:30 P. M.—Dinner.

REGISTRATION

The Registration Booth will be located in the Chamber of Commerce Building and will be open from 1:00 P. M. to 8:00 P. M., May 24; from 7:30 A. M. to 7:00 P. M., May 25th; from 8:00 A. M. to 3:00 P. M., May 26th.

Delegates must present their credentials to the Credential Committee of the House of Delegates.

LOCATION OF BUILDINGS

First Baptist Church—Center and Madison Avenues.

Board of Commerce Club—Center and Jefferson Street.

Elks Temple—Center and Adams Street.

Masonic Temple—Sixth and Madison Avenue.

HOTELS

Wenonah
Kimbark
Imperial

GARAGES

Bay City Bus Company.
Special rates for this meeting.

LOCAL COMMITTEE ON ARRANGEMENTS

RECEPTION: Doctor P. R. Urmston, Chairman, with entire Bay County Society as members.

ENTERTAINMENT: Doctors Perkins, Hauxhurst, Gallagher, Gustin Baird and Crance.

LADIES' ENTERTAINMENT: Doctors Williams, Ely, Tupper and wives of Society members.

EXHIBITS: Doctors Loud, Stone, Trumble and Huckins.

HOTELS AND ACCOMMODATIONS: Doctors Dumond, Slattery, Foster, Zaremba, and Stewart.

LOCAL ARRANGEMENTS: Doctors Grosjean, Baker, and T. A. Baird.

PRINTING: Doctors L. S. Ballard, McEwan, Bergstrom and Lawrence.

PRESCRIBING FOR THE DOCTORS.

Anger is stirring some of the medical fraternity over the case of the little Waukegan, Ill., girl who was reported in the daily press as having been cured of incessant talking by a chiropractor. Through the weekly bulletin of the Wayne County Medical Society, it appears that the American Medical Association has been investigating the matter, and has published a statement that the girl had epidemic encephalitis—otherwise, brain fever—that she was not cured, and that the chiropractor was discharged by the family after he had failed to restore her to anything resembling health.

The most effective portion of the complaint is that the daily papers, besides publishing long articles and features about the "miracle," accepted paid advertisements from the chiropractors, and did not retract or stop printing the advertisements after the chiropractor's "cure" turned out a fake, as the A. M. A. charges it to have been.

Obviously, there is room enough for severe criticism of the people who took the money for space in which the "miracle" was exploited unless they had made careful investigation of the claims set forth. We may also fairly blame papers which may have really refused to print a correction about the matter. But we doubt very much whether one paper in ten, throughout the country, has ever heard there was a correction. They would never discover it through the Journal of the A. M. A., a periodical which is seen by very few excepting physicians. Certainly not many Detroiters, editors or otherwise, would ever see the bulletin of the Wayne County Medical Society. One may almost say that no more effective way of concealing the truth could be found to to print it only in such organs as these.

It is surely unfortunate if quacks, with the assistance of yellow journalists, deceive the public. But the doctors cannot expect the public, nor the average newspaper editor, to know technical truths intuitively. If they would drop some of their antediluvian ideas about the ethics of publicity and help instruct the public through the press, there would be far fewer incidents which would stir their choler. They might also find the public more responsive to their views on other matters affecting the profession.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Editor and Business Manager
FREDERICK C. WARNSHUIS, M.D., F.A.C.S.
Grand Rapids, Mich.

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Associate Editor, Detroit.

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All communications relative to exchanges, books for review, manuscripts, news, advertising, and subscription are to be addressed to F. C. Warnshuis, M.D., 4th Floor Powers Theater Building, Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5.00 per year, in advance.

May, 1921

Editorials

ETHICAL ADVERTISING.

Probably never before in the history of medicine was there more need for clear thinking on the subject of publicity, than at the present time. Medical specialism may be classified into anatomical specialties, such as gynecology, laryngology, neurology and the laboratory specialties such as X-ray, bacteriology, clinical microscopy or pathology. The latter class of specialty is being exploited by money interests, who resort to the advertising pages for their personal agrandizement. A well-known hospital with salaried medically trained employes recently used the advertising pages of the public press to reach the eyes of the people.

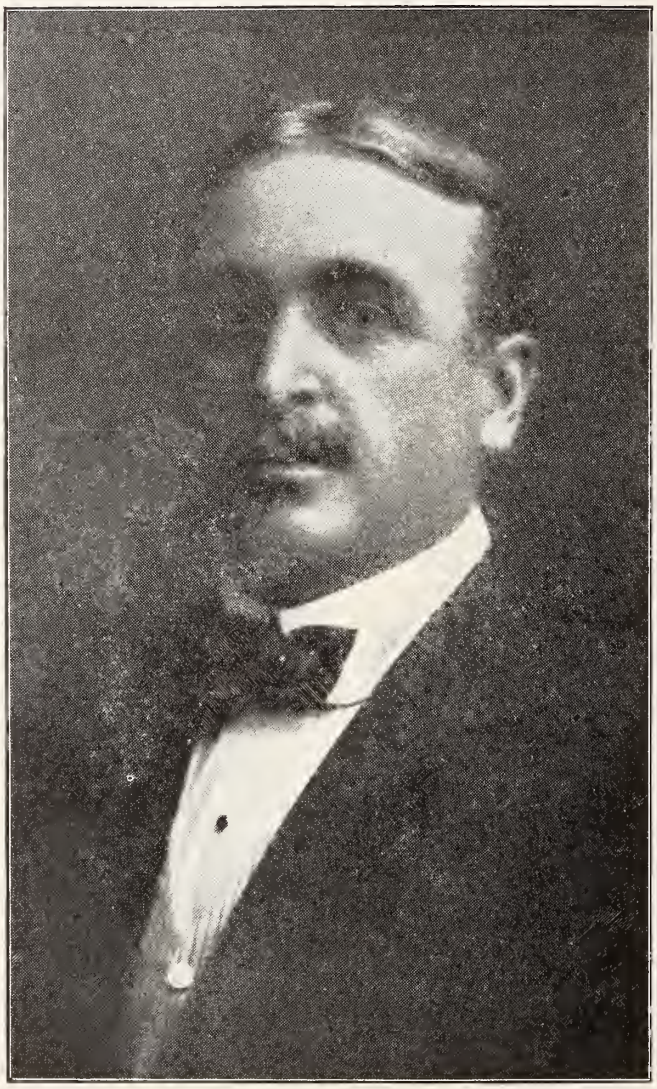
This leads to the question, What is Ethical Advertising? The time was when all professional men wore the badge of their profession in their personal attire. A relic of this custom still remains in the vesture of the clergyman. The physician's handbag and the emblem on his automobile are in a sense advertising. The term Doctor or the M.D. after his name are constant reminders of the medical man's vocation. They are, however, legitimate means of attracting the attention of the public to the doctor's calling. The publication of papers in professional journals are likewise legitimate, and the mailing of reprints of published articles is likewise considered within the bounds of propriety, as is also the publication of books. The medical book if carefully and authoratively written is simply carrying the idea of the reprint to greater permanence and completeness. This also affords the writer legitimate publicity. The delivering of addresses before medical societies is in the same category as the writing or scientific papers and books. Teaching in medical colleges is another form of publicity, but the best form of advertising is thorough, honest and conscientious work. This is ethical advertising first because any reference by way of self-praise of the author or doer is eliminated and it is advertising (ad, to and verto, I turn) inasmuch as the attention of the medical profession is turned towards or drawn to the particular kind of work the writer or speaker is doing.

A merchant may advertise his goods and if he is strictly within the bounds of truth his advertising is ethical. There is a difference between proclaiming one's personal ability and urging on the attention of a prospective buyer the superiority of one's merchandise.

Any form of self praise is objectionable whether it appears in a medical journal, newspaper or theological publication. It is the tendency to extol ones personal merits that has made advertising of professional services such a delicate and questionable subject.

Now is the time that the profession should study the social and economic phase of medical practice. If the profession is to allow itself to be exploited by capitalistic interests there is no telling where such exploitation will end. The next step will be the organization of stock companies and by means of advertising campaigns, the individual doctor will be relegated to obscurity. Are we going to stand idly by and watch the commercializing of the most human profession in existence?

J. H. Dempster.



ANGUS McLEAN
President

ANNUAL MEETING.

This issue contains the programme for our annual meeting in Bay City. We are also publishing a pictorial and word description of Bay City. Our section officers have succeeded in arranging sectional programmes that promise well for profitable sessions. It will be noted that the essayists are all Michigan men and the subjects are most practical. We are certain that the speakers will meet up to a high standard and that the discussions will impart that benefit which always results from the exchange of our personal experiences.

The profession of Bay City has perfected splendid arrangements for the care and entertainment of those in attendance. Our comforts will be well attended to. We know a most cordial reception awaits.

The discussion on Radium by Dr. Curtis Burnam, of Baltimore, was arranged for by President McLean. Dr. Burnam is the recognized authority on radium in this country. We have every reason to believe that he who hears Dr. Burnam will receive a practical understanding of the value and therapeutics of radium.

We were fortunate in being able to secure Dr. Burnam for this meeting.

There are a number of other good things in store. We can but urge that each member arrange to attend. Our Bay City meeting will stimulate you to better work. Write now for your reservations and plan your work so as to spend the entire three days in Bay City. For details refer to the programme

COMPULSORY HEALTH INSURANCE.

We are publishing in this issue a stenographic report of the conference held in Chicago by the Physicians, Dentists and Pharmacists of that city. The main speaker was Dr. O'Reilly of Brooklyn. The doctor is the President of the New York organization of physicians, dentists and druggists that accomplished, by its organizational work, the defeat of the Davenport bill that sought to introduce Health Insurance in New York.

We are desirous of keeping our members informed as to the incidents that are taking place in this attempted effort to institute this form of state medicine. The proponents are persistently active in their campaign. As a profession we are too complacent. We are not pursuing a course characterized by concerted action to defeat the ends sought by these would be reformists. The need presents more pressingly than ever that we manifest a keener interest in the solution of this problem. It is by no means a vague possibility. There is a need for wide dissemination of information. There is greater need for telling action on the part of our members.

This past week we read of a statement made by a professor of the Socialogical Department of our University in addressing a lay audience in Grand Rapids in which he declared that unless physicians reduced their fees there would be no alternative but state medicine. This is but another instance of a member of the University seeking to dictate the policy of physicians. What we want to know is why not reduce attorney and engineering fees and the salaries of faculty members? Evidently this speaker has been converted to the Ann Arbor idea, or, is he but one of a corps being sent out designedly to agitate the subject and enroll public support by appealing on the basis of financial expense? We are just wondering wherein the connection, if any, exists.

Then again in this issue we are publishing an amendment introduced in the legislature this week. This amendment seeks to establish fees for the professional services we render to patients in a hospital. That is but the beginning of price marking.

News also reaches us that in the Hospital Plan at Ann Arbor the salary of the full time attending professor shall be $25,000 per year as a maximum limit.

And so we might continue to cite incidents that appear with increasing regularity and indicate that while we remain "at rest' our future is being shaped without effective protest. How long do you propose to remain silent?

LEGISLATIVE INFLUENCE.

Reference has been frequently made to the advice given to certain New York physicians "to go home and organize, etc." The implication is made that organization is all that is required to secure legislation influence and prestige. That organized effort is effective to a degree is recognized; but organization is not wholly self sufficient. It is but a feature of the problem of securing recognition.

We have never been able to understand why doctors collectively command so little recognition in administrative and legislative circles. In fact, they are received with a certain degree of distrust and tolerance; frequently they are openly ignored and sometimes ridiculed or imposed upon. Of course we recognize that collectively we have never taken the pains to draw back the curtain of our code of ethics and give the public a clear vision of our inter-relationship. We have too frequently thrown out a smoke screen and beclouded our ideals and purpose. We have in silence permitted misconstruction and have not deigned to correct the interpretation of our motives as they were construed by lay or even professional individuals imbued with selfish and ulterior motives. Basicly we have remained too self centered and modest. We have been content to allow the years to pass in pacifist attitude seemingly expectant that our virtues at some time or other would blossom forth in diapason volume, thus automatically creating a niche for us in the Hall of Fame. In all of our relationship to the public in the past decade our dianoetic attitude has been diamagnetic to the progress of all social, civil and industrial activity. That may be putting it a little strong. Nevertheless we are of the opinion that fundamentally this premise is correct. We are indolent and too self satisfied to indulge in refutation as a collective group.

We did not start out to recite an indictment, what we proposed was to acquaint our members with the attitude that legislatures throughout the country are recording against the regular medical profession. The foregoing paragraph injected itself and we are letting it stand. Possibly it may serve a purpose.

The Texas legislature, because of splendid work by Texas doctors, has rejected a bill giving privileges and license to the cults. It has also passed amendments enhancing its medical practice acts and thus protected the people of Texas from charlatanism. In the legislatures of other states a grist of bills dealing with medical matters and which let down the bars, have been introduced. The fate of these bills are still in the balance. They are indicative, however, of an increasing sentiment to attack present medical standards and to remove their protective (to the public) provisions. At their hearings in committees, the cults, scientists and "freedomites" are well represented in members and by well paid attorneys and lobbyists. The doctors, while present and heard, receive scant recognition. Their representation and arguments are twisted and falsely interpreted.

Such are the facts—we might enter at length in specific citation of actual instances. Just now we are refraining from doing so because we are merely seeking to inspire to activity our county societies to a discussion of our legislative influence and interests. We urge a frank consideration of the subject. We look for definite expression. We trust that some policy will be formulated. We hope that delegates will be instructed to present some plan of activity. We then expect our House of Delegates to continue the discussion and determine upon a definite plan of procedure that will wipe out this legislative attitude to the doctors.

We may not be very much embarrassed by adverse legislation enacted by this year's Michigan legislature but if we continue in our present lack of interest God pity us in 1923. If you do not believe us, go down to Lansing, see and hear and become convinced. A delegation or committee of doctors in Lansing today is followed by the same result as does when you wave a red flag before a bull—wild is putting it mild. What are you going to do about it in 1923?

REDUCED RAILROAD FARE.

We have been able to secure a rate on all railroads of one and one-half fare for the round trip on the Identification Certificate plan. This will mean a desirable saving of travel expense. To obtain this rate the following procedure is necessary:

(1) *Send to F. C. Warnshuis, Powers Theater Bldg. Grand Rapids, Mich., a self-addressed, STAMPED envelope. Note: A self-addressed, stamped envelope.*

(2) *We will mail you a Certificate, entitling you to reduced railroad fare.*

(3) *Present this certificate to your local agent when purchasing a ROUND TRIP ticket.*

(4) *Your return ticket must be validated at Bay City.*

For the convenience of Detroit members we are sending a supply of certificates to the County Secretary from whom they may be secured.

Remember you must have this certificate to secure this rate. Don't forget the stamped, self-addressed envelope when writing this office.

ANNUAL MEETING OF MICHIGAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS.

The Michigan Association of Industrial Physicians and Surgeons will present a very interesting and instructive program on the afternoon of May 24th, at Bay City, Michigan.

The Association was organized last year in Kalamazoo, and it is the desire of its members to have one afternoon during each state society meeting devoted to industrial medicine and surgery.

Every doctor, whether he is in general practice or a specialty, has work under this classification and the papers and general discussions will make these meetings very interesting and valuable.

Dr. Ralph W. Elliott, manager of the Medical Department of the National Lamp Works at Cleveland, Ohio, will address the society on some surgical phase of his work.

Dr. Francis D. Patterson of Philadelphia, secretary of the American Asociation of Industrial Physicians and Surgeons, will be present and give an address on some medical subject pertaining to his work.

Dr. H. N. Torrey, chief of the medical staff of the Michigan Mutual Liability Company, and president of the Michigan Association, will

give a resume of what has been accomplished by the Society during the past year.

As this meeting will not conflict with any other section, it is hoped that all visitors at Bay City will attend.

THE PASSING OF THE PATHIES.

It is not without considerable hesitancy that we enter upon an editorial discussion of this subject. It is a topic that has been before us for some time but for one reason or another has been postponed for comment. Current events now press the timeliness of a frank statement. Circumstances call for the consideration of the subject and indicate the need of pronouncement as to the attitude of the profession as a whole. In engaging in this discussion we renounce every semblance of a harping criticism. We have no personal or collective grievance. We are casting no reflections upon individuals. We seek no quarrel nor do we desire to inspire one. What is desired is a recognition of present day conditions.

It must be admitted that the days of pathies are past. Medical progress, medical investigations have clearly demonstrated that there is no single system or school of medicine that is all sufficient. Our present knowledge demonstrates that allopathy, (so-called) homeopathy, eclecticism, physio-medic, or of our other old classification do not by their theories or therapeutics present means or measures that will prevent, alleviate, or cure human ills, if recourse is had to their restricted and limited practices. He who seeks to meet up to his professional responsibilities cannot, with honesty, subscribe and practice whole-hearted, exclusive allegiance to any one pathy. No physician can be a loyal, allopath, eclectic, or homeopath and render modern service or give dependable advice to his patients. There is no pathy that is tenable in itself. It is recognized that in each of these schools or pathies there has been and still is much that is good and much that will remain beneficial—principles and practices which we all employ at various times and which are definitely indicated. There is also much that should and must be discarded for reasons that are apparent in the light of our progress. We do not believe that there is need for a lengthy discussion of this premise. It is accepted by all who have remained abreast of the times and who have risen above a narrowness of viewpoint. The hide-bound days are past.

Several homeopathic colleges have closed in the past few years on acount of lack of students and financial support. Two have closed within the past few months. In the leading and only homeopathic Chicago College there are but fifty students. In the Homeopathic Department of our Michigan University we understand there are but forty students enrolled, that they are confronted with a difficulty of securing efficient faculty members. No school can be administered efficiently or supported with but forty students. The alternative of closing their doors is pressing. What shall be done is the question that confronts these men.

In Michigan the subject is being discussed by the Regents and the Legislature. We are all more or less familiar with the existing situation. We understand also that the State Homeopathic Societies have discussed the present state of affairs and some have gone on record vigorously opposing the closing of the Homeopathic Department at Ann Arbor. In doing so, are they not seeking to resist and prolong the inevitable? Is there any just reason for continuing that department?

We readily perceive that he who graduated in homeopathy and has practiced its teachings must be loath to concede that his school of practice must, in our present knowledge of practice, be submerged or absorbed by one uniform educational standard. We recognize that it will not be easy for a disciple to witness the passing of his Alma Mater. This is not a time for sentiment. The greatest good will result from a passive recognition of the inevitable and acceptance of the change that progress accomplishes. Individuals there will be who will resort to various measures more or less honorable in an attempt to continue their individual pathy. They are the ones who in recent years have subscribed to their pathy for purely financial reasons and who have held aloof from the general profession because of fear of losing consultation fees from their "pathic" conferors. For such we have no concern. To the real men in homeopathy—its leaders—we suggest this plan. It is recognized that the therapeutics of homeopathy contain the only reason or vestige for its existence. That this therapy can in part be of valuable aid to every physician and a familiarity with its principles is desirable for him who practices medicine in the immediate future. In view of this let there be created a chair of homeopathic therapy in our Medical Department and so salvage that which is worth while from our present homeopathic department. Having reclaimed this and providing for its perpetuation, close the present inadequate and below recognized standard homeopathic department of our University. The ex-

pense of its continuance is no longer justified.

As we stated in the beginning we are seeking no quarrel. Our aim is an acceptable solution of a condition. As a profession we cannot afford to be divided or engage in internal strife. Grave conditions threaten and assail our status before the public. A united front must be formed. We must openly come forth and demonstrate that we who are physicians in Michigan have no "isms" or "pathies." That we employ and follow in our professional activities that which knowledge and experience proves to be of the greatest benefit to the individual and the public. It is for these reasons and because of the revelations that time has developed that we are suggesting that the passing of the pathies be made the occasion for a more closely affiliated relationship of all graduate physicians.

Editorial Comments

SELLING HEALTH.

We have taken the liberty of quoting somewhat freely from an article of M. Charles Cason in the March 30, 1921 issue of the Outlook.

Unusual and forceful methods were employed in "selling health' 'in Lee County, Mississipppi. With the help of the Rockefeller Foundation a model health campaign was instituted to last for one year. Everybody co-operated in this.

The County had 1,500 road signs set up, heralding itself as a model health County and prizes were offered for health slogans ("Chew Your Food, You have No Gizzard" earned the first prize for a little school girl.) Mass meetings, picture shows, health literature and a rural motor clinic were other methods of publicity. They even covered a circus elephant with health banners as a propaganda. Free moving pictures were presented for rural churches and schoolhouses.

The result of this campaign is that the people of Lee County have developed a new sanitary and a new social sense and their enthusiasm has freed the County from preventable diseases and dangers of unsanitary things in the three months since it started.

The following concrete things have been done: 2,712 homes have been surveyed, 8,907 individuals have been physically examined, 200 people have been vaccinated against typhoid fever, 1,100 school children have been medically inspected, an epidemic of scarlet fever has been controlled, 30,000 pieces of literature have been distributed and 52 public meetings have been held.

What is needed is a more general recognition by all doctors that to be succesful and minimize diagnostic errors more detailed attention must be given to thorough and systematic examinations of patients. In addition greater use must be made of laboratory tests. Public confidence will be secured and held by a low average of errors. A busy morning, unmade calls and arrival at the office to find a large number of patients waiting makes for a tendency to superficial examinations and faulty diagnosis. We are too prone to begrudge the time to strip a patient and thus become careless. We constantly lay ourselves liable to mistakes by adopting such an attitude in our office work. True we may put in longer hours of work but in the end we will have just reason to be proud of our accurately made and substantial diagnoses. We urge a systematic observance of a careful history, complete physical examination, laboratory examinations and scientific therapy as our routine attendance and service for those who consult our members. More thoroughness is decidedly indicated.

Attention is directed to our advertising pages which again contain new advertising copy. We are greatly desirous that these as well as our regular advertisers be made to feel that results will follow the use of our advertising pages. Will you not write to them and patronize these firms who thus support your Journal?

In our zeal to early detect tuberculosis we should not be led astray and accredit all pulmonary physical signs, other than in the pneumonias, as being tuberculous in type. We must differentiate those pulmonary signs that result or occur by reason of cardiac disease or involvement and which produce a pulmonary circulation change which gives rise to altered breath sounds. Dr. J. S. Pritchard, of Battle Creek, has just favored us with a reprint of a timely article he wrote upon this subject.

Criticism is easy but to construct is difficult. This may appear to be a somewhat trite comment but is characteristic of a good many members. Information is at hand that this is the reason some of our local officers and committees hesitate in engaging in greater activity. An officer or member is loath to become aggressively active if his efforts are rewarded solely by harping criticism. No offense is ever taken from constructive criticism—it is the jealous type, obstructive criticism that discourages progress. There has been quite too much anvil chorus performances—let us turn over the page and practice a few landatory anthems. Boost your local officers, subscribe your time in assisting—not knocking.

The Genesee County Society, with commendable spirit, purchased three full sets of the pamphlets of the American Medical Association dealing with nostrums, quackery, fraudulent advertising, cults, etc., and presented these sets to the editors of the Flint newspapers. We understand that the first net result has been that one of the Flint papers now refuses to accept the advertisements of chiropractors and nostrums. What we need is similar action by other societies of our organization. We have a definite duty in the education of the public. Shall we not perform it? We congratulate the Genesee County Society

upon their undertaking and the result that has ensued. Will you not follow this example in your county?

As far as we have been able to learn, the Muskegon County Society is the only organization that secured the publication of the exposure of the recent fake chiropractic ad wherein it set forth that one of their number had cured a case of encephalitis lethargic. The story was published in the *Muskegon Saturday Night* after the local daily Scripps Booth paper had refused to state the facts and offered to sell its advertising space to the society as the only way in which they would provide publicity. We felicitate the members of the Muskegon County Society for having thus locally refuted a dishonest advertising statement. May all our component societies become more active in the educational movements that will enlighten the public. Well done Muskegon.

Remember the dates, May 24, 25 and 26th—Annual Meeting, Bay City.

Radium is now available for therapeutic use in several localities in Michigan. The discussion on Radium by Dr. Burnam of Baltimore at our Annual Meeting in Bay City, therefore, promises to be of additional interest. Don't miss this feature.

The County Secretaries will meet with the Council at a luncheon at noon on Thursday. County Secretaries are urged to be present for this conference.

The appointment of President Work of the A. M. A. as First Assistant Postmaster General is a pleasing recognition. Possibly in another generation of physicians there may be witnessed the election of one of our profession to the high office of President.

The reservations for rooms will be well taken care of by the Bay City Entertainment Committee. No one need remain at home for fear of not being able to secure accomodations. However, to avoid confusion, write now and give the Committee a chance to better care for you.

A bill to secure practice rights for chiropractors was defeated by the Texas legislature. We understand that in Iowa the legislature of that state has granted chiropractors the right to practice surgery. Watch the surgical mortality rise in Iowa.

Some there may be who will claim that a medical journal should not editorially comment upon political and governmental problems and issues. With such we must respectfully differ. While medical journals may primarily be scientific publications, still as organs representative of a profession it surely is consistent and proper to make passing comment upon national and state affairs when such comment is characterized by non-partisanism—when it represents expressions of loyalty as well as for the furtherance of the safeguarding of our national existence. As occasions present such comment may be expected to appear in these columns. At no time will they be permitted to give expression in support of a given party, individual, cult, creed or fraternity. They will be confined to an effort to inspire greater loyalty and better Americanism. In the furtherance of that one object all else must become secondary. As an organization we owe that support and that loyalty to our flag and our country. We proffer no apology for such an editorial attitude.

The American Legion pledges itself to a greater development of Americanism. There is need for a greater exhibition of Americanism to counteract the propaganda that is being spread and to defeat the disloyal movements that are seeking to create a revolutionary spirit among our various classes of citizens. We urge that our profession manifest a wholesome and wide interest in this Americanism movement. We may well become personal workers in furthering this program of America and Americanism first and above all else. We owe that to our country.

Deaths

Doctor Carl Meloy was born in Springfield, Ohio, in 1882 and died in Detroit, March 30, 1921. He received his early education in the public schools of Springfield, graduated from Wittenberg College in 1902 (B.A.). In 1905 this institution gave him an M. A. He received his medical education in Johns Hopkins Medical School and graduated in 1906. Following his graduation he specialized as a pathologist in Richmond, Va. In 1913 he became Director of the Department of Clinical Diagnosis and Research in the Detroit General Hospital. He resigned in 1914 when Henry Ford took over this hospital. He was immediately appointed Director of Laboratories in Grace Hospital, which position he has held ever since. He was a member of the Wayne County Medical Society, the Michigan State Medical Society, the American Medical Association, the Detroit Boat Club and the Corinthian Lodge, F. & A. M. He leaves a widow and three children. Carl Meloy had a charming personality, was loved by all who knew him, and held the respect of his professional brothers.

Charles B. DeNancrede was born in Philadelphia, December 30, 1847 and died in Ann Arbor, April 12, 1921. He graduated from the Medical Department of the University of Pennsylvania in 1869. He practiced in Philadelphia and held various chairs and hospital appointments there. In 1889 he was appointed Professor of Surgery at the University of Michigan which he held until about 4 years ago when he resigned.

In the Spanish-American War Doctor DeNancrede was Major and Chief Surgeon, U. S. Volunteers in the Santiago Campaign.

He was a member of the American Surgical Society (Ex-President), American Medical Asso., Michigan State Medical Society, Pennsylvania State Medical Society, Ohio State Medical Society, Colorado State Medical Society, Saginaw Valley Medical Society, Toledo Medical Society, American Academy of Medicine, and International Society of Surgery. He was a corresponding member of the Royal Academy of Medicine of Rome.

He was the author of "Principles of Surgery," and a contributor to International Cyclopedia of Surgery, Wood's Hand Book of the Medical Sciences, Cyclopedia of the Diseases of Children, Cyclopedia of Diseases of the Nose and Throat, Dennis' System of Surgery, Parke's Treatise on Surgery, and American Practice of Surgery.

He was married to Miss Alice Dunnington of Baltimore in 1872.

Doctor B. Howard Lawson was born in New York City in 1830 and died in Detroit April 15, 1921. He received his early education in the public schools of New York City and his medical training in the Cleveland University of Medicine and Surgery (M.D. 1871.) He came to Michigan shortly afterwards, opening a hardware store in Howell. A few years later, he started the banking house of B. H. Lawson & Co., in Brighton. He located in Detroit in 1889 and for some time devoted his energy to the establishment of the Union Trust Company and was its first assistant treasurer. A little later he entered the practice of medicine, becoming a member of the staff of Grace Hospital and was vice-president for a period.

He was a member of the Knights Templar (Chaplain of the Old Guard of that lodge), a member of the Consistory and of the Shrine. He was a life-long Presbyterian, attending during the last years the Grosse Pointe Presbyterian Church.

He was the father of the late George E. Lawson (former President of the People's State Bank of Detroit). He leaves two children, Mr. Charles Lawson of Detroit and Mrs. James Lee of Grosse Pointe. He married Miss Maria Holling of New York City in 1872. She died four years ago.

Doctor Thomas P. Camelon was born in London, Ontario, in 1870, and died in Detroit, April 7, 1921 of pneumonia. He graduated from Trinity Medical College (Toronto) in 1890 and from the Faculty of Medicine of Queens University (Kingston, Ontario) in the same year. After practicing medicine for several years in Indiana, he came to Detroit and was licensed in 1900. His practice was limited to diseases of the nose and throat.

When the United States entered the World War, the Doctor imediately volunteered for medical service. He was commissioned First Lieutenant and was sent to Fort Benjamin Harrison. Later he was stationed at Camp Custer. In June 1918 he was sent over seas with the rank of Captain and served in the field hospitals in France. Before he returned to America he was commissioned a Major. He was discharged from the service June 1, 1919.

Doctor Camelon was a member of the Wayne County Medical Society, the Michigan State Medical Society, the American Medical Association, Palestine Lodge, King Cyrus Chapter, Monroe Council, Michigan Soverign Consistory Moslem Temple of the Mystic Shrine, Detroit Commandery, the Masonic Country Club, Detroit Athletic Club, Learned Post, American Legion, and Officers of the Great War.

The Doctor is survived by his widow, two sisters (Mrs. William Delany of Cobourg, Ontario and Mrs. Frederick Weir of Peterboro, Ontario) and a brother (John M. Camelon of Chicago.)

Doctor Camelon's professional ability and certain personal traits obtained for him a very large clientele. He was dearly beloved by so many of his patients and friends for his warm sympathies, his great personal magnetism, his forgetfulness of self, and his devotion to his ideals.

Doctor M. C. McDonnell died at his home in Bad Axe, March 22, 1921.

Doctor McDonnell was born at Lockport, N. Y., June 12, 1850, and six years later removed with his parents to Dexter, Michigan. He was a graduate of the medical department of the University at Ann Arbor of the class of 1876.

Surviving are the widow and five children.

Doctor A. M. Darling of Crystal Falls died Feb. 23 at St. Petersburg, Florida where he went last fall to spend the winter.

The deaths of the following doctors not members of the State Society have been reported: Dr. R. C. Greenwood, Hancock; Doctor T. G. Huizenga, Zeeland; Dr. F. Sauer, Hammond, Ind.; and Dr. G. W. Hawley, Detroit.

State News Notes

COLLECTIONS.

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Rerefence any Bank in Battle Creek.

Doctor C. E. Sawyer of Marion, Ohio, who is President Harding's physician, has been a close personal friend of the President for many years. He was born January 24, 1860 near Wyandotte, Ohio, and lived there until he reached the age of 17 years. It was here his literary education was obtained in the village schools. At the age of 17 he began the study of medicine and subsequently graduated from the Cleveland Medical College (Homeopathic) in 1881. During his 26 years as a Marion resident, the Doctor has made a notable success in his profession and as the head of a sanatorium south west of Marion. During the World War Doctor Sawyer served as an official in the Marion County War Board and as

Secretary of the National Volunteer Corps. Recently he was appointed Brigadier-General in the Medical Reserve Corps of the Army. A short time ago General Sawyer retired as President of the American Institute of Homeopathy and as Chairman of the Board of Directors of that organization.

Vol. 1, No. 1 (New Series) of the Harper Hospital Bulletin appeared April 1, 1921. Instead of the old quarterly, a monthly publication will be produced. The scientific essays which formed the bulk of the old Bulletin will be discontinued. The field to be covered by this publication will include the following items: (1) A complete and correct roster of the Hospital, kept up to date, including trustees, medical staff, internes and nurses; (2) The publication of all reports which are of general interest; (3) Announcement of all special activities of the Hospital; (4) Titles of addresses and scientific papers by members of the Staff; (5) Announcement of new **hospital** equipment and procedures; and (6) Reports of staff meetings and proceedings of the Executive Committee of the Hospital and so far as possible dates and programs of coming events. The Publication Committee is composed of Doctors H. M. Rich, E. G. Martin and C. L. Douglas. The Annual Reports, published in the April number have crowded out other material. The editors anonunce that the later numbers will be less formal and possibly more interesting.

In talking about his Closed Hospital Bill, Doctor O. G. Johnson, State Senator from Fostoria, makes some picturesque statements. "I have no doubt these super men (staff members of closed hospitals) who aim at a dictatorship in medicine through the means of the closed hospital, feel that the manual toil of general practice would coarsen their refined intellects and dull the fine tactile sense that has produced more mistakes and a finer conceit than anything in medicine. It is easier to get down to the hospital in a closed car at 9 a.m., smoke a few cigaretts in the cloak room, tell a few stories, make the rounds, pick up a few hundred dollars from cases than it is to hunt the game itself. Will the hospital physician make any mistakes. If he does, he will be protected by the closed system and his grave yard will not have his name plate at its entrance."

The General Meeting of the Wayne County Medical Society was held Mar., 21, 1921 with a two paper symposium on the "Question of **the** Proposed Municipal Hospital." Doctor Henry F. Vaughan's part was devoted to "The Proposed Program of the Board of Health with Special Reference to Hospitalization." Doctor Harold Wilson followed this paper with one on "A Tentative Proposal with Reference to Community Health." These two papers were well discussed by Doctors Frank Walker, C. G. Jennings, I. L. Polozker, Paul Wooley, F. R. Starkey. B. Monkman, G. L. Kiefer, Howard Pierce, Hugh Harrison, Hugo Freund, H. F. Vaughan and Harold Wilson.

The number of cocaine and morphine addicts in Detroit is showing a steady decrease (Joseph Dederich, Chief U. S. Narcotic Agent). There are two reasons for this: (1) The co-operation of the police and Government agents in arresting dope peddlers; and (2) The advice given by Federal agents to the addicts. The dope peddlers are seldom addicted to the use of the narcotics and deserve small mercy at the hands of the law. They are simply capitalizing the weakness and misfortune of others. On the other hand the addict is deserving of a helping hand. Sometimes a word of advice from the agents or the police has started the cure of a man seemingly hopelessly enchained.

On February 14, 1917, the plan of creating a series of endowment funds for the Library of the Wayne County Medical Society was launched, such funds to be established in memory of physicians who during their life had endeared themselves to the people of the community. Several thousand dollars was subscribed at that time. The Great War came on and the movement stopped. Such an endowment is the logical solution of the problem. The active campaign recently undertaken by the friends of Doctor B. R. Schenck in memory of his labors among them, should set an example to many others.

Doctor Homer E. Safford of the Detroit Juvenile Court Staff says that in his 25 years of medical practice he has been impressed with the number of cases in which nervous and mental disorders have predominated. Many could have been prevented, had there been adequate hospital facilities. He is in favor of the new Detroit Municipal Hospital because it means that many of these cases can be given proper observation and many delinquents can be returned to the straight and narrow path with the proper study. At the present time such study is hampered by the lack of facilities.

A resolution, offered March 21, 1921 by Doctor Frank Walker, but written by Doctor Harold Wilson, was voted upon by the Wayne County Medical Society. This resolution suggested that, to obtain desirable co-operation between the various hospitals and other agencies for the prevention and treatment of disease, a recommendation be made to the Mayor and the Council for the appointment of a health and hospital council, to be made up of representatives of the various boards such as Board of Health, Welfare Commission, Community Union, Recreation Commission, Board of Education and the Medical Profession.

Grace Hospital, Detroit, has recently completed and opened a new maternity service. It is completely isolated from other hospital activities. This suite occupies the entire second floor of a newly constructed fireproof wing of the Hospital. This segregation of the obstretical work of the Hospital offers a degree of privacy that this Hospital has never been able to obtain heretofore. The suite consists of 16 ward beds and two con-

finement rooms, with sterilizing and utility rooms adjoining. This maternity service is open to any qualified physician when beds are available.

On April first the members of the Mecosta County Medical Society tendered a complimentary dinner to Dr. W. T. Dodge. The occasion being the eve of his sixty-second birthday. Approximately thirty-five members were present and included some from neighboring counties. Dr. Le Fevre, of Muskegon, read a paper on the Overdrained Abdomen. Dr. Wilson, of Detroit, gave a talk on Vitamines, illustrated by lantern slides. Several addresses were made during the dinner in which the respect and friendship of the members for Dr. Dodge were expressed.

In 19 Detroit Public Schools, children have been given health cards to tabulate their daily habits. For instance there are spaces for credits to be given for drinking milk instead of tea or coffee, keeping the teeth clean, keeping the bed room window open at night, taking a bath and the like. Children who receive a certain percentage, are a given a health button at the end of a month. A number of the mothers state that these school cards have succeeded where they have failed.

Doctor John Know Gailey retired from the practice of Medicine April 1, 1921. He was born in 1854 and graduated from the New York University Medical College in 1877. Thirty-nine years ago he came to Detroit. He was Supt. of Harper Hospital for several years and then entered private practice. It was mainly through his efforts that Mr. Hiram Walker built the Children's Free Hospital and for a great number of years Doctor Gailey was a faithful member of its attending surgical staff. Doctor Gailey, his wife and son have gone to California and expect to locate permanently in the neighborhood of Pasadena.

The Michigan Academy of Science met March 30, 31 and April 1, 1921 in Ann Arbor. The program of the Sanitary and Medical Science Section was taken part in by the following men: Doctors H. W. Emerson (Bacillus Botulinus in Foods), V. C. Vaughan (Albuminal Diseases), G. T. Palmer (Weather and Disease), W. L. Mallman (A Sanitary Study of the College Swimming Pool), and H. W. Emerson (Factory Wastes in Michigan Streams).

During the latter part of March and the early part of April, a number of cases of typhoid fever due to contaminated river water, were reported to the Detroit Department of Health. The water was obtained directly from the river and not from the city pipes. This emphasizes the danger confronting summer tourists and the necessity of vaccination against this disease.

The General Meeting of the Wayne County Medical Society was held April 4, 1921 and was given over to the Endocrines. The first paper was on "The Relation of Ovarian Secretions to those Produced by other Endocrine Glands, by Doctor R. C. Moehlig; the second, on "The Institial Gland" by Doctor W. H. Morley; and the third, on "Some Factors Influencing the Therapeutic Value of Corpus Luteum Preparations," by C. J. Marinus.

Health Commissioner Vaughan of Detroit has announced that the new Municipal Hospital will be well under way before next fall. The building will be put into use as the different parts are completed. It is estimated that it will take two or three years to complete this structure. It is planned to first take care of mental, pediatric and obstetrical cases and to provide facilities for the out-patient departments. The Department of Health at its meeting April 5, 1921 ordered the structural plans for the building to be made at once. Mr. Albert Kahn of Detroit is the architect.

The Fellows of the Detroit Academy of Medicine were delightfully entertained by Doctor and Mrs. A. D. Holmes at their residence April 5, 1921. Doctor F. W. Robbins gave a talk on "Curling in Edinburgh and Other Things." The Doctor was a member of the Canadian-American team which curled so successfully in Scotland the past winter.

April 2, 1921 the Michigan Supreme Court sustained the decision of the Calhoun County Circuit Court. The Kellogg Food Co. and Dr. J. H. Kellogg are ordered to pay the Kellogg Toasted Corn Flake Co. all the profits and gains that have been received by them from the infringement of said trade-name. An accounting is also ordered.

Mrs. Sarah Dunwoody of Detroit, widow of Doctor John F. Dunwoody, who died in 1918, is suing the Royal Indemnity Co. for $5,000. In 1916 Doctor Dunwoody took out a $5,000 accident insurance policy with that company. The widow claims her husband died by accident of influenza caught when a patient he was treating for pneumonia, coughed in his face.

The program of the April 11, 1921 meeting of the Medical Section of the Wayne County Medical Society was in charge of the Detroit Pediatric Society. There were three papers, "Local Experiences with the Schick Test and Toxin Anti-Toxin" by Doctor Worth Ross, "Bronchial Asthma in Children" by Doctor T. B. Cooley, and "Encephalitis Lethargica: Diagnosis and Sequellae" by Doctor B. R. Hoobler.

Fred Lamb, Golf Professional in the Detroit Athletic Club's Indoor Golf School, has mentioned the names of a number of people who no longer suffer from the "Hook and Slice Disease" and whose caddies therefore this summer will have reason to bless "Professor" Lamb. The

names of two of Detroit's physicians are on the list, Doctors H. W. Hewitt and J. D. Matthews.

The American Society for the Control of Cancer will inaugurate a National cancer week. Cancer experts will lecture on this disease while tons of literature will be mailed throughout the Nation. If this disease is to be stopped, it must be by education. The public will be taught what things predispose toward cancer, the necessity of surgical operations, the uses of radium and the X-ray and the advantages of an early diagnosis. The various departments of health will aid and assist in this drive.

President Harding, Governors of States and Canadian Officials are to be asked to direct public attention to the first National Hospital Day, May 12, 1921 (Birthday of Florence Nightingale). On this date 8,000 hospitals will make this first organized effort to show the public how they care for the sick and unfortunate. The public will be invited to come and see how patients are taken care of and how the nurses and physicians work.

April 1, 1921 Doctors J. Milton Robb and Ralph H. Pino of Detroit anounced the opening of offices with hospital facilities for surgery of the eye, ear, nose and throat at 48 Martin Place. Associated with them are Doctors I. S. Schembeck, Clarence Baker and R. J. Hardstaff. In addition Doctors Robb and Pino will retain their old offices in the David Whitney Bldg.

Doctor W. L. Clark of Philadelphia gave a clinic at Grace Hospital, Detroit, Tuesday morning, March 29, 1921, demonstrating his methods of treating moles, carcinoma, rodent ulcer, etc., by his desiccating electric method and by the use of radium. The clinic was well attended by Detroit physicians and surgeons.

The feeding tests, conducted by the Detroit Department of Health in the public schools, have proven that the majority of cases of underweight are caused by improper nourishment (Doctor Palmer). The experiments will be continued next year and the campaign for the proper balancing of children's diets will be carried into the homes. The Detroit City Council has appropriated $20,000 for next year's expenses.

In the April issue of the Journal, we stated that the State Medical Board was not represented at the Medical Congress. We beg leave to correct this statement as Doctor A. M. Hume, of Owosso, was present at the evening meeting of the Federation of State Boards. To use his own words, "I registered in and of course took an active part in the discussions, etc. If I was there at all, you know perfectly well that I would not keep still."

The officers elected by the Association of American Medical Colleges at the 31st Annual Meeting, held in Chicago, March 8, 1921 are as follows: President, Theodore Hough, University of Virginia School of Medicine; Vice-President, C. P. Emerson, University of Indiana School of Medicine; Secretary-Treasurer, Fred C. Zapffe, Chicago; and Chairman of Executive Committee, I. S. Cutter, University of Nebraska College of Medicine.

The 32nd Annual Clinic Week of the Alumni Association of the Detroit College of Medicine will be held June 13, 1921. The following out of town physicians will hold clinics: Doctors W. S. Bainbridge of New York City (Abdominal Tumors), Charles S. Bacon of Chicago (Obstetrics), Frank Smithies of Chicago (Gastro-Intestinal Diseases), William L. Kellar of Washington (Surgery of the Chest), and L. J. & J. S. Unger of New York City (Pernicious Anemia).

Among the honorary pallbearers at the funeral of Doctor Thomas P. Camelon (April 8, 1921) were the following physicians: Doctors B. R. Shurly, T. A. McGraw, Jr., G. E. McKean, W. J. Wilson, Jr., H. Wilson, F. B. Tibbals, R. C. Jamieson, H. J. Malejan, R. W. Gillman, G. A. Ford, W. J. Stapleton, J. Slevin, E. B. Forbes and G. L. Connor.

C. C. Parish of Detroit, convicted of practicing medicine without a license, was sentenced April 8, 1921, to 6 months in the House of Correction, by Judge Keidan. This is his second conviction for practicing medicine without a license. The first was on August 13, 1920. Major Roehl obtained the evidence for both convictions.

The Federation of State Medical Boards of the United States elected the following officers for the coming year—President, Doctor D. A. Strickler of Denver; Vice-President, Doctor K. P. B. Bonner, of Morehead City, N. C.; Secretary-Treasurer, Doctor W. L. Bierring of Des Moines; and as member of the Executive Committee, Doctor B. C. Richards of Pawtucket, R. I.

The 1920 Annual Report of the Shurly Head and Chest Hospital of Detroit appeared about April 1, 1921. During the past year, 2,612 patients were admitted and 1,843 were operated. The hospital now has a capacity of 67 beds. Since the appearance of the last annual report, a second operating room has been installed. Thirty beds during the past year were set apart for the care of ex-service men. These were continuously occupied.

Wednesday evening, June 15, 1921, the Alumni and their friends will be the guests of the Faculty of the Detroit College of Medicine and Surgery at the College Building. There will be a brief Laboratory Demonstration of Topics of Current Interest by the staff of each science department; an inspection of the teaching and research facilities of the College; and a short dis-

cussion of the policies and methods of the Institution by Dean, Doctor W. H. MacCraken. Refreshments will be served.

The Surgical Section of the Wayne County Medical Society met March 28, 1921. The first paper of the evening was by Doctor W. L. Clark of Philadelphia on "Electric Coagulation and Radium Treatment of Oral Carcinoma" which was illustrated with lantern slides. The second paper was on "Hare-Lip Surgery" by Doctor C. L. Straith, of Detroit, with moving pictures and lantern slides.

Dr. D. Emmett Welsh, of Grand Rapids, returned from a three months' outing in California, on April 2nd. Three days after his return he was suddenly taken ill with bronchial pneumonia. As we go to press we are glad to announce that he has convalesced so as to be able to be out again.

The Medical Special de luxe will be the finest special train ever operated in point of equipment and service. It will depart from Chicago at 8:30 on the morning of June 5th, from Detroit at 2:40 p. m., and will make the running time from Chicago to Boston in just twenty-four hours. Those persons who desire to use the Medical de luxe East and return via New York, Atlantic City and Washington may do so upon application.

The active pallbearers at the funeral of Doctor C. B. DeNancrede, held in Ann Arbor April 15, 1921, were Doctors W. H. Hutchings of Detroit, W. R. Parker of Detroit, H. D. Barss of Ypsilanti, U. J. Wile, C. W. Edmunds and F. R. Waldon of Ann Arbor. The honorary ones were Ex-President H. B. Hutchins, Doctors Reuben Peterson, A. S. Warthin, G. C. Huber and F. G. Novy of Ann Arbor. The burial was in Philadelphia.

On April 13, 1921 Doctor B. D. Harrison of Detroit, Doctor Albertus Nyland of Grand Rapids and Major Roehl of Detroit appeared before the Committee on State Affairs in Lansing in behalf of a bill introduced by Senator O. G. Johnson amending the violation section of the Medical Act.

The first paper on the program of the General Meeting of the Wayne County Medical Society (April 18, 1921) was on "Colon Bacillus Infections" by Doctor A. F. Jennings and the second on "Hare-Lip Surgery" by Doctor C. L. Straith. The latter paper was illustrated by moving pictures and lantern slides.

The Library of the Wayne County Medical Society has recently received a large number of books from Doctor L. E. Maire and a number of volumes from Doctor C. W. Hitchcock. Mrs. Dayton Parker has also contributed to it 100 volumes from the library of her husband, the late Doctor Parker.

The Detroit Community Fund has organized a speakers' bureau, to furnish to any church, school, club or civic organization, speakers who are authorities in the cultural and social service fields. The following physicians are on this list: Doctors A. L. Jacoby, Nellie Perkins, Mary T. Stevens, A. G. Studer, W. C. Cole, R. S. Dixon, A. H. Garvin, and Harold Wilson.

The Michigan State Nurses Association held its Annual Meeting in Flint, May 3, 4, 5, 6, 1921. Doctor J. W. Orr gave the address of welcome from the Genesee County Medical Society and Doctor J. G. R. Manwaring of Flint read a paper on "Private Duty Nursing from the Viewpoint of the Physician."

The Detroit Academy of Medicine held a joint meeting, April 21, 1921, with the Detroit Medical Club in the Scientific Building of Parke, Davis & Co. Through the courtesy of Doctor E. H. Houghton (President of the Detroit Medical Club) a cafteria luncheon was served. This was followed by a paper by A. D. Emmettt Ph. D. on "The Vitamines with a Physiological Demonstration."

Senator John W. Smith of Detroit introduced a bill in the State Senate to abandon the Coldwater School as a clearing house for orphans and to make it an adjunct to the Lapeer Home, thus permitting the counties to place their orphans without passing them through this school.

The Board of Managers of the new Highland Park General Hospital consists of Doctors George R. Andrews, William N. Braley, L. E. Clark, S. C. Crow, D. M. Greene, Mr. F. J. Barrett, Mr. E. C. Davis, Mr. L. J. McKenney, Mrs. L. W. Snell and Mrs. W. C. LeFebvre.

A. J. Burr, a senior student at the Detroit College of Medicine and Surgery, died suddenly April 7, 1921. He is survived by his widow, a son and two brothers(Doctor George C. Burr of Detroit and Lyle Burr, a medical student at the University of Michigan.)

The President of the Wayne County Medical Society, Doctor Harold Wilson, has appointed the following Election Committee for 1921: Doctors A. L. Richardson (Chairman), A. E. Catherwood, H. F. Dibble, E. H. Sichler, R. Walker and J. H. Dempster.

Thursday evening, June 16, 1921, a smoker and vaudeville will be given by the Alumni Association of the Detroit College of Medicine and Surgery at the Wayne County Medical Building. Following this the Annual Meeting will be held and a buffet lunch will be served.

Doctor P. C. McEwen has spent the last few months in Chicago taking a course in diseases of

the eye, ear, nose, and throat. He returned to his old offices in the Detroit Opera House Block, April 1, 1921 and will specialize in the diseases of the organs named above.

The City of Detroit is badly in need of a new small pox ward at the Herman Kiefer Hospital. The present building is an old frame structure, badly arranged and grossly inadequate for its present purpose.

The following physicians spoke in favor of the Closed Hospital Bill before the Senate Health Committee, March 30, 1921: Doctors Angus McLean, C. D. Brooks, and John Harvey of Detroit and A. M. Jones of Bay City.

The Detroit Chapter of the Sons of the American Revolution gave a dinner at the Detroit Athletic Club, March 29, 1921. The following physicians were present: Doctors C. W. Hitchcock, H. D. Jenks, Ray Connor, M. B. Coolidge and F. M. Barker.

The Detroit Society of Internal Medicine met March 28, 1921 at the University Club. Doctor William Donal was the Main Presenter (Subject "Pain"), Doctor C. G. Jennings was Literature Presenter (Subject "Typhoid Fever") and Doctor H. M. Rich gave the Case Report (Subject "Hypersensitiveness").

Friday, June 17, 1921, Commencement Exercises of the Detroit College of Medicine and Surgery will be held in the Arcadia Auditorium. Colonel William L. Keller, Chief Surgeon of the Walter Reed Hospital, Washington, D. C., will talk on "Medical Service at the Front in the Late War."

Doctor and Mrs. Carl Bonning and Miss Bonning, who have been spending the winter in Pasadena will return to Detroit about June 1, 1921. After a six weeks' stay, they will leave for the North Shore, Mass., for the rest of the summer.

New York State has legislated small pox out of existence. There are some people in Michigan who still insist in the name of freedom on the privilege of having small pox. It is up to Michigan to decide through its law making body whether small pox shall go or stay.

The Detroit Academy of Medicine listened to a delightful talk by Doctor Hugh Cabot of Ann Arbor on the "Management of Small Renal and Uretral Calculi," March 22, 1921. After the discussion was over, Doctor and Mrs. Fred Kidner served refreshments.

The Annual Report (1920) of the Board of Medical Examiners of the State of California has just reached us. Their total income for the fiscal year of 1920 was $86,900.80 (Reciprocity fees, $53,324) and their total expenditure was $61,060.99.

The Michigan Branch of the American Urological Association under the Presidency of Doctor Fred Cole, gave a complimentary dinner to Doctor Fred W. Robins of Detroit, March 29, 1921 at the Detroit Athletic Club. Doctor Robbins organized this Branch and was its first president.

The Detroit Otolaryngological Society met April 20, 1921, in the Wayne County Medical Society Building. Doctor Thomas Hubbard of Toledo read a paper on "Unusual Types of Dyspnoea." Doctor H. W. Peirce is President and Doctor H. L. Simpson, Secretary for this year.

Doctor and Mrs. Angus McLean, Miss Marion McLean, and Mrs. Oren Scotten of Detroit will sail June 30, 1921, for France where they will visit Mrs. McLean's brother, Mr. Robert Scotten. Mr. Scotten is connected with the American Embassy in Paris. Doctor McLean and his party will spend the entire summer in Europe.

Doctor J. G. Van Zwaluwenburg of Ann Arbor was elected April 19, 1921, President of the Michigan Trudeau Society and Doctor E. B. Pierce of Howell Vice-President at their meeting in Flint.

Doctor and Mrs. Blodgett of Detroit and their children will spend the month of June at the North Shore. Doctor Blodgett will attend the meeting of the American Medical Association in Boston and the 25th re-union of his class at Harvard.

Doctor James Inches of Detroit was one of the passengers on the giant aeromarine flying craft, "Santa Maria" in its trip from Miami, Florida, to Washington, D. C. They were 16 hours in the air. The trip was made the middle of April.

The following physicians have joined the recently organized Plum Hollow Golf Club: Doctors W. M. Braley, G. B. Stockwell, G. D. McMahon, W. F. Seeley, G. E. Fay, C. C. Jordan, J. C. Dodds, Stewart Hamilton, W. G. Hutchinson, G. J. Reberdy, H. W. Hewitt and R. E. Loucks.

Doctor Edward D. King was married April 13, 1821 to Miss Florence Mulqueen, both of Detroit. Their wedding trip will last one month and will include stops in Chicago, New York and Atlantic City.

Doctors I. N. Brainerd and F. J. Carney of Alma, W. E. Barstow of St. Louis and E. M. Highfield of Riverdale attended the Saginaw County Medical Society to hear Dr. John Monohan and his paper on Diverticulitis, April 12.

Does merit, mere plodding merit, invariably bring reward? Does it get your name on peoples' lips? Pep up your serious stuff and cash in on the publicity thereof (Wayne County Medical Society Bulletin, April 18, 1921.)

Doctor Mary Thompson Stevens was re-appointed April 11, 1921, a member of the Board of the Detroit House of Correction by Mayor James Couzens. The appointment is for a term of 4 years ending March 1, 1925.

The Detroit Ophthalmological and Otological Club met April 6, 1921 at the Medical Building. Doctor William MacDonald gave the members a dinner and then read a paper on "A Standardized Treatment for Acute Suppurating Otitus Media."

Among the patronesses for the Dartmouth College Clubs' Concert, given April 7, 1921 in the Statler Hotel, Detroit, were Mrs. A. D. Holmes and Mrs. C. W. Hitchcock, wives of two of Detroit's prominent physicians.

The later part of March, Health Commissioner H. F. Vaughan of Detroit, urged war against the fly. Every fly Swatted at that time means about 137,000,000 less next August according to the Commissioner.

Doctor William B. Hinsdale of Ann Arbor was elected delegate at large to the National Congress at the Annual Meeting of the State Society of the Sons of the American Revolution, held in Detroit April 15, 1921.

Under the terms of the will of J. Harrington Walker of Detroit, the Children's Free Hospital receives $25,000; Harper Hospital, $10,000; Girls Holiday House, $2,500 and the Franklin Street Settlement, $1,000.

The summer meeting of the Radiological Society will be held in Boston June 3, 4, 1921, giving the members an opportunity to remain over for the meeting of the American Medical Association, June 6, 7, 8, 9, 10, 1921.

The Endowment Committee of the Wayne County Medical Society were pleased with the results of the letter sent to the members in February. Many remittances were made.

The infant mortality for Detroit for February and March was the lowest it has been in 5 years. The rate was 90 per thousand as compared with 195 for 1920, 134 for 1919 and 108 for 1918.

The new Highland Park General Hospital was formally opened to the public, April 16, 1921, with a flag raising ceremony. The first patients were received April 18, 1921.

The proposal to bond the City of Detroit for $3,000,000 to construct a Municipal Hospital was carried overwhelmingly in the April election. The vote in favor of it was nearly 3 to 1.

The State Legislature of Oregon passed Feb. 19,1921, a bill requiring that women as well as men seeking marriage licenses, shall be examined as to their mental and physical fitness.

Former members of the Base Hospital Unit No. 36, A. E. F., commanded by Col. B. R. Shurly, gave a masquerade ball, April 1, 1921 in the Detroit Board of Commerce Auditorium.

The Detroit Medical Club met March 17, 1921 at the Medical Club. Doctor F. T. F. Stephenson read a most interesting paper on "The Crime Sheet of a Life Insurance Co.

Col. Hubert Work of Colorado, President of the American Medical Association, has been appointed First Assistant Postmaster-General in the Harding Administration.

Doctor Mary Thompson Stevens of Detroit attended the 36th Annual Meeting of the Association of Collegiate Alumnae, held in Washington the latter part of March.

Mrs. Cooley, wife of Doctor Thomas B. Cooley of Detroit, and son Thomas left the early part of April to visit Mrs. William Kales in Tryon N. C.

On March 21, 1921, the Wayne County Medical Society put itself on record as in favor of the new Detroit Municipal Hospital. The resolution favoring this was caried by a large majority.

Doctor Fred Meader of the Detroit Department of Health states that one-half of the deaths in Detroit are caused by tuberculosis and from 30 to 40 new cases are reported daily.

Doctor James Inches of Detroit and some of his friends left March 25, 1921 for Miami, Florida. They were gone about two weeks and spent most of the time fishing.

Doctor and Mrs. Lowrie returned March 26, 1921 to Detroit after a month's trip including stops at Jamaica, Havana and Panama Canal Zone.

The State Department of Health has maintained since September 1920 a traveling clinic which has visited 23 counties and 69 cities and villages to date.

Miss Jenks who has been spending this winter with her brother, Doctor H. D. Jenks, of Detroit,

THIRD SESSION

May 26th, 1:15 P.M.

Board of Commerce Auditorium

1. Election of Officers.
2. Present Status of X-ray Therapy.
   V. M. Moore, M.D., Grand Rapids.
3. General Indications for the Use of Therapeutic Pneumothorax.
   Herbert M. Rich, M.D., Detroit.

   Abstract of Paper for Discussion.

   Fundamental reasons for the adoption of this method of treatment. Clinical conditions in which it has been found useful. Dangers and limitations.
4. Vaccine Treatment of Asthma.
   A. D. Wickett, M.D., Ann Arbor.
   Cecil Corley, M.D., Ann Arbor.
   J. T. Connell, M.D., Ann Arbor.

   Abstract of Paper for Discussion.

   I. Introduction.
   II. Selection of Material for Vaccine.
   III. Preparation of Vaccine.
   IV. Dosage.
   V. Case Reports.
5. Measure to Further Reduce the Mortality of Diphtheria.
   F. M. Meader, MD., Detroit.

   1. The ratio of cases to deaths since the use of antitoxin has become general has decreased to a certain level below which in recent years it has been impossible to go.

   2. Suggestions as to why deaths from diphtheria occur:

   a. Delay in diagnosis.
   b. Delay in administration of antitoxin.
   c. Presence of a powerful toxin producing organism.
   d. Clientelle ignorant of the importance of early diagnosis.
   e. Children of clientelle not immunized against diphtheria.

   3. A large number of susceptible children exposed to infection.

   4. Immunization of susceptibles by the use of toxin antitoxin.

   a. Experience in certain foreign cities.
   b. Experience in New York City.
   c. Experience in Detroit.

   5. Recommendations.
6. A study of 62 Cases of Mitral Stenosis.
   Walter J. Wilson, M.D., Detroit.

   Abstract of Paper for Discussion.

   Age incidence. Etiology, Diagnosis. Symptomatology. Complications with special reference to arryhythmias. Treatment. Illustrated with lantern slides.
7. Digitalis Therapy.
   J. B. Whinery, M.D., Grand Rapids.

Tentative Program of the Annual Meeting of the MICHIGAN PUBLIC HEALTH ASSOCIATION

To be held in conjunction with the annual meeting of

Michigan State Medical Society, Bay City, May 25-26, 1921.

General Session, Wednesday, May 25, 1921—1:15 P. M.

1. Address: "The Influence of Disease on History." By Dr. Mazyck P. Ravenel, Columbia, Missouri. President American Public Health Association.
   Discussion: Dr. Guy L. Kiefer, Detroit.
2. Address by Dr. C. C. Slemons, Grand Rapids. President Michigan Public Health Association.
3. "The Prevention of Diphtheria."
   Dr. J. A. Humphrey, City Health Officer, Lansing.
   Discussion: Dr. C. F. Neafie, Health Officer, Pontiac, Dr. C. P. Drury, Health Officer, Marquette.
4. "The Relation of Community Clinics to Public Health." Dr. William DeKleine, Health Officer, Flint.
   Discussion: Dr. David Littlejohn, Health Officer, Ishpeming; Dr. A. H. Rockwell, Health Officer, Kalamazoo.
5. "School Inspection." Dr. C. J. Addison, Health Officer, Muskegon.
   Discussion: Dr. T. E. McGurse, Health Officer, Port Huron; Dr. A. A. Hoyt, Health Officer, Battle Creek.
6. "The Public Health Problem of Throat Infections." C. C. Young, Ph.D., Director of Laboratories, State Dept. of Health, Lansing.
   Discussion: Dr. George F. Clark, Health Officer, Saginaw; Dr. C. W. Olsen, Health Officer, Ironwood.

Section Meetings, Thursday, May 26, 1921—9 A. M. to 1:15 P. M.

Section A 1. Public Health Administration,
Chairman, Dr. R. M. Olin, State Health Commissioner, Lansing.
2. Vital Statistics,
Chairman, Mr. William F. Petrie, Department of State, Lansing.

Section B 1. Child Hygiene,
Chairman, Dr. F. M. Meader, Department of Health, Detroit.
2. Public Health Nursing,
Chairman, Mrs. Lystra Gretter, Detroit.

Section C 1. Sanitary Engineering,
Chairman, Prof. William C. Hoad, University of Michigan.

Section D 1. Laboratory,
Chairman, Dr. C. C. Young, State Department of Health, Lansing.

The proposition of holding section meetings is more or less of an experiment, and the success of such meetings will depend largely upon how well the annual meeting is attended.

In order not to sub-divide the groups too far, it has been decided to join the sections on Public Health Administration and Vital Statistics; likewise the sections on Child Hygiene and Public Health Nursing. Each subject, however, is assigned to a program chairman and it is anticipated that the respective chairmen will consult each other in the preparation of their programs.

ENTERTAINMENT

Tuesday Evening, May 24th, 9:00 P.M.

Informal reception and smoker, tendered by the profession of Bay County to all visiting members, Chamber of Commerce.

Wednesday, 10:00 P. M., May 25th—Elks Club.

FOR THE LADIES

May 24, 8:30 P. M.—Theatre Party.
May 25, 10:00 A. M.—Auto Ride and luncheon.
May 25, 5:30 P. M.—Dinner.

REGISTRATION

The Registration Booth will be located in the Chamber of Commerce Building and will be open from 1:00 P. M. to 8:00 P. M., May 24; from 7:30 A. M. to 7:00 P. M., May 25th; from 8:00 A. M. to 3:00 P. M., May 26th.

Delegates must present their credentials to the Credential Committee of the House of Delegates.

LOCATION OF BUILDINGS

First Baptist Church—Center and Madison Avenues.

Board of Commerce Club—Center and Jefferson Street.

Elks Temple—Center and Adams Street.

Masonic Temple—Sixth and Madison Avenue.

HOTELS

Wenonah
Kimbark
Imperial

GARAGES

Bay City Bus Company.
Special rates for this meeting.

LOCAL COMMITTEE ON ARRANGEMENTS

RECEPTION: Doctor P. R. Urmston, Chairman, with entire Bay County Society as members.

ENTERTAINMENT: Doctors Perkins, Hauxhurst, Gallagher, Gustin Baird and Crance.

LADIES' ENTERTAINMENT: Doctors Williams, Ely, Tupper and wives of Society members.

EXHIBITS: Doctors Loud, Stone, Trumble and Huckins.

HOTELS AND ACCOMMODATIONS: Doctors Dumond, Slattery, Foster, Zaremba, and Stewart.

LOCAL ARRANGEMENTS: Doctors Grosjean, Baker, and T. A. Baird.

PRINTING: Doctors L. S. Ballard, McEwan, Bergstrom and Lawrence.

PRESCRIBING FOR THE DOCTORS.

Anger is stirring some of the medical fraternity over the case of the little Waukegan, Ill., girl who was reported in the daily press as having been cured of incessant talking by a chiropractor. Through the weekly bulletin of the Wayne County Medical Society, it appears that the American Medical Association has been investigating the matter, and has published a statement that the girl had epidemic encephalitis—otherwise, brain fever—that she was not cured, and that the chiropractor was discharged by the family after he had failed to restore her to anything resembling health.

The most effective portion of the complaint is that the daily papers, besides publishing long articles and features about the "miracle," accepted paid advertisements from the chiropractors, and did not retract or stop printing the advertisements after the chiropractor's "cure" turned out a fake, as the A. M. A. charges it to have been.

Obviously, there is room enough for severe criticism of the people who took the money for space in which the "miracle" was exploited unless they had made careful investigation of the claims set forth. We may also fairly blame papers which may have really refused to print a correction about the matter. But we doubt very much whether one paper in ten, throughout the country, has ever heard there was a correction. They would never discover it through the Journal of the A. M. A., a periodical which is seen by very few excepting physicians. Certainly not many Detroiters, editors or otherwise, would ever see the bulletin of the Wayne County Medical Society. One may almost say that no more effective way of concealing the truth could be found to to print it only in such organs as these.

It is surely unfortunate if quacks, with the assistance of yellow journalists, deceive the public. But the doctors cannot expect the public, nor the average newspaper editor, to know technical truths intuitively. If they would drop some of their antediluvian ideas about the ethics of publicity and help instruct the public through the press, there would be far fewer incidents which would stir their choler. They might also find the public more responsive to their views on other matters affecting the profession.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

A. L. Seeley, Chairman ----------Mayville
L. W. Toles ----------Lansing
R. S. Buckland ----------Baraga

Editor and Business Manager
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Grand Rapids, Mich.

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Associate Editor, Detroit.

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All communications relative to exchanges, books for review, manuscripts, news, advertising, and subscription are to be addressed to F. C. Warnshuis, M.D., 4th Floor Powers Theater Building, Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5.00 per year, in advance.

May, 1921

Editorials

ETHICAL ADVERTISING.

Probably never before in the history of medicine was there more need for clear thinking on the subject of publicity, than at the present time. Medical specialism may be classified into anatomical specialties, such as gynecology, laryngology, neurology and the laboratory specialties such as X-ray, bacteriology, clinical microscopy or pathology. The latter class of specialty is being exploited by money interests, who resort to the advertising pages for their personal agrandizement. A well-known hospital with salaried medically trained employes recently used the advertising pages of the public press to reach the eyes of the people.

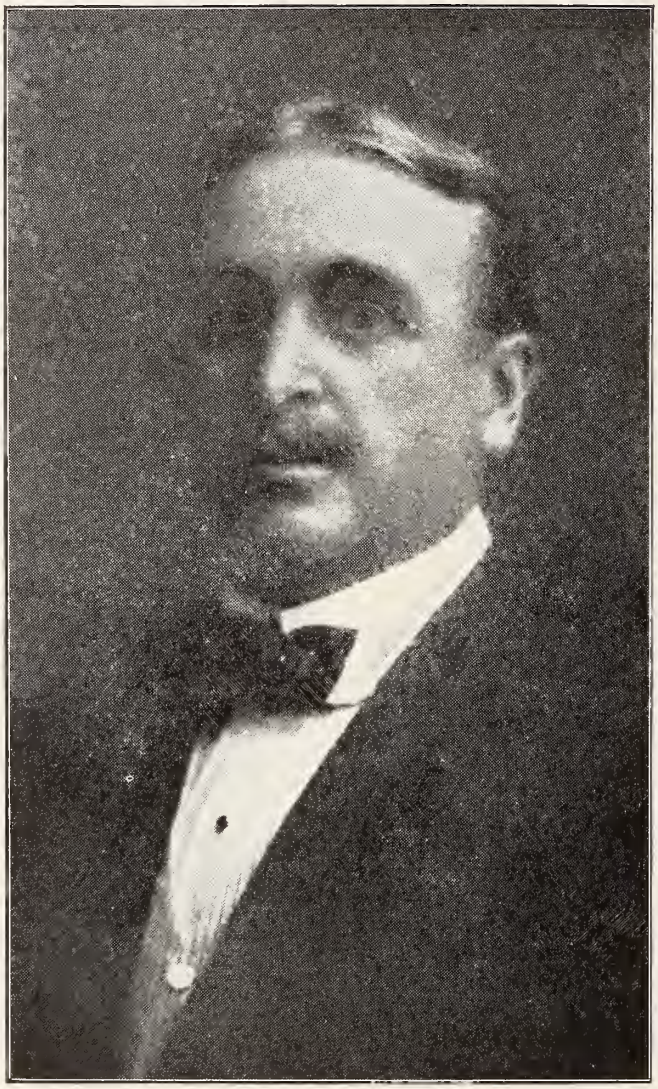
This leads to the question, What is Ethical Advertising? The time was when all professional men wore the badge of their profession in their personal attire. A relic of this custom still remains in the vesture of the clergyman. The physician's handbag and the emblem on his automobile are in a sense advertising. The term Doctor or the M.D. after his name are constant reminders of the medical man's vocation. They are, however, legitimate means of attracting the attention of the public to the doctor's calling. The publication of papers in professional journals are likewise legitimate, and the mailing of reprints of published articles is likewise considered within the bounds of propriety, as is also the publication of books. The medical book if carefully and authoratively written is simply carrying the idea of the reprint to greater permanence and completeness. This also affords the writer legitimate publicity. The delivering of addresses before medical societies is in the same category as the writing or scientific papers and books. Teaching in medical colleges is another form of publicity, but the best form of advertising is thorough, honest and conscientious work. This is ethical advertising first because any reference by way of self-praise of the author or doer is eliminated and it is advertising (ad, to and verto, I turn) inasmuch as the attention of the medical profession is turned towards or drawn to the particular kind of work the writer or speaker is doing.

A merchant may advertise his goods and if he is strictly within the bounds of truth his advertising is ethical. There is a difference between proclaiming one's personal ability and urging on the attention of a prospective buyer the superiority of one's merchandise.

Any form of self praise is objectionable whether it appears in a medical journal, newspaper or theological publication. It is the tendency to extol ones personal merits that has made advertising of professional services such a delicate and questionable subject.

Now is the time that the profession should study the social and economic phase of medical practice. If the profession is to allow itself to be exploited by capitalistic interests there is no telling where such exploitation will end. The next step will be the organization of stock companies and by means of advertising campaigns, the individual doctor will be relegated to obscurity. Are we going to stand idly by and watch the commercializing of the most human profession in existence?

J. H. Dempster.



ANGUS McLEAN
President

ANNUAL MEETING.

This issue contains the programme for our annual meeting in Bay City. We are also publishing a pictorial and word description of Bay City. Our section officers have succeeded in arranging sectional programmes that promise well for profitable sessions. It will be noted that the essayists are all Michigan men and the subjects are most practical. We are certain that the speakers will meet up to a high standard and that the discussions will impart that benefit which always results from the exchange of our personal experiences.

The profession of Bay City has perfected splendid arrangements for the care and entertainment of those in attendance. Our comforts will be well attended to. We know a most cordial reception awaits.

The discussion on Radium by Dr. Curtis Burnam, of Baltimore, was arranged for by President McLean. Dr. Burnam is the recognized authority on radium in this country. We have every reason to believe that he who hears Dr. Burnam will receive a practical understanding of the value and therapeutics of radium.

We were fortunate in being able to secure Dr. Burnam for this meeting.

There are a number of other good things in store. We can but urge that each member arrange to attend. Our Bay City meeting will stimulate you to better work. Write now for your reservations and plan your work so as to spend the entire three days in Bay City. For details refer to the programme

COMPULSORY HEALTH INSURANCE.

We are publishing in this issue a stenographic report of the conference held in Chicago by the Physicians, Dentists and Pharmacists of that city. The main speaker was Dr. O'Reilly of Brooklyn. The doctor is the President of the New York organization of physicians, dentists and druggists that accomplished, by its organizational work, the defeat of the Davenport bill that sought to introduce Health Insurance in New York.

We are desirous of keeping our members informed as to the incidents that are taking place in this attempted effort to institute this form of state medicine. The proponents are persistently active in their campaign. As a profession we are too complacent. We are not pursuing a course characterized by concerted action to defeat the ends sought by these would be reformists. The need presents more pressingly than ever that we manifest a keener interest in the solution of this problem. It is by no means a vague possibility. There is a need for wide dissemination of information. There is greater need for telling action on the part of our members.

This past week we read of a statement made by a professor of the Socialogical Department of our University in addressing a lay audience in Grand Rapids in which he declared that unless physicians reduced their fees there would be no alternative but state medicine. This is but another instance of a member of the University seeking to dictate the policy of physicians. What we want to know is why not reduce attorney and engineering fees and the salaries of faculty members? Evidently this speaker has been converted to the Ann Arbor idea, or, is he but one of a corps being sent out designedly to agitate the subject and enroll public support by appealing on the basis of financial expense? We are just wondering wherein the connection, if any, exists.

Then again in this issue we are publishing an amendment introduced in the legislature this week. This amendment seeks to establish fees for the professional services we render to patients in a hospital. That is but the beginning of price marking.

News also reaches us that in the Hospital Plan at Ann Arbor the salary of the full time attending professor shall be $25,000 per year as a maximum limit.

And so we might continue to cite incidents that appear with increasing regularity and indicate that while we remain "at rest' our future is being shaped without effective protest. How long do you propose to remain silent?

LEGISLATIVE INFLUENCE.

Reference has been frequently made to the advice given to certain New York physicians "to go home and organize, etc." The implication is made that organization is all that is required to secure legislation influence and prestige. That organized effort is effective to a degree is recognized; but organization is not wholly self sufficient. It is but a feature of the problem of securing recognition.

We have never been able to understand why doctors collectively command so little recognition in administrative and legislative circles. In fact, they are received with a certain degree of distrust and tolerance; frequently they are openly ignored and sometimes ridiculed or imposed upon. Of course we recognize that collectively we have never taken the pains to draw back the curtain of our code of ethics and give the public a clear vision of our inter-relationship. We have too frequently thrown out a smoke screen and beclouded our ideals and purpose. We have in silence permitted misconstruction and have not deigned to correct the interpretation of our motives as they were construed by lay or even professional individuals imbued with selfish and ulterior motives. Basicly we have remained too self centered and modest. We have been content to allow the years to pass in pacifist attitude seemingly expectant that our virtues at some time or other would blossom forth in diapason volume, thus automatically creating a niche for us in the Hall of Fame. In all of our relationship to the public in the past decade our dianoetic attitude has been diamagnetic to the progress of all social, civil and industrial activity. That may be putting it a little strong. Nevertheless we are of the opinion that fundamentally this premise is correct. We are indolent and too self satisfied to indulge in refutation as a collective group.

We did not start out to recite an indictment, what we proposed was to acquaint our members with the attitude that legislatures throughout the country are recording against the regular medical profession. The foregoing paragraph injected itself and we are letting it stand. Possibly it may serve a purpose.

The Texas legislature, because of splendid work by Texas doctors, has rejected a bill giving privileges and license to the cults. It has also passed amendments enhancing its medical practice acts and thus protected the people of Texas from charlatanism. In the legislatures of other states a grist of bills dealing with medical matters and which let down the bars, have been introduced. The fate of these bills are still in the balance. They are indicative, however, of an increasing sentiment to attack present medical standards and to remove their protective (to the public) provisions. At their hearings in committees, the cults, scientists and "freedomites" are well represented in members and by well paid attorneys and lobbyists. The doctors, while present and heard, receive scant recognition. Their representation and arguments are twisted and falsely interpreted.

Such are the facts—we might enter at length in specific citation of actual instances. Just now we are refraining from doing so because we are merely seeking to inspire to activity our county societies to a discussion of our legislative influence and interests. We urge a frank consideration of the subject. We look for definite expression. We trust that some policy will be formulated. We hope that delegates will be instructed to present some plan of activity. We then expect our House of Delegates to continue the discussion and determine upon a definite plan of procedure that will wipe out this legislative attitude to the doctors.

We may not be very much embarrassed by adverse legislation enacted by this year's Michigan legislature but if we continue in our present lack of interest God pity us in 1923. If you do not believe us, go down to Lansing, see and hear and become convinced. A delegation or committee of doctors in Lansing today is followed by the same result as does when you wave a red flag before a bull—wild is putting it mild. What are you going to do about it in 1923?

REDUCED RAILROAD FARE.

We have been able to secure a rate on all railroads of one and one-half fare for the round trip on the Identification Certificate plan. This will mean a desirable saving of travel expense. To obtain this rate the following procedure is necessary:

(1) *Send to F. C. Warnshuis, Powers Theater Bldg. Grand Rapids, Mich., a self-addressed, STAMPED envelope. Note: A self-addressed, stamped envelope.*

(2) *We will mail you a Certificate, entitling you to reduced railroad fare.*

(3) *Present this certificate to your local agent when purchasing a ROUND TRIP ticket.*

(4) *Your return ticket must be validated at Bay City.*

For the convenience of Detroit members we are sending a supply of certificates to the County Secretary from whom they may be secured.

Remember you must have this certificate to secure this rate. Don't forget the stamped, self-addressed envelope when writing this office.

ANNUAL MEETING OF MICHIGAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS.

The Michigan Association of Industrial Physicians and Surgeons will present a very interesting and instructive program on the afternoon of May 24th, at Bay City, Michigan.

The Association was organized last year in Kalamazoo, and it is the desire of its members to have one afternoon during each state society meeting devoted to industrial medicine and surgery.

Every doctor, whether he is in general practice or a specialty, has work under this classification and the papers and general discussions will make these meetings very interesting and valuable.

Dr. Ralph W. Elliott, manager of the Medical Department of the National Lamp Works at Cleveland, Ohio, will address the society on some surgical phase of his work.

Dr. Francis D. Patterson of Philadelphia, secretary of the American Asociation of Industrial Physicians and Surgeons, will be present and give an address on some medical subject pertaining to his work.

Dr. H. N. Torrey, chief of the medical staff of the Michigan Mutual Liability Company, and president of the Michigan Association, will

give a resume of what has been accomplished by the Society during the past year.

As this meeting will not conflict with any other section, it is hoped that all visitors at Bay City will attend.

THE PASSING OF THE PATHIES.

It is not without considerable hesitancy that we enter upon an editorial discussion of this subject. It is a topic that has been before us for some time but for one reason or another has been postponed for comment. Current events now press the timeliness of a frank statement. Circumstances call for the consideration of the subject and indicate the need of pronouncement as to the attitude of the profession as a whole. In engaging in this discussion we renounce every semblance of a harping criticism. We have no personal or collective grievance. We are casting no reflections upon individuals. We seek no quarrel nor do we desire to inspire one. What is desired is a recognition of present day conditions.

It must be admitted that the days of pathies are past. Medical progress, medical investigations have clearly demonstrated that there is no single system or school of medicine that is all sufficient. Our present knowledge demonstrates that allopathy, (so-called) homeopathy, eclecticism, physio-medic, or of our other old classification do not by their theories or therapeutics present means or measures that will prevent, alleviate, or cure human ills, if recourse is had to their restricted and limited practices. He who seeks to meet up to his professional responsibilities cannot, with honesty, subscribe and practice whole-hearted, exclusive allegiance to any one pathy. No physician can be a loyal, allopath, eclectic, or homeopath and render modern service or give dependable advice to his patients. There is no pathy that is tenable in itself. It is recognized that in each of these schools or pathies there has been and still is much that is good and much that will remain beneficial—principles and practices which we all employ at various times and which are definitely indicated. There is also much that should and must be discarded for reasons that are apparent in the light of our progress. We do not believe that there is need for a lengthy discussion of this premise. It is accepted by all who have remained abreast of the times and who have risen above a narrowness of viewpoint. The hide-bound days are past.

Several homeopathic colleges have closed in the past few years on acount of lack of students and financial support. Two have closed within the past few months. In the leading and only homeopathic Chicago College there are but fifty students. In the Homeopathic Department of our Michigan University we understand there are but forty students enrolled, that they are confronted with a difficulty of securing efficient faculty members. No school can be administered efficiently or supported with but forty students. The alternative of closing their doors is pressing. What shall be done is the question that confronts these men.

In Michigan the subject is being discussed by the Regents and the Legislature. We are all more or less familiar with the existing situation. We understand also that the State Homeopathic Societies have discussed the present state of affairs and some have gone on record vigorously opposing the closing of the Homeopathic Department at Ann Arbor. In doing so, are they not seeking to resist and prolong the inevitable? Is there any just reason for continuing that department?

We readily perceive that he who graduated in homeopathy and has practiced its teachings must be loath to concede that his school of practice must, in our present knowledge of practice, be submerged or absorbed by one uniform educational standard. We recognize that it will not be easy for a disciple to witness the passing of his Alma Mater. This is not a time for sentiment. The greatest good will result from a passive recognition of the inevitable and acceptance of the change that progress accomplishes. Individuals there will be who will resort to various measures more or less honorable in an attempt to continue their individual pathy. They are the ones who in recent years have subscribed to their pathy for purely financial reasons and who have held aloof from the general profession because of fear of losing consultation fees from their "pathic" conferors. For such we have no concern. To the real men in homeopathy—its leaders—we suggest this plan. It is recognized that the therapeutics of homeopathy contain the only reason or vestige for its existence. That this therapy can in part be of valuable aid to every physician and a familiarity with its principles is desirable for him who practices medicine in the immediate future. In view of this let there be created a chair of homeopathic therapy in our Medical Department and so salvage that which is worth while from our present homeopathic department. Having reclaimed this and providing for its perpetuation, close the present inadequate and below recognized standard homeopathic department of our University. The ex-

pense of its continuance is no longer justified.

As we stated in the beginning we are seeking no quarrel. Our aim is an acceptable solution of a condition. As a profession we cannot afford to be divided or engage in internal strife. Grave conditions threaten and assail our status before the public. A united front must be formed. We must openly come forth and demonstrate that we who are physicians in Michigan have no "isms" or "pathies." That we employ and follow in our professional activities that which knowledge and experience proves to be of the greatest benefit to the individual and the public. It is for these reasons and because of the revelations that time has developed that we are suggesting that the passing of the pathies be made the occasion for a more closely affiliated relationship of all graduate physicians.

Editorial Comments

SELLING HEALTH.

We have taken the liberty of quoting somewhat freely from an article of M. Charles Cason in the March 30, 1921 issue of the Outlook.

Unusual and forceful methods were employed in "selling health' 'in Lee County, Mississipppi. With the help of the Rockefeller Foundation a model health campaign was instituted to last for one year. Everybody co-operated in this.

The County had 1,500 road signs set up, heralding itself as a model health County and prizes were offered for health slogans ("Chew Your Food, You have No Gizzard" earned the first prize for a little school girl.) Mass meetings, picture shows, health literature and a rural motor clinic were other methods of publicity. They even covered a circus elephant with health banners as a propaganda. Free moving pictures were presented for rural churches and schoolhouses.

The result of this campaign is that the people of Lee County have developed a new sanitary and a new social sense and their enthusiasm has freed the County from preventable diseases and dangers of unsanitary things in the three months since it started.

The following concrete things have been done: 2,712 homes have been surveyed, 8,907 individuals have been physically examined, 200 people have been vaccinated against typhoid fever, 1,100 school children have been medically inspected, an epidemic of scarlet fever has been controlled, 30,000 pieces of literature have been distributed and 52 public meetings have been held.

What is needed is a more general recognition by all doctors that to be succesful and minimize diagnostic errors more detailed attention must be given to thorough and systematic examinations of patients. In addition greater use must be made of laboratory tests. Public confidence will be secured and held by a low average of errors. A busy morning, unmade calls and arrival at the office to find a large number of patients waiting makes for a tendency to superficial examinations and faulty diagnosis. We are too prone to begrudge the time to strip a patient and thus become careless. We constantly lay ourselves liable to mistakes by adopting such an attitude in our office work. True we may put in longer hours of work but in the end we will have just reason to be proud of our accurately made and substantial diagnoses. We urge a systematic observance of a careful history, complete physical examination, laboratory examinations and scientific therapy as our routine attendance and service for those who consult our members. More thoroughness is decidedly indicated.

Attention is directed to our advertising pages which again contain new advertising copy. We are greatly desirous that these as well as our regular advertisers be made to feel that results will follow the use of our advertising pages. Will you not write to them and patronize these firms who thus support your Journal?

In our zeal to early detect tuberculosis we should not be led astray and accredit all pulmonary physical signs, other than in the pneumonias, as being tuberculous in type. We must differentiate those pulmonary signs that result or occur by reason of cardiac disease or involvement and which produce a pulmonary circulation change, which gives rise to altered breath sounds. Dr. J. S. Pritchard, of Battle Creek, has just favored us with a reprint of a timely article he wrote upon this subject.

Criticism is easy but to construct is difficult. This may appear to be a somewhat trite comment but is characteristic of a good many members. Information is at hand that this is the reason some of our local officers and committees hesitate in engaging in greater activity. An officer or member is loath to become aggressively active if his efforts are rewarded solely by harping criticism. No offense is ever taken from constructive criticism—it is the jealous type, obstructive criticism that discourages progress. There has been quite too much anvil chorus performances—let us turn over the page and practice a few landatory anthems. Boost your local officers, subscribe your time in assisting—not knocking.

The Genesee County Society, with commendable spirit, purchased three full sets of the pamphlets of the American Medical Association dealing with nostrums, quackery, fraudulent advertising, cults, etc., and presented these sets to the editors of the Flint newspapers. We understand that the first net result has been that one of the Flint papers now refuses to accept the advertisements of chiropractors and nostrums. What we need is similar action by other societies of our organization. We have a definite duty in the education of the public. Shall we not perform it? We congratulate the Genesee County Society

upon their undertaking and the result that has ensued. Will you not follow this example in your county?

As far as we have been able to learn, the Muskegon County Society is the only organization that secured the publication of the exposure of the recent fake chiropractic ad wherein it set forth that one of their number had cured a case of encephalitis lethargic. The story was published in the *Muskegon Saturday Night* after the local daily Scripps Booth paper had refused to state the facts and offered to sell its advertising space to the society as the only way in which they would provide publicity. We felicitate the members of the Muskegon County Society for having thus locally refuted a dishonest advertising statement. May all our component societies become more active in the educational movements that will enlighten the public. Well done Muskegon.

Remember the dates, May 24, 25 and 26th—Annual Meeting, Bay City.

Radium is now available for therapeutic use in several localities in Michigan. The discussion on Radium by Dr. Burnam of Baltimore at our Annual Meeting in Bay City, therefore, promises to be of additional interest. Don't miss this feature.

The County Secretaries will meet with the Council at a luncheon at noon on Thursday. County Secretaries are urged to be present for this conference.

The appointment of President Work of the A. M. A. as First Assistant Postmaster General is a pleasing recognition. Possibly in another generation of physicians there may be witnessed the election of one of our profession to the high office of President.

The reservations for rooms will be well taken care of by the Bay City Entertainment Committee. No one need remain at home for fear of not being able to secure accomodations. However, to avoid confusion, write now and give the Committee a chance to better care for you.

A bill to secure practice rights for chiropractors was defeated by the Texas legislature. We understand that in Iowa the legislature of that state has granted chiropractors the right to practice surgery. Watch the surgical mortality rise in Iowa.

Some there may be who will claim that a medical journal should not editorially comment upon political and governmental problems and issues. With such we must respectfully differ. While medical journals may primarily be scientific publications, still as organs representative of a profession it surely is consistent and proper to make passing comment upon national and state affairs when such comment is characterized by non-partisanism—when it represents expressions of loyalty as well as for the furtherance of the safeguarding of our national existence. As occasions present such comment may be expected to appear in these columns. At no time will they be permitted to give expression in support of a given party, individual, cult, creed or fraternity. They will be confined to an effort to inspire greater loyalty and better Americanism. In the furtherance of that one object all else must become secondary. As an organization we owe that support and that loyalty to our flag and our country. We proffer no apology for such an editorial attitude.

The American Legion pledges itself to a greater development of Americanism. There is need for a greater exhibition of Americanism to counteract the propaganda that is being spread and to defeat the disloyal movements that are seeking to create a revolutionary spirit among our various classes of citizens. We urge that our profession manifest a wholesome and wide interest in this Americanism movement. We may well become personal workers in furthering this program of America and Americanism first and above all else. We owe that to our country.

Deaths

Doctor Carl Meloy was born in Springfield, Ohio, in 1882 and died in Detroit, March 30, 1921. He received his early education in the public schools of Springfield, graduated from Wittenberg College in 1902 (B.A.). In 1905 this institution gave him an M. A. He received his medical education in Johns Hopkins Medical School and graduated in 1906. Following his graduation he specialized as a pathologist in Richmond, Va. In 1913 he became Director of the Department of Clinical Diagnosis and Research in the Detroit General Hospital. He resigned in 1914 when Henry Ford took over this hospital. He was immediately appointed Director of Laboratories in Grace Hospital, which position he has held ever since. He was a member of the Wayne County Medical Society, the Michigan State Medical Society, the American Medical Association, the Detroit Boat Club and the Corinthian Lodge, F. & A. M. He leaves a widow and three children. Carl Meloy had a charming personality, was loved by all who knew him, and held the respect of his professional brothers.

Charles B. DeNancrede was born in Philadelphia, December 30, 1847 and died in Ann Arbor, April 12, 1921. He graduated from the Medical Department of the University of Pennsylvania in 1869. He practiced in Philadelphia and held various chairs and hospital appointments there. In 1889 he was appointed Professor of Surgery at the University of Michigan which he held until about 4 years ago when he resigned.

In the Spanish-American War Doctor DeNancrede was Major and Chief Surgeon, U. S. Volunteers in the Santiago Campaign.

He was a member of the American Surgical Society (Ex-President), American Medical Asso., Michigan State Medical Society, Pennsylvania State Medical Society, Ohio State Medical Society, Colorado State Medical Society, Saginaw Valley Medical Society, Toledo Medical Society, American Academy of Medicine, and International Society of Surgery. He was a corresponding member of the Royal Academy of Medicine of Rome.

He was the author of "Principles of Surgery," and a contributor to International Cyclopedia of Surgery, Wood's Hand Book of the Medical Sciences, Cyclopedia of the Diseases of Children, Cyclopedia of Diseases of the Nose and Throat, Dennis' System of Surgery, Parke's Treatise on Surgery, and American Practice of Surgery.

He was married to Miss Alice Dunnington of Baltimore in 1872.

Doctor B. Howard Lawson was born in New York City in 1830 and died in Detroit April 15, 1921. He received his early education in the public schools of New York City and his medical training in the Cleveland University of Medicine and Surgery (M.D. 1871.) He came to Michigan shortly afterwards, opening a hardware store in Howell. A few years later, he started the banking house of B. H. Lawson & Co., in Brighton. He located in Detroit in 1889 and for some time devoted his energy to the establishment of the Union Trust Company and was its first assistant treasurer. A little later he entered the practice of medicine, becoming a member of the staff of Grace Hospital and was vice-president for a period.

He was a member of the Knights Templar (Chaplain of the Old Guard of that lodge), a member of the Consistory and of the Shrine. He was a life-long Presbyterian, attending during the last years the Grosse Pointe Presbyterian Church.

He was the father of the late George E. Lawson (former President of the People's State Bank of Detroit). He leaves two children, Mr. Charles Lawson of Detroit and Mrs. James Lee of Grosse Pointe. He married Miss Maria Holling of New York City in 1872. She died four years ago.

Doctor Thomas P. Camelon was born in London, Ontario, in 1870, and died in Detroit, April 7, 1921 of pneumonia. He graduated from Trinity Medical College (Toronto) in 1890 and from the Faculty of Medicine of Queens University (Kingston, Ontario) in the same year. After practicing medicine for several years in Indiana, he came to Detroit and was licensed in 1900. His practice was limited to diseases of the nose and throat.

When the United States entered the World War, the Doctor imediately volunteered for medical service. He was commissioned First Lieutenant and was sent to Fort Benjamin Harrison. Later he was stationed at Camp Custer. In June 1918 he was sent over seas with the rank of Captain and served in the field hospitals in France. Before he returned to America he was commissioned a Major. He was discharged from the service June 1, 1919.

Doctor Camelon was a member of the Wayne County Medical Society, the Michigan State Medical Society, the American Medical Association, Palestine Lodge, King Cyrus Chapter, Monroe Council, Michigan Soverign Consistory Moslem Temple of the Mystic Shrine, Detroit Commandery, the Masonic Country Club, Detroit Athletic Club, Learned Post, American Legion, and Officers of the Great War.

The Doctor is survived by his widow, two sisters (Mrs. William Delany of Cobourg, Ontario and Mrs. Frederick Weir of Peterboro, Ontario) and a brother (John M. Camelon of Chicago.)

Doctor Camelon's professional ability and certain personal traits obtained for him a very large clientele. He was dearly beloved by so many of his patients and friends for his warm sympathies, his great personal magnetism, his forgetfulness of self, and his devotion to his ideals.

Doctor M. C. McDonnell died at his home in Bad Axe, March 22, 1921.

Doctor McDonnell was born at Lockport, N. Y., June 12, 1850, and six years later removed with his parents to Dexter, Michigan. He was a graduate of the medical department of the University at Ann Arbor of the class of 1876.

Surviving are the widow and five children.

Doctor A. M. Darling of Crystal Falls died Feb. 23 at St. Petersburg, Florida where he went last fall to spend the winter.

The deaths of the following doctors not members of the State Society have been reported: Dr. R. C. Greenwood, Hancock; Doctor T. G. Huizenga, Zeeland; Dr. F. Sauer, Hammond, Ind.; and Dr. G. W. Hawley, Detroit.

State News Notes

COLLECTIONS.

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Rerefence any Bank in Battle Creek.

Doctor C. E. Sawyer of Marion, Ohio, who is President Harding's physician, has been a close personal friend of the President for many years. He was born January 24, 1860 near Wyandotte, Ohio, and lived there until he reached the age of 17 years. It was here his literary education was obtained in the village schools. At the age of 17 he began the study of medicine and subsequently graduated from the Cleveland Medical College (Homeopathic) in 1881. During his 26 years as a Marion resident, the Doctor has made a notable success in his profession and as the head of a sanatorium south west of Marion. During the World War Doctor Sawyer served as an official in the Marion County War Board and as

Secretary of the National Volunteer Corps. Recently he was appointed Brigadier-General in the Medical Reserve Corps of the Army. A short time ago General Sawyer retired as President of the American Institute of Homeopathy and as Chairman of the Board of Directors of that organization.

Vol. 1, No. 1 (New Series) of the Harper Hospital Bulletin appeared April 1, 1921. Instead of the old quarterly, a monthly publication will be produced. The scientific essays which formed the bulk of the old Bulletin will be discontinued. The field to be covered by this publication will include the following items: (1) A complete and correct roster of the Hospital, kept up to date, including trustees, medical staff, internes and nurses; (2) The publication of all reports which are of general interest; (3) Announcement of all special activities of the Hospital; (4) Titles of addresses and scientific papers by members of the Staff; (5) Announcement of new **hospital** equipment and procedures; and (6) Reports of staff meetings and proceedings of the Executive Committee of the Hospital and so far as possible dates and programs of coming events. The Publication Committee is composed of Doctors H. M. Rich, E. G. Martin and C. L. Douglas. The Annual Reports, published in the April number have crowded out other material. The editors anonunce that the later numbers will be less formal and possibly more interesting.

In talking about his Closed Hospital Bill, Doctor O. G. Johnson, State Senator from Fostoria, makes some picturesque statements. "I have no doubt these super men (staff members of closed hospitals) who aim at a dictatorship in medicine through the means of the closed hospital, feel that the manual toil of general practice would coarsen their refined intellects and dull the fine tactile sense that has produced more mistakes and a finer conceit than anything in medicine. It is easier to get down to the hospital in a closed car at 9 a.m., smoke a few cigaretts in the cloak room, tell a few stories, make the rounds, pick up a few hundred dollars from cases than it is to hunt the game itself. Will the hospital physician make any mistakes. If he does, he will be protected by the closed system and his grave yard will not have his name plate at its entrance."

The General Meeting of the Wayne County Medical Society was held Mar., 21, 1921 with a two paper symposium on the "Question of **the** Proposed Municipal Hospital." Doctor Henry F. Vaughan's part was devoted to "The Proposed Program of the Board of Health with Special Reference to Hospitalization." Doctor Harold Wilson followed this paper with one on "A Tentative Proposal with Reference to Community Health." These two papers were well discussed by Doctors Frank Walker, C. G. Jennings, I. L. Polozker, Paul Wooley, F. R. Starkey. B. Monkman, G. L. Kiefer, Howard Pierce, Hugh Harrison, Hugo Freund, H. F. Vaughan and Harold Wilson.

The number of cocaine and morphine addicts in Detroit is showing a steady decrease (Joseph Dederich, Chief U. S. Narcotic Agent). There are two reasons for this: (1) The co-operation of the police and Government agents in arresting dope peddlers; and (2) The advice given by Federal agents to the addicts. The dope peddlers are seldom addicted to the use of the narcotics and deserve small mercy at the hands of the law. They are simply capitalizing the weakness and misfortune of others. On the other hand the addict is deserving of a helping hand. Sometimes a word of advice from the agents or the police has started the cure of a man seemingly hopelessly enchained.

On February 14, 1917, the plan of creating a series of endowment funds for the Library of the Wayne County Medical Society was launched, such funds to be established in memory of physicians who during their life had endeared themselves to the people of the community. Several thousand dollars was subscribed at that time. The Great War came on and the movement stopped. Such an endowment is the logical solution of the problem. The active campaign recently undertaken by the friends of Doctor B. R. Schenck in memory of his labors among them, should set an example to many others.

Doctor Homer E. Safford of the Detroit Juvenile Court Staff says that in his 25 years of medical practice he has been impressed with the number of cases in which nervous and mental **dis**orders have predominated. Many could have been prevented, had there been adequate hospital facilities. He is in favor of the new Detroit Municipal Hospital because it means that many of these cases can be given proper observation and many delinquents can be returned to the straight and narrow path with the proper study. At the present time such study is hampered by the lack of facilities.

A resolution, offered March 21, 1921 by Doctor Frank Walker, but written by Doctor Harold Wilson, was voted upon by the Wayne County Medical Society. This resolution suggested that, to obtain desirable co-operation between the various hospitals and other agencies for the prevention and treatment of disease, a recommendation be made to the Mayor and the Council for the appointment of a health and hospital council, to be made up of representatives of the various boards such as Board of Health, Welfare Commission, Community Union, Recreation Commission, Board of Education and the Medical Profession.

Grace Hospital, Detroit, has recently completed and opened a new maternity service. It is completely isolated from other hospital activities. This suite occupies the entire second floor of a newly constructed fireproof wing of the Hospital. This segregation of the obstretical work of the Hospital offers a degree of privacy that this Hospital has never been able to obtain heretofore. The suite consists of 16 ward beds and two con-

finement rooms, with sterilizing and utility rooms adjoining. This maternity service is open to any qualified physician when beds are available.

On April first the members of the Mecosta County Medical Society tendered a complimentary dinner to Dr. W. T. Dodge. The occasion being the eve of his sixty-second birthday. Approximately thirty-five members were present and included some from neighboring counties. Dr. Le Fevre, of Muskegon, read a paper on the Overdrained Abdomen. Dr. Wilson, of Detroit, gave a talk on Vitamines, illustrated by lantern slides. Several addresses were made during the dinner in which the respect and friendship of the members for Dr. Dodge were expressed.

In 19 Detroit Public Schools, children have been given health cards to tabulate their daily habits. For instance there are spaces for credits to be given for drinking milk instead of tea or coffee, keeping the teeth clean, keeping the bed room window open at night, taking a bath and the like. Children who receive a certain percentage, are a given a health button at the end of a month. A number of the mothers state that these school cards have succeeded where they have failed.

Doctor John Know Gailey retired from the practice of Medicine April 1, 1921. He was born in 1854 and graduated from the New York University Medical College in 1877. Thirty-nine years ago he came to Detroit. He was Supt. of Harper Hospital for several years and then entered private practice. It was mainly through his efforts that Mr. Hiram Walker built the Children's Free Hospital and for a great number of years Doctor Gailey was a faithful member of its attending surgical staff. Doctor Gailey, his wife and son have gone to California and expect to locate permanently in the neighborhood of Pasadena.

The Michigan Academy of Science met March 30, 31 and April 1, 1921 in Ann Arbor. The program of the Sanitary and Medical Science Section was taken part in by the following men: Doctors H. W. Emerson (Bacillus Botulinus in Foods), V. C. Vaughan (Albuminal Diseases), G. T. Palmer (Weather and Disease), W. L. Mallman (A Sanitary Study of the College Swimming Pool), and H. W. Emerson (Factory Wastes in Michigan Streams).

During the latter part of March and the early part of April, a number of cases of typhoid fever due to contaminated river water, were reported to the Detroit Department of Health. The water was obtained directly from the river and not from the city pipes. This emphasizes the danger confronting summer tourists and the necessity of vaccination against this disease.

The General Meeting of the Wayne County Medical Society was held April 4, 1921 and was given over to the Endocrines. The first paper was on "The Relation of Ovarian Secretions to those Produced by other Endocrine Glands, by Doctor R. C. Moehlig; the second, on "The Institial Gland" by Doctor W. H. Morley; and the third, on "Some Factors Influencing the Therapeutic Value of Corpus Luteum Preparations," by C. J. Marinus.

Health Commissioner Vaughan of Detroit has announced that the new Municipal Hospital will be well under way before next fall. The building will be put into use as the different parts are completed. It is estimated that it will take two or three years to complete this structure. It is planned to first take care of mental, pediatric and obstetrical cases and to provide facilities for the out-patient departments. The Department of Health at its meeting April 5, 1921 ordered the structural plans for the building to be made at once. Mr. Albert Kahn of Detroit is the architect.

The Fellows of the Detroit Academy of Medicine were delightfully entertained by Doctor and Mrs. A. D. Holmes at their residence April 5, 1921. Doctor F. W. Robbins gave a talk on "Curling in Edinburgh and Other Things." The Doctor was a member of the Canadian-American team which curled so successfully in Scotland the past winter.

April 2, 1921 the Michigan Supreme Court sustained the decision of the Calhoun County Circuit Court. The Kellogg Food Co. and Dr. J. H. Kellogg are ordered to pay the Kellogg Toasted Corn Flake Co. all the profits and gains that have been received by them from the infringement of said trade-name. An accounting is also ordered.

Mrs. Sarah Dunwoody of Detroit, widow of Doctor John F. Dunwoody, who died in 1918, is suing the Royal Indemnity Co. for $5,000. In 1916 Doctor Dunwoody took out a $5,000 accident insurance policy with that company. The widow claims her husband died by accident of influenza caught when a patient he was treating for pneumonia, coughed in his face.

The program of the April 11, 1921 meeting of the Medical Section of the Wayne County Medical Society was in charge of the Detroit Pediatric Society. There were three papers, "Local Experiences with the Schick Test and Toxin Anti-Toxin" by Doctor Worth Ross, "Bronchial Asthma in Children" by Doctor T. B. Cooley, and "Encephalitis Lethargica: Diagnosis and Sequellae" by Doctor B. R. Hoobler.

Fred Lamb, Golf Professional in the Detroit Athletic Club's Indoor Golf School, has mentioned the names of a number of people who no longer suffer from the "Hook and Slice Disease" and whose caddies therefore this summer will have reason to bless "Professor" Lamb. The

names of two of Detroit's physicians are on the list, Doctors H. W. Hewitt and J. D. Matthews.

The American Society for the Control of Cancer will inaugurate a National cancer week. Cancer experts will lecture on this disease while tons of literature will be mailed throughout the Nation. If this disease is to be stopped, it must be by education. The public will be taught what things predispose toward cancer, the necessity of surgical operations, the uses of radium and the X-ray and the advantages of an early diagnosis. The various departments of health will aid and assist in this drive.

President Harding, Governors of States and Canadian Officials are to be asked to direct public attention to the first National Hospital Day, May 12, 1921 (Birthday of Florence Nightingale). On this date 8,000 hospitals will make this first organized effort to show the public how they care for the sick and unfortunate. The public will be invited to come and see how patients are taken care of and how the nurses and physicians work.

April 1, 1921 Doctors J. Milton Robb and Ralph H. Pino of Detroit anounced the opening of offices with hospital facilities for surgery of the eye, ear, nose and throat at 48 Martin Place. Associated with them are Doctors I. S. Schembeck, Clarence Baker and R. J. Hardstaff. In addition Doctors Robb and Pino will retain their old offices in the David Whitney Bldg.

Doctor W. L. Clark of Philadelphia gave a clinic at Grace Hospital, Detroit, Tuesday morning, March 29, 1921, demonstrating his methods of treating moles, carcinoma, rodent ulcer, etc., by his desiccating electric method and by the use of radium. The clinic was well attended by Detroit physicians and surgeons.

The feeding tests, conducted by the Detroit Department of Health in the public schools, have proven that the majority of cases of underweight are caused by improper nourishment (Doctor Palmer). The experiments will be continued next year and the campaign for the proper balancing of children's diets will be carried into the homes. The Detroit City Council has appropriated $20,000 for next year's expenses.

In the April issue of the Journal, we stated that the State Medical Board was not represented at the Medical Congress. We beg leave to correct this statement as Doctor A. M. Hume, of Owosso, was present at the evening meeting of the Federation of State Boards. To use his own words, "I registered in and of course took an active part in the discussions, etc. If I was there at all, you know perfectly well that I would not keep still."

The officers elected by the Association of American Medical Colleges at the 31st Annual Meeting, held in Chicago, March 8, 1921 are as follows: President, Theodore Hough, University of Virginia School of Medicine; Vice-President, C. P. Emerson, University of Indiana School of Medicine; Secretary-Treasurer, Fred C. Zapffe, Chicago; and Chairman of Executive Committee, I. S. Cutter, University of Nebraska College of Medicine.

The 32nd Annual Clinic Week of the Alumni Association of the Detroit College of Medicine will be held June 13, 1921. The following out of town physicians will hold clinics: Doctors W. S. Bainbridge of New York City (Abdominal Tumors), Charles S. Bacon of Chicago (Obstetrics), Frank Smithies of Chicago (Gastro-Intestinal Diseases), William L. Kellar of Washington (Surgery of the Chest), and L. J. & J. S. Unger of New York City (Pernicious Anemia).

Among the honorary pallbearers at the funeral of Doctor Thomas P. Camelon (April 8, 1921) were the following physicians: Doctors B. R. Shurly, T. A. McGraw, Jr., G. E. McKean, W. J. Wilson, Jr., H. Wilson, F. B. Tibbals, R. C. Jamieson, H. J. Malejan, R. W. Gillman, G. A. Ford, W. J. Stapleton, J. Slevin, E. B. Forbes and G. L. Connor.

C. C. Parish of Detroit, convicted of practicing medicine without a license, was sentenced April 8, 1921, to 6 months in the House of Correction, by Judge Keidan. This is his second conviction for practicing medicine without a license. The first was on August 13, 1920. Major Roehl obtained the evidence for both convictions.

The Federation of State Medical Boards of the United States elected the following officers for the coming year—President, Doctor D. A. Strickler of Denver; Vice-President, Doctor K. P. B. Bonner, of Morehead City, N. C.; Secretary-Treasurer, Doctor W. L. Bierring of Des Moines; and as member of the Executive Committee, Doctor B. C. Richards of Pawtucket, R. I.

The 1920 Annual Report of the Shurly Head and Chest Hospital of Detroit appeared about April 1, 1921. During the past year, 2,612 patients were admitted and 1,843 were operated. The hospital now has a capacity of 67 beds. Since the appearance of the last annual report, a second operating room has been installed. Thirty beds during the past year were set apart for the care of ex-service men. These were continuously occupied.

Wednesday evening, June 15, 1921, the Alumni and their friends will be the guests of the Faculty of the Detroit College of Medicine and Surgery at the College Building. There will be a brief Laboratory Demonstration of Topics of Current Interest by the staff of each science department; an inspection of the teaching and research facilities of the College; and a short dis-

cussion of the policies and methods of the Institution by Dean, Doctor W. H. MacCraken. Refreshments will be served.

The Surgical Section of the Wayne County Medical Society met March 28, 1921. The first paper of the evening was by Doctor W. L. Clark of Philadelphia on "Electric Coagulation and Radium Treatment of Oral Carcinoma" which was illustrated with lantern slides. The second paper was on "Hare-Lip Surgery" by Doctor C. L. Straith, of Detroit, with moving pictures and lantern slides.

Dr. D. Emmett Welsh, of Grand Rapids, returned from a three months' outing in California, on April 2nd. Three days after his return he was suddenly taken ill with bronchial pneumonia. As we go to press we are glad to announce that he has convalesced so as to be able to be out again.

The Medical Special de luxe will be the finest special train ever operated in point of equipment and service. It will depart from Chicago at 8:30 on the morning of June 5th, from Detroit at 2:40 p. m., and will make the running time from Chicago to Boston in just twenty-four hours. Those persons who desire to use the Medical de luxe East and return via New York, Atlantic City and Washington may do so upon application.

The active pallbearers at the funeral of Doctor C. B. DeNancrede, held in Ann Arbor April 15, 1921, were Doctors W. H. Hutchings of Detroit, W. R. Parker of Detroit, H. D. Barss of Ypsilanti, U. J. Wile, C. W. Edmunds and F. R. Waldon of Ann Arbor. The honorary ones were Ex-President H. B. Hutchins, Doctors Reuben Peterson, A. S. Warthin, G. C. Huber and F. G. Novy of Ann Arbor. The burial was in Philadelphia.

On April 13, 1921 Doctor B. D. Harrison of Detroit, Doctor Albertus Nyland of Grand Rapids and Major Roehl of Detroit appeared before the Committee on State Affairs in Lansing in behalf of a bill introduced by Senator O. G. Johnson amending the violation section of the Medical Act.

The first paper on the program of the General Meeting of the Wayne County Medical Society (April 18, 1921) was on "Colon Bacillus Infections" by Doctor A. F. Jennings and the second on "Hare-Lip Surgery" by Doctor C. L. Straith. The latter paper was illustrated by moving pictures and lantern slides.

The Library of the Wayne County Medical Society has recently received a large number of books from Doctor L. E. Maire and a number of volumes from Doctor C. W. Hitchcock. Mrs. Dayton Parker has also contributed to it 100 volumes from the library of her husband, the late Doctor Parker.

The Detroit Community Fund has organized a speakers' bureau, to furnish to any church, school, club or civic organization, speakers who are authorities in the cultural and social service fields. The following physicians are on this list: Doctors A. L. Jacoby, Nellie Perkins, Mary T. Stevens, A. G. Studer, W. C. Cole, R. S. Dixon, A. H. Garvin, and Harold Wilson.

The Michigan State Nurses Association held its Annual Meeting in Flint, May 3, 4, 5, 6, 1921. Doctor J. W. Orr gave the address of welcome from the Genesee County Medical Society and Doctor J. G. R. Manwaring of Flint read a paper on "Private Duty Nursing from the Viewpoint of the Physician."

The Detroit Academy of Medicine held a joint meeting, April 21, 1921, with the Detroit Medical Club in the Scientific Building of Parke, Davis & Co. Through the courtesy of Doctor E. H. Houghton (President of the Detroit Medical Club) a cafteria luncheon was served. This was followed by a paper by A. D. Emmettt Ph. D. on "The Vitamines with a Physiological Demonstration."

Senator John W. Smith of Detroit introduced a bill in the State Senate to abandon the Coldwater School as a clearing house for orphans and to make it an adjunct to the Lapeer Home, thus permitting the counties to place their orphans without passing them through this school.

The Board of Managers of the new Highland Park General Hospital consists of Doctors George R. Andrews, William N. Braley, L. E. Clark, S. C. Crow, D. M. Greene, Mr. F. J. Barrett, Mr. E. C. Davis, Mr. L. J. McKenney, Mrs. L. W. Snell and Mrs. W. C. LeFebvre.

A. J. Burr, a senior student at the Detroit College of Medicine and Surgery, died suddenly April 7, 1921. He is survived by his widow, a son and two brothers(Doctor George C. Burr of Detroit and Lyle Burr, a medical student at the University of Michigan.)

The President of the Wayne County Medical Society, Doctor Harold Wilson, has appointed the following Election Committee for 1921: Doctors A. L. Richardson (Chairman), A. E. Catherwood, H. F. Dibble, E. H. Sichler, R. Walker and J. H. Dempster.

Thursday evening, June 16, 1921, a smoker and vaudeville will be given by the Alumni Association of the Detroit College of Medicine and Surgery at the Wayne County Medical Building. Following this the Annual Meeting will be held and a buffet lunch will be served.

Doctor P. C. McEwen has spent the last few months in Chicago taking a course in diseases of

the eye, ear, nose, and throat. He returned to his old offices in the Detroit Opera House Block, April 1, 1921 and will specialize in the diseases of the organs named above.

The City of Detroit is badly in need of a new small pox ward at the Herman Kiefer Hospital. The present building is an old frame structure, badly arranged and grossly inadequate for its present purpose.

The following physicians spoke in favor of the Closed Hospital Bill before the Senate Health Committee, March 30, 1921: Doctors Angus McLean, C. D. Brooks, and John Harvey of Detroit and A. M. Jones of Bay City.

The Detroit Chapter of the Sons of the American Revolution gave a dinner at the Detroit Athletic Club, March 29, 1921. The following physicians were present: Doctors C. W. Hitchcock, H. D. Jenks, Ray Connor, M. B. Coolidge and F. M. Barker.

The Detroit Society of Internal Medicine met March 28, 1921 at the University Club. Doctor William Donal was the Main Presenter (Subject "Pain"), Doctor C. G. Jennings was Literature Presenter (Subject "Typhoid Fever") and Doctor H. M. Rich gave the Case Report (Subject "Hypersensitiveness").

Friday, June 17, 1921, Commencement Exercises of the Detroit College of Medicine and Surgery will be held in the Arcadia Auditorium. Colonel William L. Keller, Chief Surgeon of the Walter Reed Hospital, Washington, D. C., will talk on "Medical Service at the Front in the Late War."

Doctor and Mrs. Carl Bonning and Miss Bonning, who have been spending the winter in Pasadena will return to Detroit about June 1, 1921. After a six weeks' stay, they will leave for the North Shore, Mass., for the rest of the summer.

New York State has legislated small pox out of existence. There are some people in Michigan who still insist in the name of freedom on the privilege of having small pox. It is up to Michigan to decide through its law making body whether small pox shall go or stay.

The Detroit Academy of Medicine listened to a delightful talk by Doctor Hugh Cabot of Ann Arbor on the "Management of Small Renal and Uretral Calculi," March 22, 1921. After the discussion was over, Doctor and Mrs. Fred Kidner served refreshments.

The Annual Report (1920) of the Board of Medical Examiners of the State of California has just reached us. Their total income for the fiscal year of 1920 was $86,900.80 (Reciprocity fees, $53,324) and their total expenditure was $61,060.99.

The Michigan Branch of the American Urological Association under the Presidency of Doctor Fred Cole, gave a complimentary dinner to Doctor Fred W. Robins of Detroit, March 29, 1921 at the Detroit Athletic Club. Doctor Robbins organized this Branch and was its first president.

The Detroit Otolaryngological Society met April 20, 1921, in the Wayne County Medical Society Building. Doctor Thomas Hubbard of Toledo read a paper on "Unusual Types of Dyspnoea." Doctor H. W. Peirce is President and Doctor H. L. Simpson, Secretary for this year.

Doctor and Mrs. Angus McLean, Miss Marion McLean, and Mrs. Oren Scotten of Detroit will sail June 30, 1921, for France where they will visit Mrs. McLean's brother, Mr. Robert Scotten. Mr. Scotten is connected with the American Embassy in Paris. Doctor McLean and his party will spend the entire summer in Europe.

Doctor J. G. Van Zwaluwenburg of Ann Arbor was elected April 19, 1921, President of the Michigan Trudeau Society and Doctor E. B. Pierce of Howell Vice-President at their meeting in Flint.

Doctor and Mrs. Blodgett of Detroit and their children will spend the month of June at the North Shore. Doctor Blodgett will attend the meeting of the American Medical Association in Boston and the 25th re-union of his class at Harvard.

Doctor James Inches of Detroit was one of the passengers on the giant aeromarine flying craft, "Santa Maria" in its trip from Miami, Florida, to Washington, D. C. They were 16 hours in the air. The trip was made the middle of April.

The following physicians have joined the recently organized Plum Hollow Golf Club: Doctors W. M. Braley, G. B. Stockwell, G. D. McMahon, W. F. Seeley, G. E. Fay, C. C. Jordan, J. C. Dodds, Stewart Hamilton, W. G. Hutchinson, G. J. Reberdy, H. W. Hewitt and R. E. Loucks.

Doctor Edward D. King was married April 13, 1821 to Miss Florence Mulqueen, both of Detroit. Their wedding trip will last one month and will include stops in Chicago, New York and Atlantic City.

Doctors I. N. Brainerd and F. J. Carney of Alma, W. E. Barstow of St. Louis and E. M. Highfield of Riverdale attended the Saginaw County Medical Society to hear Dr. John Monohan and his paper on Diverticulitis, April 12.

Does merit, mere plodding merit, invariably bring reward? Does it get your name on peoples' lips? Pep up your serious stuff and cash in on the publicity thereof (Wayne County Medical Society Bulletin, April 18, 1921.)

Doctor Mary Thompson Stevens was re-appointed April 11, 1921, a member of the Board of the Detroit House of Correction by Mayor James Couzens. The appointment is for a term of 4 years ending March 1, 1925.

The Detroit Ophthalmological and Otological Club met April 6, 1921 at the Medical Building. Doctor William MacDonald gave the members a dinner and then read a paper on "A Standardized Treatment for Acute Suppurating Otitus Media."

Among the patronesses for the Dartmouth College Clubs' Concert, given April 7, 1921 in the Statler Hotel, Detroit, were Mrs. A. D. Holmes and Mrs. C. W. Hitchcock, wives of two of Detroit's prominent physicians.

The later part of March, Health Commissioner H. F. Vaughan of Detroit, urged war against the fly. Every fly Swatted at that time means about 137,000,000 less next August according to the Commissioner.

Doctor William B. Hinsdale of Ann Arbor was elected delegate at large to the National Congress at the Annual Meeting of the State Society of the Sons of the American Revolution, held in Detroit April 15, 1921.

Under the terms of the will of J. Harrington Walker of Detroit, the Children's Free Hospital receives $25,000; Harper Hospital, $10,000; Girls Holiday House, $2,500 and the Franklin Street Settlement, $1,000.

The summer meeting of the Radiological Society will be held in Boston June 3, 4, 1921, giving the members an opportunity to remain over for the meeting of the American Medical Association, June 6, 7, 8, 9, 10, 1921.

The Endowment Committee of the Wayne County Medical Society were pleased with the results of the letter sent to the members in February. Many remittances were made.

The infant mortality for Detroit for February and March was the lowest it has been in 5 years. The rate was 90 per thousand as compared with 195 for 1920, 134 for 1919 and 108 for 1918.

The new Highland Park General Hospital was formally opened to the public, April 16, 1921, with a flag raising ceremony. The first patients were received April 18, 1921.

The proposal to bond the City of Detroit for $3,000,000 to construct a Municipal Hospital was carried overwhelmingly in the April election. The vote in favor of it was nearly 3 to 1.

The State Legislature of Oregon passed Feb. 19,1921, a bill requiring that women as well as men seeking marriage licenses, shall be examined as to their mental and physical fitness.

Former members of the Base Hospital Unit No. 36, A. E. F., commanded by Col. B. R. Shurly, gave a masquerade ball, April 1, 1921 in the Detroit Board of Commerce Auditorium.

The Detroit Medical Club met March 17, 1921 at the Medical Club. Doctor F. T. F. Stephenson read a most interesting paper on "The Crime Sheet of a Life Insurance Co.

Col. Hubert Work of Colorado, President of the American Medical Association, has been appointed First Assistant Postmaster-General in the Harding Administration.

Doctor Mary Thompson Stevens of Detroit attended the 36th Annual Meeting of the Association of Collegiate Alumnae, held in Washington the latter part of March.

Mrs. Cooley, wife of Doctor Thomas B. Cooley of Detroit, and son Thomas left the early part of April to visit Mrs. William Kales in Tryon N. C.

On March 21, 1921, the Wayne County Medical Society put itself on record as in favor of the new Detroit Municipal Hospital. The resolution favoring this was caried by a large majority.

Doctor Fred Meader of the Detroit Department of Health states that one-half of the deaths in Detroit are caused by tuberculosis and from 30 to 40 new cases are reported daily.

Doctor James Inches of Detroit and some of his friends left March 25, 1921 for Miami, Florida. They were gone about two weeks and spent most of the time fishing.

Doctor and Mrs. Lowrie returned March 26, 1921 to Detroit after a month's trip including stops at Jamaica, Havana and Panama Canal Zone.

The State Department of Health has maintained since September 1920 a traveling clinic which has visited 23 counties and 69 cities and villages to date.

Miss Jenks who has been spending this winter with her brother, Doctor H. D. Jenks, of Detroit,

returned April 15, 1921 to her home in Warsaw, N. Y.

The Oregon League for the Conservation of Public Health has undertaken an extensive campaign to disseminate information regarding public health matters throughout the State.

Doctor H. W. Plaggemeyer of Detroit delivered April 10, 1921, the Y. M. C. A.'s annual sex hygiene elcture. Motion pictures were used to illustrate the message of the speaker.

Dr. and Mrs. W. R. Chittick and Dr. and Mrs. George Potter of Detroit returned to Detroit about the middle of April. Both couples spent the winter in California.

Doctor and Mrs. W. J. Cree and Doctor E. W. Henderson of Detroit returned the latter part of March from a three months' trip to Miami and Cuba.

Mr. Duncan Browne, Dean of the Episcopal Cathedral in Denver, and his wife, visited in April his brother, Doctor William H. Browne, of Detroit.

The Michigan Trudeau Society held its spring meeting in Flint April 15, 1921. The Michigan Anti-Tuberculosis Association will hold its annual meeting in Lansing, May 17, 18, 1921.

Doctor and Mrs. J. F. Adams of Ann Arbor recently announced the engagement of their daughter, Elizabeth Frances, to Mr. Allyn R. Haight of Detroit.

Dr. M. J. Budge of Perrinton, has bought out Dr. E. H. Foust of Ithica. Dr. Foust plans to specialize in Eye and Ear work and locate in a larger city.

Doctor R. W. Gillman left Detroit April 8, 1921, to visit friends in Bermudas.

Dr. E. E. Dennis has left Flint and will practice in Illinois.

Doctor and Mrs. W. R. Clinton, of Detroit, announced the birth of William MacKenzie Clinton, March 9, 1921.

Doctor and Mrs. B. H. Larsson of Detroit had a son and heir (Bjorn Eric Larsson) born March 20, 1921.

Mrs. A. J. Neuman, of Detroit, presented her husband, Doctor Neuman, with a son (Arthur Joseph Neuman, Jr.) March 20, 1921.

The bill which was introduced by Representative G. C. Shultz of Indiana to prevent animal experimentation, was killed in the Committee.

Dr. John R. Rogers, of Grand Rapids, expects to leave in June for a three months' European trip.

Dr. A. C. Henthorn has arrived in Grand Rapids from Kentucky and assumed his duties as full time U. S. Public Health Surgeon.

Doctor and Mrs. Wadsworth Warren of Detroit expect to open their summer cottage at Algonac about May 1, 1921.

Doctor T. T. Dysarz was re-appointed April 12, 1921, health officer of Hamtramck Village by President Fred Dibble.

Mrs. G. M. LeGallee, of Detroit, presented her husband, Doctor LeGallee, with a son, April 8, 1921.

Doctor and Mrs. Charles H. Oakman and their daughter returned to Detroit the early part of April from Florida.

Coroner Jacob Rothacher of Detroit became a grandfather March 29, 1921 when a girl was born to his daughter, Mrs. W. B. Trombley.

Doctor Chester A. Doty gave an illustrated lecture on "Social Hygiene," April 18, 1921, before the St. Andrews Society in Detroit.

The Michigan State Meeting of the American College of Surgeons was held at Harper Hospital Detroit April 28, 29 and 30, 1921.

Doctor Fred T. Murphy is a member of the Board of Trustees of the Merrill-Palmer School of Homemaking of Detroit.

Doctor A. D. Holmes left Detroit April 21, 1921 for a ten days' visit at French Lick Springs, Indiana.

During the latter part of March, Doctor A. P. Biddle, of Detroit, entertained his brother, Major William S. Biddle, of Washington, D. C.

Doctor W. H. Sawyer of Hillsdale was elected Regent of the University of Michigan April 5, 1921. This is his third term.

Doctor Ira G. Downer of Detroit spent the first part of April in Chicago and Rochester, Minn.

In 1918 there were 61,000 deaths from cancer reported in the United States and in 1920, 90,000.

Doctor and Mrs. M. R. Van Baalan returned to Detroit April 5, 1921 after a three months' trip abroad.

Dr. J. H. Kellogg of Battle Creek returned the last of April after spending several weeks in California.

Dr. G. A. Haynes has been appointed health officer of Homer.

Dr. Foust has sold his practice in Ithaca to Dr. M. J. Bridge.

Mrs. T. A. Baird, wife of Dr. T. A. Baird of Bay City died on April 5th.

D. C. S. Ballard has left Flint and has entered the U. S. Public Health Service.

Dr. Wm. Lyon, of Flint, has left for a year's special work in Pediatrics.

Dr. J. W. Orr is spending a few weeks in Florida.

Doctor and Mrs. David Inglis of Detroit spent the winter and early spring in Summerville, S. C.

Dr. Harold W. Wiley of Grand Rapids has associated himself with Dr. H. S. Collisi.

Doctor and Mrs. G. I. Dakin of Detroit spent the latter part of March in New Haven, Conn.

Dr. B. T. Larson has located in Iron Mountain.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. Secretaries are urged to send in these reports promptly

BAY COUNTY

The Bay County Medical Society held a regular meeting Monday, April 4th, at Mercy Hospital and were guests of the Sisters of Mercy. The new four-story addition to the hospital with its new laboratory and X-ray departments was recently opened and an opportunity for inspection was given to the physicians.

The hospital, with a bed capacity of 150, now has completely organized departments, having added a Maternity and Childrens' department.

The Sisters and Nurses served refreshments and the meeting was given over to just routine business.

All the State Meeting Committees of the local society reported progress and all plans formulated.

L. F. Foster, Secretary.

BENZIE COUNTY

The Benzie County Medical Society, in session, unanimously protest against the enlarged hospital plans of the University of Michigan, as unfair to the tax paying physicians of the state to be compelled to compete with a state aided clinic of the kind planned.

Already there is a dearth of physicians in rural communities and the proposed plan to reach out after "Pay patients" would greatly increase this tendency and the inclination to accomodate "Pay patients" to the neglect of the helpless poor would certainly result and the value of "A pull" would be in direct proportion to the size of the hospital.

The small hospital movement is making rapid headway and is of inestimable value to not only the sick in the surrounding region, but is of great professional benefit and service to all of the active doctors within a convenient distance and the "Ann Arbor idea" carried out would head off many communities from the possibility of such efficient local hospital help.

Please give this matter your most earnest consideration.

E. J. Ellis, Secretary.

GENESEE COUNTY

The Clinical Section of the Genesee County Medical Society met on Thursday, March 24th, 1921, Vice-Pres. Wheelock, presiding. State clinical team No. 12 gave a symposium on Fractures and Emergency Surgery. Dr. Randall, in introducing the team, stated that more malpractice suits occurred in this branch of the doctor's work than in all the other specialties combined. Dr. Randall, from his vast experience with fractures in the A. E. F., was able to give his hearers a most useful resume of the important points in handling fractures. Dr. Manwaring spoke on the methods to be employed in order to get good orthopedic results. Dr. Clift reviewed the Roentgenology of fractures. He emphasized a thing we are apt to forget, that the patient must not be shown or given the plates, for a functional result often results where the picture does not

show complete apposition. Dr. D. L. Treat, who has had chargé of the surgical work of the Buick Motor Co. for years, spoke on the principles of Emergency Surgery, illustrating his remarks by well chosen lantern slides.

On Wednesday, March 30th, we were privileged to hear Dr. Hugh Cabot, Prof. of Surgery at the University of Michigan. He spoke on "Renal Tuberculosis," and his familiarity with his subject, his perfect diction, and his charm of manner endeared him to the society. Dr. Max Peete, Associate Professor of Surgery at the University spoke briefly on a new surgical procedure "Cordotomy." He reported cases of metastatic carcinoma of the spine where the excruciating pains in the extremities were completely relieved by section of the sensory tracts in the spinal cord.

The Clinical Section of the Genesee County Medical Society met Thursday evening, April 7th, Vice-President Wheelock presiding. Dr. Carl Chapell spoke on "The Therapeutic Uses of the X-Ray." He presented the more recent views of the value of radiation in treatment of diseased lymphoid structures, especially the tonsils and thyroid. He also briefly discussed the value of deep therapy in malignancy. A. C. Brines, of the Jefferson Clinic, Detroit, demonstrated the use of McKesson Basal Metabolism apparatus.

The Genesee County Medical Society met at St. Joseph's Hospital, Flint, on Wednesday, April 13th. After a tour of inspection of the new hospital, a luncheon was served by the Sisters and the doctors were welcome by Rev. Fr. Dunigan, who spoke of the cordial relations that have existed between the medical fraternity and the various nursing orders. Dr. Frank N. Wilson, Associate Professor of Medicine, University of Michigan spoke on "Chronic Myocarditis." He gave the most modern views of the internist in defining what we mean by Myocarditis. The history of these cases with interpretation of the various signs and symptoms were discussed in detail. He gave the members of our society many valuable points on the use of Digitalis.

W. H. Marshall, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The March meeting of the Gratiot-Isabella-Clare County Medical Society was held at Brainerd Hospital in Alma, Thursday, March 31. In the absence of President Burch and Vice-President Smith, Dr. I. N. Brainerd was called to the chair.

Dr. Brainerd was elected delegate and Dr. M. F. Brondstetter alternate to the State Meeting. Dr. E. L. Street presented a case of Spina-Bifida. Dr. I. N. Brainerd reported a case of the 4th venereal disease.

Dr. M. F. Brondstetter reported a case of traumatic rupture of the urinary bladder in a child of 5 with operation 82 hours after with recovery.

E. M. Highfield, Secretary.

KENT COUNTY

At the regular meeting of the Kent County Medical Society held at Grand Rapids on the 23rd of February, the Proctology Team of the Michigan State Medical Society furnished the evening's program. The speakers were all from Detroit. Dr. B. C. Lockwood's subject was "The Medical and Surgical Aspects of Chronic Constipation." He was follower by Dr. J. E. King on "Radiotherapy and Radiographic Diagnosis," illustrated with the lantern. Dr. Lockwood then spoke on "Medical Treatment" and Dr. Louis J. Hirschman, the team captain followed with "Surgical Treatment."

The speaker for the evening of March 9th was Professor Reuben Peterson of Ann Arbor whose subject was "The Pneumoperitoneal X-Ray for Pelvic Work." His remarks were illustrated with the lantern.

The program for March 23rd was given by the Pneumonia and Empyema Team of the State Society. Members of this team are all from Grand Rapids. Dr. James Brotherhood spoke on "Etiology and Symptomatology." Dr. V. M. Moore's subject was "X-Ray Diagnosis," illustrated with the lantern. Dr. Collins H. Johnston, the team captain, spoke on "Differential Diagnosis and Medical Treatment," and Dr. Wm. Veenboer's subject was "Surgical Treatment" with lantern illustrations.

At the regular meeting of the Society for April 13th, Dr. C. H. Johnston of Grand Rapids, described "Three Cases of Artificial Pneumothorax," with lantern illustrations. The Cardio-Renal Team of the State Society then gave a "Discussion of Cardio-Vascular Conditions." The members of this team were from Battle Creek. Dr. M. A. Mortensen, the team captain, gave "The Diagnosis of Heart Disease." Dr. Wenke spoke on "Throat Infections in Cardiac Disease" and Dr. Pritchard's subject was "X-ray Examination of Heart and Aorta," with lantern slide illustrations. Dr. Mortenson closed the program with an illustrated talk on "Blood Pressure."

F. C. Kinsey, Secretary.

MUSKEGON COUNTY

Muskegon County Medical Society met at the Occidental Hotel, April 8th, 1921. President Cramer presiding. Minutes of former meeting were read and approved. Following the banquet Dr. Roy Urquhart of Grand Rapids gave an excellent address on Mastoids and their complications. The address was supplemented by numerous stereopticon views showing different com-

plications. The subject was discussed by Dr. A. F. Harrington and Dr. Kniskern. Twenty-two members of the Society were present. Meeting adjourned.

E. S. Thornton, Secretary.

Muskegon County Medical Society met at City Hall, March 18th, 1921, President Cramer presiding. Minutes of the previous meeting read and approved.

Communication from the State Secretary read, asking that the Chiropractor story of the Waukegan case be given to the local papers. On motion of Dr. Marshall, President and Secretary were appointed to take care of the publicity.

President Cramer appointed a committee composed of Drs. Teifer, Laurin, and R. J. Harrington to meet with the Dental Society committee.

Committee reported on Mercy Hospital operating room. That $595 had thus far been subscribed. On motion of Dr. Cohen, society voted to solicit other members for additional funds.

Three reels of clinical motion pictures were then shown.

Meeting adjourned.

E. S. Thornton, Secretary.

OCEANA COUNTY

The Oceana County Medical Society met in regular session at the home of Dr. Wood in Hart on March 4th, 1921, at 7:30 P. M. The president, Dr. Reetz, was called away before time to open the meeting and the vice-president not being present Dr. Buskirk opened the meeting. The minutes of the last meeting were read and approved. At this time Dr. Day, the vice-president, arrived and the meeting was given over to him. Mr. H. M. Royal of Shelby was present by arrangement of the program committee and gave a paper on The Layman's Idea of the proposed new plan of the management of the State Hospital at Ann Arbor. The paper was ably presented by Mr. Royal and was enjoyed by us all, after which the usual informal discussion was had, at the close of which a motion was made and carried that the minutes of this meeting and Mr. Royals paper be sent in and the State Secretary be requested to have them printed in the Journal.

A vote of thanks was extended to Mr. Royal for his splendid paper.

Light refreshments were served by Dr. Wood and we adjourned.

C. H. Branch, Secretary.

SAGINAW COUNTY

The Saginaw County Medical Society enjoyed a real treat on the evening of April 12th, when they listened to a lecture on Diverticultis by Dr. John J. Monohan of Chicago. The lecture was supplemented by an excellent collection of lantern slides.

Dr. Monohan gave a splendid presentation of the subject, reporting the results of extensive biological studies as well as many case reports illustrating the condition. A lively discussion followed, which brought out many interesting points. Visitors were present from nearly all the nearby towns in this section.

The next meeting of the Society will be given over to the discussion of the relation of the laboratory to the Practitioner, its possibilities and its limitations.

During Dr. Monohan's short visit with friends here, he was kind enough to give an operative clinic which was largely attended and proved very interesting. The balcony at the Saginaw General Hospital with the men peering down into the pit, reminded one of student days.

Work is progressing nicely on the addition to the Saginaw General Hospital. The bed capacity of the hospital will be doubled, which will give some relief to the present over-crowded conditions. Plans are now drawn for similar additions to both St. Mary's and the Woman's Hospitals. The hospital extension work is under the direction of the City Welfare League.

Saginaw is soon to have a central laboratory which will care for the hospitals and be at the disposal of the physician.

R. M. Kempton, Secretary.

SANILAC COUNTY.

A meeting of the Sanilac County Medical Society was held in the Court House, Sandusky, April 19, 1921.

Dr. J. W. Scott, president, called the meeting to order.

The meeting appointed as delegates to the State Society Dr. J. W. Scott with Dr. C. E. Jeffery as alternate.

Dr. H. H. Angle of Lansing, Mich., gave a very interesting paper on "Auxicular Tibbulation" which was very interesting and well received and considerable time was spent in questioning and discussing.

Dr. S. Stevens of Carsonville gave an interesting paper on Hormonic and Diagnostic Signs of the Endocrins' System" which was also well received.

A vote of thanks was tendered by the meeting to both of these gentlemen for their interesting papers.

Moved to adjourn to meet at Sandusky in May.

C. E. Jeffery, Secretary.

Book Reviews

A MANUAL OF SURGERY: Francis F. Stewart, M.D., Professor of Surgery, Jefferson Medical College. Cloth, Price $10.00. P. Blakiston's Son & Co., Philadelphia.

This text, a fifth edition, was completed just previous to the authors death. It is a text that is definite and exact with confusing verbiage eliminated. Special attention is called to the four years study of war surgery and its application to civil life. It is a text that one may turn to with considerable satisfaction. It is thoroughly abreast with our modern accepted practices.

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The Secretary of the Society will please notify the State Secretary immediately of any errors or change in these offices.

COUNTY SOCIETIES

BRANCHES OF THE MICHIGAN STATE MEDICAL SOCIETY

County	President	Address	Secretaries	Address
ALPENA	A. E. BONNEVILLE	Alpena	D. A. CAMERON	Alpena
ANTRIM, CHARLEVOIX, EMMETT	R. B. ARMSTRONG	Charlevoix	B. H. VAN LEUVEN	Petoskey
BARRY	C. H. BARBER	Hastings	GUY KELLER	Hastings
BAY, ARENAC, IOSCO	G. M. McDOWELL	Bay City	L. F. FOSTER	Bay City
BENZIE	J. M. STONE	Honor	E. J. C. ELLIS	Benzonia
BERRIEN	C. V. SPAWR	Benton Harbor	J. F. CROFTON	St. Joseph
BRANCH	G. H. MOULTON	Coldwater	A. G. HOLBROOK	Coldwater
CALHOUN	W. S. SHIPP	Battle Creek	WILFRID HAUGHY	Battle Creek
CASS	G. W. GREEN	Dowagiac	JOHN H. JONES	Dowagiac
CHEBOYGAN	A. M. GEROW	Cheboygan	C. B. TWEEDALE	Cheboygan
CHIPPEWA, LUCE, MACKINAW	T. BENNETT SCOTT	St. Ste. Marie	A. C. LEMON	St. Ste. Marie
CLINTON	H. D. SQUAIR	St. Johns	D. H. SILSBY	St. Johns
DELTA	L. P. TREIBER	Bark River	G. W. MOLL	Escanaba
DICKINSON-IRON	C. F. LARSON	Crystal Falls	L. E. BOVIK	Crystal Falls
EATON	STANLEY STEALY	Charlotte	PHIL H. QUICK	Olivet
GENESEE	J. WALTER ORR	Flint	W. H. MARSHALL	Flint
GOGEBIC	A. W. ERICKSON	Ironwood	C. E. ANDERSON	Ironwood
GRAND TRAV., LEELANAU	H. B. KYSELKA	Traverse City	E. F. SLADEK	Traverse City
HILLSDALE	T. H. E. Bell	Reading	D. W. FENTON	Reading
HOUGHTON, BARAGA, KEWEENAW	D. E. GODWIN	Houghton	A. D. ALDRICH	Houghton
HURON	A. E. W. YALE	Pigeon	S. B. YOUNG	Caseville
INGHAM	FRED J. DROLETT	Lansing	MILTON SHAW	Lansing
IONIA	G. A. STANTON	Belding	J. DEFENDORF	Ionia
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Record of press clippings showing 160 cases of poisoning in 5 years. Mostly children between 1 and 3 years. 50 known fatalities.

	1913		1914		1915		1916		1917		TOTAL	
	Numb. Cases	Fatal	Numb. Cases	Fatal	Numb. Cases	Fatal	Numb. Cases	Fatal	Nnmb. Cases	Fatal	Numb.	Fatal
Arizona	1										1	
California	1						1				2	
Colorado									1	1	1	1
Florida			1	1							1	1
Georgia					1	1					1	1
Idaho			1	1							1	1
Illinois	2	1	4	1	6	2	9	3	7	2	28	9
Indiana			8	2	2		1				11	2
Iowa			7	1	4	1	3		3	1	17	3
Kansas									4	1	4	1
Kentucky			2	1							2	1
Massachusetts					2	1					2	1
Michigan	6	2	3	2	2	1	1				12	5
Minnesota	2	2	5				10	6	2	1	19	9
Missouri					1	1	2	1			3	2
Montana							1	1			1	1
Nebraska			2		1		3	1	1		7	1
New Jersey			2						1		3	
New York			2		1						3	
North Carolina			1								1	
North Dakota	2	1	2				2	2	2		8	3
Ohio	2		3		1						6	
Oklahoma	1	1			1						2	1
Oregon	1										1	
Pennsylvania	1	1	3	1	2		4		1		11	2
South Carolina									1		1	
South Dakota							1		1	1	2	1
Vermont							1				1	
Washington	1										1	
Wisconsin	1				2	1	2	1			5	2
Canada			1	1					1	1	2	2
	21	8	47	11	26	8	41	15	25	8	160	50

RECAPITULATION.

	1913	1914	1915	1916	1917	Total
Fatal	8	11	8	15	8	50
Recovery Doubtful		6	4	3	3	16
Recovery Probable	12	31	14	23	14	94
	20	48	26	41	25	160

Ninety per cent of all case occurred during July, August, September and October.

The similarity of symptoms to those of cholera infantum make it practically certain that many cases of poisoning from arsenical fly destroyers are not correctly diagnosed. The children are in most cases too young to realize or to tell what they have done, and unless actually seen taking the poison, the illness is apt to be diagnosed as cholera infantum. The remedy for arsenic is not given and the case is treated as cholera infantum, which is, of course, prevalent at the time these fly destroyers are in use.

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Vol. XX GRAND RAPIDS, MICHIGAN, JUNE, 1921 No. 6

Original Articles

PRESIDENT'S ANNUAL ADDRESS 1921. THE EXISTING RELATIONS BETWEEN THE MEDICAL PROFESSION AND AND THE PUBLIC AND THE FUTURE TENDENCY.*

ANGUS MC LEAN, M.D.
DETROIT, MICH.

For the past few years, clouds of uncertainty have been hovering over the regular medical profession. These clouds did not sweep down from mountain tops, but they arose from among the people: charitable institutions founded for preventive medicine: different labor organizations of the country: American association for labor legislation, Sage Foundation and members of our own profession, especially those members associated with public institutions and salaried members of the medical profession.

At our last annual meeting held in Kalamazoo, these clouds made their appearance in Michigan in a definite manner. When representatives of different societies told us that medicine would be regulated in the near future, as they dictated, these clouds of disturbance that befogged the public mind as to the virtue of scientific medicine, assisted by the propaganda for compulsory health insurance were waived a little further on. Later they rested over the dome of our capitol at Lansing during the entire time our legislature was in session (recently). Whether these clouds shall rest there until the next session or hang over some other state capitol, I do not know, but I am sure that they will rest again over the dome of our capitol at Lansing when the next biennial session meets. I must say it was not the general practitioner or the so-called family physician, who welcomed these threatening clouds to our country or State. These methods of disturbance were presented from several different angles, namely compulsory health insurance, State medicine, community health centers, bills regulating physicians and surgeons' fees, bills introduced by the Chiropractors, osteopaths, and Christian Scientists asking for equal rights with regular medicine, all aiming to repudiate the licensed physician's practice, aiming to regulate the amount of his income, and to put him in the same class with all cults before mentioned. This condition, I think, is well known to the members of the State Medical Society and to the profession of our State, and it may be stated that as a result of this, the medical profession now are in a state of "watchful apprehension," not knowing what is to happen in the next few years, not knowing where they are to be placed or what is to be their ultimate fate. They are watching with uneasy eyes the next move of the enemy.

It is true that scientific medicine and surgery have progressed more during the past thirty years than it has in any other period in the history of medicine. Yet, with all this scientific progress, with the raising of medical college standards and in every way making the profession more efficient as well as raising to a high degree the matriculation of students, who undertake the study of medicine and are to be the skilled physicians of the future; for several years the laity has received the benefit of this advanced science as well as the benevolence of a number of sanitary and scientific institutions throughout the counties and State, yet at no time in the history of medicine has the so-called drugless healers, anti therapeutists and different cults been more popular with the laity. Christian Science was never so strong as it is at the present time. Osteopathy holds a high place in the estimation of the public mind. The Chiropractors are now treating thousands of our citizens. Other cults are fast coming into existence. Why should this be so? It seems as though the regular profession must ask itself some questions. Is there something in the great art of medicine that we have neglected? We should find out why these cults appeal to so large a number of our citizens. Should medicine be a little broader and interest our people as do these manipulators, who appear to be so

*Delivered at 56th Annual Meeting Michigan State Medical Society held in Bay City, May 24-26, 1921.

satisfactory to people of certain imagination? I can see how the business man does not look with favor on strict medical ethics. The business man disposes of his wares by advertising. Large corporations and manufacturers advertise what they make, advertise them in the daily newspapers, advertise them in our different magazines and they will all note what percentage or what amount of their sales they make through their advertising.

The newspaperman and the journalist have an antipathy against the medical profession because they do not advertise. Their sympathies are with the advertising organizations. Their sympathies are with the osteopath, the Chiropractor, the healers of different types because these people are advertisers and their advertising helps to support the newspapers and journals. The question comes from this: Should we not make a phychological dissection of our Ethical methods also a dissection of the psychology of the public mind to discover why there is more sympathy shown towards these cults than to scientific medicine? If it is that medicine and the practice thereof has changed in the last twenty-five years: that it does not appeal to a large portion of the laity, let us enquire and find why.

The statement has been published in several journals and in many pamphlets that have been spread among the people at large: that at the present time forty million people or four tenths of the population of the United States are believers in drugless medicine. Who pays for the publishing of these pamphlets? Who pays for the thousands of dollars that are spent every month for printing and postage of all this literature? Is it the American Association for labor legislation or the Sage Foundation? Is the laity prejudiced against the regular medical profession and if so why are these people prejudiced? Is it that they believe only in what they read in these published articles? Do they believe that great drug and vaccine firms such as Parke, Davis and Company and other noted houses are producing worthless remedies or do they think scientific medicine has become a financial burden and they are looking for something more economical? The latter will bear close investigation.

The public have in their minds some sort of scale of remuneration that profesisonal men should receive and this is particularly so in the practice of medicine. From time immemorial they have looked upon the physician as a person, who had little desire to accumulate wealth, that his reward for services rendered was somewhat similar to that of another great profession, namely, that of the ministry, and that any great reward he was to receive for scientific work done, was to be only in part financial as a portion of that reward was to be laid up in heaven where they did not expect him to pay taxes.

At no time have physicians been supposed to acquire wealth out of the practice of medicine. Our specialists of late have raised their heads quite high and some of them have presented bills that have looked as though they put full commercial value upon their services. To regulate this, a bill was introduced into the legislature during the last session by representative Rowe of Hillsdale, Michigan. The bill is short and I will quote it in full:

A bill protecting the people of the State against unjust, unreasonable and unfair charges by physicians and surgeons and establishing a maximum schedule of fees in certain cases.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

"Section 1. No physician or surgeon in this State shall be entitled to or receive as payment for professional services rendered in any of the following cases a sum in excess of the amounts specified herein unless by prior agreement in writing.

Section 2. The following schedule of maximum charges shall prevail:

For surgical operation in cases of appendicitis—not to exceed the sum of fifty dollars.

For surgical operation in cases of goitre—not to exceed the sum of one hundred dollars.

For surgical operation in cases of cancer—not to exceed the sum of one hundred dollars.

For surgical operation in cases of external tumor—not to exceed the sum of fifty dollars.

For surgical operation in cases of internal tumor—not to exceed the sum of one hundred dollars.

For services in confinement cases not to exceed twenty dollars. The above fees shall include all necessary examinations and dressings in each case.

Section 3. All complaints of attempted extortion under the terms of this act shall be made to the Secretary of the State Board of Health, who shall thereupon, promptly advise said physician or surgeon of the terms of this act and the amount legally collectible for performing any of the services mentioned in section two of this act."

The statements in this bill show well what the public think our services are worth and the amounts the profession should receive in financial reward for work done.

There seems to be no doubt that medical and surgical men of ability require an income sufficient to live upon and to maintain their families on an equality with those of the average

business man. This point was well brought out at a meeting held at our own university at Ann Arbor, in January, 1921 when the profession of the State was invited to attend a gathering called by the President of the university so that he might explain to the profession, changes that he desired to make in the medical department of the university in reference to compensation for the medical faculty. In short, it amounted to this: That the University and Medical faculty had great respect for the indigent persons of our State: that they would receive the attention and medical skill needed and would be treated by the medical profession of Michigan faithfully, but that they would prefer to treat in the University hospital the so-called pay patients. In other words, they would prefer that the majority of patients sent to them for medical and surgical skill be of that class, who would be able to pay the university for medical services. When the president was asked, "Why this desire," he stated that at the present time the university did not pay a sufficient salary to the medical faculty to correspond with the high demands of living put upon these gentlemen at the present time. When asked what would become of the fees charged patients for services, he stated that this would be collected by the hospital and placed in a fund to be later distributed among the members of the medical faculty.

There was a statute enacted over two years ago and it is still on the statute books of this State, stating that it is illegal to divide fees among physicians and surgeons and that men, who receive such fees are liable to the penalty of our law. Probably this does not refer to dividing fees among specialists. I think when this law was enacted that they had in mind that the legality of the law applied only when the general practitioner received any reward for his services. As interpreted by the State hospital, specialists may divide fees in a way they see fit. I do not believe that it was the family physician or the general practitioner that had this law enacted.

In the early part of this year, Professor Herrick, of Chicago, published an article in the *Journal of the American Medical Association* relating somewhat to this question and wondered why the services of the mechanical therapeutist were so much more valuable than those of the scientific therapeutist. The general practitioner would treat a patient say for six months and decide that this patient required some sort of an operation. He took the patient to a specialist in some city and an operation would be performed. The operator would receive say two hundred dollars for thirty minutes of mechanical therapeutic work while the scientific therapeutist, who had used sera, vaccines, etc., would receive probably thirty or forty dollars for his six months work. This is one of the reasons why our young men all desire sooner or later to become mechanical therapeutists. They can do their work in a much shorter time and with greater financial reward. Even noted specialists do not agree as to the value of their own services. A short time ago, it was reported that two aurists of equal reputation treated patients of equal financial responsibility. The operations performed were both for mastoiditis. The patients recovered in an equal length of time. One aurist charged two thousand for the operation and the other charged ten thousand dollars for a like operation. These patients talked over the financial situation and wondered why the great difference.

The last few years has introduced what is known as group medicine. This is an association of specialists or other practitioners of high qualities, who associate themselves together in their practical and scientific work so that the patient may receive not only the skill of one man but of several. They may be associated with a hospital or independent. This group of physicians would accept a patient of any type. The patient would be examined by one or two of or all of them if necessary to arrive at a definite diagnosis. This would necessitate a full equipment for modern investigation. This appears to be ideal, but again we have the question of expense: a group of men of high special attainment would require more than a normal fee. It would probably cost from forty to fifty dollars for a complete examination. Where a more thorough examination or complete investigation is required it would cost approximately one hundred dollars. Then again arises the question as to what portion of our population can afford to pay these fees. When the patient has minor ills and where the diagnosis could be made readily a small charge would be made, however, an organization of this type must have fees sufficiently large to maintain themselves in their surroundings. This is being tried out and a final report on the success of group medicine will be made. At present these groups are all in the large centers. As time goes on they will probably move to the smaller places and to the country districts and it is there that their worth will be tried and their final success reported on. There are a number of people, who go to their family physician for economical reasons. A number of them still reserve the right to choose

their family doctor. He in turn will direct them to the specialist, or send them to a group of physicians whom he recommends. A few months ago the President of the United States chose his family physician to attend him while a resident of the White House. Although elected to the highest office in the land, he had not forgotten or neglected the family physician. He was appointed from private life in a small town and given the rank of brigadier general. If Dr. Sawyer is promoted as rapidly in the next few months as he has been in the past months, Brigadier General Sawyer will soon outrank General Pershig. It was the custom formerly for the surgeon general of the army or navy to select the physician for the President's family, but that precedent has been broken and the old family physician again outranks the specialist.

This brings us back again to the question of fees. Should we not have a committee on fees appointed from our own society, say a committee of seven, three of whom should be members of our council, two members from the surgical section and two members from the medical section of this society? This committee should take this matter under consideration and establish an outline of fees that would regulate like charges made for medical services and establish a maximum fee under certain conditions. Should not some standard of reward be set for scientific medicine and mechanical therapeutics? Should all the financial reward go to the mechanical therapeutist? We have medicine well divided by the different specialties, the chief among which are the dermatologist, neurologist, psychologist, cardiovascularist, orthopedist, pediatrist, gastroenterologist, proctologist, ophthalmologist, aurist, obstetrician, gynecologist, general surgeon, osteologist, roentgenologist, pathologist and lately they have added a new specialty, that of Lympho-mucomembranist. He treats the lymphatic system and mucous membranes, removes nasal spurs, tonsils, internal hemorrhoids, treats endometritis, cystitic, bronchitis, etc. If I were choosing a specialty to-day, I would select the last. Take away diseases and pathology covered by this group, and well we may ask what is left for the general practitioner or the family doctor. In a few years the rarest of all specialties will be the specialty of "General Practitioner." The out-door doctor was alluded to in a letter published in the *Journal of the Michigan State Medical Society,* this year, as being a "Bird Dog" for specialists. This phrase appears to be quite apropos to the situation. Will the medical student of the future (if any such there will be, for the outlook at present is not inviting) strive with energy to be a so-called "Bird Dog" or will he early aim at a specialty? My opinion is that he will choose the latter as the former is supposed to work for a minimum financial reward. When the specialist receives his reward, there is nothing left for the "Bird Dog." It must be remembered that over sixty per cent. of the people of the United States are under the treatment of a family physician.

HOSPITALS.

A report was read before the American conference on Medical Education and Hospitals at Chicago, March 19, 1921, on hospitals. Much has been said in recent years on the amount of bed space necessary for communities where hospitals are required and that hospitals were overcrowded. A special committee reported that there was over six thousand hospitals in the United States. They gave a list of hospitals in tabulated form: the number of hospitals with the bed capacity in each, in each State. We note for the State of Michigan that they give eighty-nine so-called general hospitals with a bed capacity of nine thousand two hundred and thirty with the number of beds not in use. The average number of beds in use of this nine thousand two hundred and thirty, are five thousand and ninety-five. This report is for the year 1920, which was considered a good year in business affairs and all hospitals should have been well filled during this period as that was a time when people, who desired to avail themselves of hospital services had sufficient money to gratify their wishes. The report for the United States shows that the average amount of bed capacity occupied throughout the United States is sixty-seven per cent. This then would show that these institutions have one-third of their bed space unoccupied at all times. It also shows that these hospitals are not well distributed for in our own State there are thirty-five counties that do not have a hospital. There are other counties that have several hospitals, which are situated in close proximity. Hospitals are founded or established to please a few people associated with a certain church or they are established by a person or group of persons, who wish to do something for charity. As a result, they are not conveniently placed for the benefit of the public. In some places there are more hospitals than are necessary, while in other places, as stated above, there are thirty-five counties without any hospital at all. It must be a great expense for any business to have one-third of a building un-

occupied. It would be a great expense if manufacturing or business institutions had one third of their factory or plant unoccupied although fully equipped. Hospitals are expensive institutions to run when they keep up to the demands placed on them. Many of them have gone beyond the income received from their endowment funds and are now showing a deficit in their annual reports. Would it not be better to have these hospitals managed or controlled by a hospital commission so that these hospitals might better serve the public? Their beds could then be occupied. As it is now, people sometimes wish to go to a certain hospital which is full because they desire a certain physician. All the better hospitals are now being standardized by the American College of Surgeons. There are in the United States four hundred and eighty-three standardized hospitals where internes can be taught and in these hospitals medical students may be given the last year of their medical course. If these hospitals are standardized, why should not the attending physician at one standardized hospital be allowed to send his patients to another standardized hospital; or why should he not be allowed to treat patients in any standardized hospital thereby adjusting the bed capacity and rendering equal services to all patients at much less expense to the public. It costs every institution that has one-third of its beds unoccupied a large amount of money and this shows in its annual deficit. If hospitals were more evenly distributed there would not be so many empty beds. Several hospitals should not be grouped in one county while thirty-five counties go without a hospital. This condition could be regulated by a hospital commission. The people of Michigan have been very generous in giving money to hospitals and have left large amounts in their wills to go to certain institutions. It would seem that this money should be handled so that it would be of the greatest use to the greatest number.

Recently closed hospitals have sprung up among us. A typical closed hospital allows patients to be treated only by those, who are appointed on the staff of that hospital. Of the same type of institution is one in which the staff are on a stated salary. The hospital collects all fees from the patients, medical, surgical and otherwise and pay the members of the staff a definite salary each month. Many times the patient does not know the name of the surgeon, who did the operation. This takes away all the personality and the humane side that formerly existed between patient and physician. The patient is simply known by a number, the physician also. This system would not exist if it were not that some members of the medical profession feel like selling their services at a low rate, say six dollars a day. We are informed that a large number of those acting in this capacity receive the above amount. Whether they believe that this is ethical or not is a question for the medical profession to decide. These institutions advertise these men as having great skill and being men of super ethics and also that they are graduates from the best medical college. This may be true but there should be one code of ethics in medicine for all schools. These physicians say that they are not responsible for the advertising that appears in the daily newspapers and that they are working only for their salary. If this type of work will bring the best to patient and physician, I am doubtful. He, who toils in any occupation for salary alone never reaches a high goal in the estimation of the public. But as the graduates of this school have always maintained that they are super human, there seems to be no code of Ethics to which they bow. They feel that they are licensed to ignore all Ethics and forget that medicine had an honorable and scientific career long before Johns Hopkins University was founded. They are more anxious to bring profit to their employer than to bring honor to medicine. If this system of contract medicine is endorsed, it will be but a short time until our large department stores have a medical department with two or three hired physicians, who will examine and treat all patients at a rate say of five dollars per head, the five dollars, of course going to the employer.

If all graduates were to sell their services to some hospital or institution at a minimum rate what would eventually become of the practice of medicine? It would then soon be reduced to a trade proposition with some wealthy person or group of presons receiving the reward and all that the great men in medicine have striven for in the past centuries would pass from the high plane it now holds, the honor of medicine would pass to groups or persons of high financial rank.

During the last legislature a bill was amended so as to allow a graduate of any chartered institution to practice in the State of Missouri. This means that a person with a diploma from any institution whatsoever would be allowed full privileges with the most skillful regular practitioner. This again shows that the people in general are willing to place on the same plane of equality and achievement those, who claim they have no science or knowledge of medicine but who believe in the mystery of

the hidden cults, which may be practiced in an ocult fashion. Again, we ask, why is this? Has medicine not lived up to its expectation? Has the medical profession of the State of Missouri not lived up to the public demand? I think they have. The answer is that propaganda for something new, something mysterious, for something in line with Grecian mythology has appealed strongly to the people of the State of Missouri. How is the patient, who does not reside near a medical center to be cared for? Are we to establish there small hospitals with a group of physicians and surgeons or shall this patient be transported to a medical center where he may get in touch with the skill of the specialist? The health center system would be ideal if we had a hospital in every county of the State supervised by efficient medical men.

If the State and county could be convinced that this would be a profitable investment the matter could be considered.

There seems to be a tendency on the part of the people of our State to restore and promote good health among the people, but the State and county first wish to be assured that this will eventually prove profitable to our State. Until that time they seem to be reticent to place any burden on the taxpayer greater than he is now paying. The person, who is in good health and has always been in good health does not see why he should pay for services rendered another person, who happens to be in ill health. He argues that ill health is often the fault of the person, who becomes diseased. To bring these ideal conditions about, which are supposed to be for the benefit of the public, it requires in all instances an act of our legislature endorsed by the chief executive of the State. The Michigan State Medical Society desires and wishes to do whatever is best for the health and happiness of the people of Michigan, but our State Society is opposed to any legislative changes that does not recognize the principles that they have adhered to for centuries the germ theory of disease and preventative medicine. They are firmly opposed to any cult or pathy which does not recognize these great principles in the cure of disease. They will make a great effort to prevent the legislature putting on our statute books any laws, that would be looked on as a disgrace to scientific medicine and a curse to the community. How is this to be prevented? There is only one organization, whose interests are such that they will fight for these high principles and that is the Michigan State Medical Society, and we as a society must form a strong organization to place before the people and the members of our legislature the plain facts and ulterior motive of non-scientific cults. I believe that we must not be too Ethical in placing our position before the people. Let us appeal to the court of public opinion, tell them what our aims are, what we have sacrificed in the past and are willing to sacrifice in the future. Physicians must inform the public in meetings, public gatherings and at every opportunity of the great benefit that regular medicine has been to the community. I would recommend strongly to this society that we appoint an active and enthusiastic legislative committee to consider these matters. I would recommend that each county society appoint one member on this legislative committee: that the president of the society appoint five members; that these committees elect their own secretary and also a treasurer and that they have full charge of all matters before our legislature and that all recommendations made by this committee must be followed out by the other members of the association. We had some experience during the last legislature in which a legislative committee were following a certain policy and we found that other members of our society had quietly endorsed some bill and when we appeared before the legislature we were informed that this bill had been endorsed by Doctor so and so. If we are to maintain our dignity we must establish a system of loyalty to each other. In the legislature that just adjourned these cults presented their bills to a health committee of five in the House, three of these five legislators were devoted to Christian Science. Christian Science does not recognize medicine. How could medicine have an equal chance when it had against it a committee of five, three of whom were utterly opposed to its principles. This was clearly shown when a bill was enacted giving Chiropractors a State Board of their own. They were to be allowed to treat contagious diseases and to attend confinement cases. This bill had no trouble in passing the House and the Senate afterwards pased this bill with a good majority. The reason that it is not upon our statute books to-day is because we had in the Senate a physician, who is a member of our own State Society, Senator O. G. Johnson, M.D. of Tuscola county. It is due to his efforts that this bill was reconsidered and returned to the Senate. I shall quote here his messages sent to our committee. (First) "The Chiropractic bill was reported out of committee to-day and passed by the House. I have suggested reconsideration. Have physicians and others send all telegrams possible to the Senators." This request was immediately complied with. A

committee meeting was hurriedly called and a night letter was sent to every county secretary in the State, also to the health officers of the State requesting them to object to the bill. They were asked to communicate at once with their Senators. Over two thousand telegrams were received by the Senate in forty-eight hours. The second message from Senator Johnson was as follows: "I succeeded with the aid of telegrams which were sent in to-day, in having the Chiropractic bill laid over until Monday, (this was Friday), when I hope to be able to have it amended in the form that will make it more acceptable. There is a bare possibility that I may succeed in killing the bill." He did kill the bill. Where would we have been to-day had not Doctor Johnson been in the State Senate? The friends of the bill appealed to the Governor requesting him to return the bill to the Senate. A third alarm was sent out. A few members of this society appeared before the Governor. They argued for several hours and it was finally decided that Senator Johnson had killed the bill. This proves one thing, and that is, that when the members of the State Society are called upon by special request to perform a certain act, they respond almost in unison. If we are properly organized and are in unison, we can do this again and again and if this feat is performed two or three times, I am doubtful whether there will be any bill introduced and passed like the bill that was passed in the State of Missouri. Right here, permit me to say, that for us to have a successful legislative committee, that committee must have a fund. Each county should raise so much and place it in the hands of the committee and ask no questions. The Chiropractic bill would not have met with such support had it not been well backed by its financial agents. Let us in the next legislature have our fund and be ready. I might say that the State legislative committee appointed by the State society consisted of three members, who did good work, but unfortunately they did not have adequate financial support.

The Legislative Committee of Wayne County organized early in December, raised a fund sufficient to meet the demands made upon it. Dr. J. B. Kennedy, of Detroit, was chairman of this committee and I trust that we shall have a chance to hear from him because he may say things that might not be wise to put in a report. Let us also at the same time hear from the hero of the last legislature, Senator O. G. Johnson of Tuscola county.

Should compulsory health insurance be put in force, we would probably be in the same condition as those countries that have it, namely, Great Britain, Austria and Germany. Great Britain is at the present time having a great deal of trouble. They have organized what is known as a medical trades union. The progress of medicine in these countries is now at a standstill. Let us have a committee from our own Society that will take this matter up and place it in a dignified form before the legislature. As to the Chiropractor and the other cults let them remain where they are for the present. They will be taken care of later. I trust sufficient interest has been made manifest by the members of this society during the past six months that our membership will increase and that every person who belongs to the Michigan State Medical Society will feel that he has done something for the science of Medicine. Let us aim to make our State Medical Journal the guiding spirit of our society. Let the county secretaries strive to have some one in his county have an article in the Journal at least once a year. Let it be looked upon as our source of information as well as to advance medical science. When we read the editorials and articles in our Journal let us feel that they are for the benefit and guidance of the members of the Michigan State Medical Society. Let us have a strong society, a large and united society and when we read in our daily papers that compulsory health insurance, state medicine and the different cults are going to do so and so in Michigan at the next legislature let us be ready to say that only such legislation that will bring honor to our State, uphold and recognize scientific medicine, and be for the benefit of the community, shall be permitted to be talked of in our legislative halls.

SOME OF THE MANIFESTATIONS OF THE DAMAGE FROM LABOR.

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The great diversity and far-reaching morbidity resulting from structural or physiological harm occurring during labor, impresses one with an ever increasing regard for the slightest abnormality occurring at birth.

I will attempt to cover only a few of such conditions, viz., those which have been forced upon my attention by their unusual character and cases which have been frequently brought to my notice during various hospital services.

Birth trauma to the mother as to the child may show no untoward effects for months or even years. For example—bruising of the mas-

toid process with a forceps blade produces no result until some inter-current throat trouble passes bacteria to the devitalized area and then ear disease results.

A mother may develop severe nervous symptoms years after a pelvic ptosis in which the uterus and ovaries have been gradually packed down into the bottom of the pelvis; the ovaries, uterus and tubes being massed against an inflamed and dilated rectum. Such a condition is only appreciated by frequent handling during operation of the pelvic contents associated with a typical history and followed by a cure when the uterus and ovaries are lifted and held up thus relieving the congestion and pressure. Hirst reports the cure of a case of hystero-epilepsy by such a procedure.

The nervous system is the first to suffer from distant structural change and the pelvic organs should be replaced before the nervous system is irreparably damaged. The great reason why these operations fail is because the phychiatrist waits too long.

I have been much impressed by the number of women who have suffered from moderate psychosis following child-birth. The mild grades do not seem to be recognized and the women go on the downward path of increasing irritability often having more babies until they become a mental burden to themselves and a source of continual care and annoyance to husband and friends.

The cure of such a condition is, in the first place, its prevention. The obstetrician must be to some extent a pyschiatrist.

I will omit a discussion of prenatal care in this paper as I wish to emphasize the effect of even mild grades of birth trauma upon the nervous system of women of poor resistance. A large percentage of pregnant women have a secondary anaemia which is exceedingly bad for the brain tissue. My principal point is that what one woman can stand as regards physical pain or actual structural damage to her pelvic organs is very little indication as to what another can recuperate from. Following an apparently normal labor in women of the better class, highly educated, of marked self control who do not complain during labor, we frequently find unmistakable signs of severe damage to their mental make-up. In some of these women the self control which they exercise is an added strain to their higher centers and a severe mental break may come with little warning. In a greater number of similar women or those of a low vitality, a normal labor will have the effect of great mental strain leaving them after a time with their stamina and poise completely drained away—a mental rag as it were—complaining of everything from doctor to husband.

The lesson to be learned is that some women can not stand mentally, although they may physically, a practically normal child-birth. These mothers should have it impressed upon them that they are absolutely safe as many of them expect to die, and should be protected from the kind friends who delight in telling them the horrors of child birth.

During labor they must not be allowed to suffer long hours and their pains must be relieved. Nitrous Oxide gives wonderful results when administered by an expert. It is far superior to twilight sleep and when the gas is used, I see little to be desired.

Gas given with each contraction eliminates largely the physical pain and the brain instead of being keyed up by each succeeding pain, is dulled and calmed. Intelligent and kindly encouragement in the intervals of the contractions have marked effect on the patient and add greatly to her comfort. Here is a chance for real psychotherapy which is always highly appreciated by intelligent women.

Gas properly administered will not increase the time of labor. It is expensive and requires a special apparatus but people must be educated to pay the obstetrician properly for such care. The confinement fee should be raised and this can be done if you explain to the patient and husband (together) how much it means to both of them and to the child. It is money well spent and will save them hundreds of dollars later on. The biggest mistake a physician can make is to accept a confinement fee at so low a figure that he must of necessity neglect his patient.

If they will not pay you properly for your time, it is far better for the patient and for you that they employ a midwife who will not apply forceps or use pituitrin to simply hurry the labor for the attendant's sake. The mid wife can wait many hours for a few dollars. You can not do good work unless you are adequately paid. I am not urging you to charge poor people. They are a sociological problem and therefore a community responsibility. The doctors can not handle such a tremendous economic problem alone. We have always done our share of charity and the community must be educated to do theirs.

When you fear for the mother's nervous system, you must decide how much she can endure of fatigue, trauma, fear and anxiety for herself and baby and, after the birth, the effect upon the brain of mild grades of infection, the

possible lack of some of the horomones in the puerperium, focal infection, etc.

Among some of the rarer forms of pelvic trauma, I have noticed in a few cases a separating or dissecting injury of different parts of the pelvis floor, sometimes exposing nerve terminals. In one such case, the tissues near the crus clitoris and ischio-cavernosus muscles were separated. This wound began in the fascia lata and involved the inferior pudendal nerve passing to the deep layer of the triangular ligament. The injury had not been recognized and gave the patient much distress while sitting. The dissecting injury did not extend through the vulva and vagina nor was it a lacerating perineum in the usual meaning of that term. It was essentially a separation of the structures mentioned. Ater these various tissues were approximated, and the nerve endings covered, the distress departed. The condition is comparable to an exposed nerve in a tooth.

Other cases of separation of the vaginal layers have been noted; e.g., the mucous from the muscular (there being no submucus layer in the vagina) which perhaps is the cause of the separation. It would seem that almost any of the tissues of the pelvis might separate one from the other and a devitalization of the nerve result. That such a condition could cause disagreeable symptoms would be hard to disprove. The dropping of the urethral orifice after parturition is a separation of layers, something of the same character. The displacement of the trigonum in such a condition is said not to cause symptoms but one feels doubtful about such an assertion.

When one sees the absolute loss of vaginal rugae, in some cases shortening of the vagina without perineal lacerations, uterine ptoses in virgins, it is evident that there has been a separation in various anatomical layers, and yet no tear. When operating upon some of these cases, I have been much impressed with these facts—first, that the layers were separated and second, that further separation was so easy that to continue the dissection seemed most unwise. These anatomical changes are not easy to find and require a careful examination.

In one case, a separation of the mucous from the muscular layer of the vagina added to a slight laceration and infection, produced a blind fistula most difficult to repair. As the mucus and muscular wall posteriorly kept separating indefinitely, it was not feasible to cut a second opening to open the entire fistula as is usual. There was no end to the splitting apart of the mucus from the muscular layer. The condition was finally cured by injections of iodine and keeping the lower end of the fistula open.

A narrow outlet of the bony pelvis is a potent cause of injuries to those parts, because of interference with rotation of the head and shoulders.

About thirty cases of infection of the pelvic veins have impressed me with the frequency of mild grades of this condition. The picture is about as follows: From five to seven days after delivery, the temperature rises to 102-103 and the patient complains of pain in the calf of one leg. Palpation of the gastrocnemius muscle produces exquisite tenderness extending up the inner side of the leg along the internal saphenous vein and into the pelvis on the same side. The uterus itself is not tender but the inner wall of the true pelvis from the ilio-pectineal line to the white line and the pelvis fascia of inner wall of levaterani is very tender. In other words, all the veins of that side of the pelvis are tender upon pressure.

This is an immature milk leg or phlegmasis albadolens as described in the text books—easy to recognize if the veins pass on to suppuration and superficial rupture. My point is that suppuration and rupture are rare although this moderate infection is common. Why the pain is just produced in the distal ends of the internal saphenous vein instead of in the pelvis, is interesting. It is probably due to the proximity of the nerves of the skin to the distal venous channels. The veins in the pelvis have more room to become engorged so pain does not begin there. The ovarian veins have been removed for this condition though this seems hardly logical when the great venous channels in the pelvic wall are left untouched and must also be infected. To sum up these cases of infection of the pelvic veins:

1. They are common and we must palpate for them.

2. They are frequently unrecognized. This lack of recognition is partly due to the fact that they do not suppurate as in years past.

3. They are dangerous because of this lack of recognition as moving the leg about may cause embolism.

You must tell the patient's husband that the swelling of the leg may not go down for months or years or you may be blamed for the condition.

The relation of this infection to gonorrhea, I will not discuss tho in reviewing my cases, I have come to feel that such a relation does exist.

David Whitney Bldg.

THE PRE-TUBERCULOUS CHILD IN THE SCHOOLS.*

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It takes a considerable amount of courage for me to attempt to talk on problems of tuberculosis before this audience, and I might confess, here and now, before I have gone far enough for you to find it out for yourselves, that I do not qualify as an expert. We have, however, this much in common; both you and I are interested in tuberculosis prevention. You are interested in it as an important part of the study of tuberculosis, and I as an important part of the general problem of the prevention of disease in children.

Strictly and scientifically speaking, we might class most school children as pre-tuberculous, if this term means to you, as it does to me, potentially tuberculous, or in other words, infected with and harboring the bacillus of Koch, and under the proper circumstances, a possible sufferer from the disease tuberculosis. I think that it is the concensus of opinion, among those qualified to hold an opinion, that from 50 to 100 per cent. of our children have a tuberculous infection. Doubtless we will all agree, however, and rightly so, that there are certain children or groups of children, who are especially prone to develop clinical tuberculosis, and it is our purpose in the schools, first to find these children and then to give them such special care and their parents such special instructions as shall help to prevent the development of active disease, or help to secure the arrest of active tuberculous lesions already present. We have then a heterogenous group of children, whom we call for practical purposes, pre-tuberculous. Included among these I place those children with prolonged and intimate exposure to open tuberculosis, the markedly undernourished; the so-called "delicate child," particularly those with what the old clinician was used to call, "the tubercular diathesis," and I might say parenthetically that this is a fairly well defined class with almost a familiar resemblance among its members.

We must also suspect the child with prolonged convalescence from the acute contagious diseases, particularly measles, whooping cough and influenza; certain children with diseased tonsils, especially those with sub-acute and chronic tonsillar infections; the children with chronic and well marked enlargement of the anterior cervical glands, independent of evident disease of the throat and mouth.

Doubtless many will disagree with the inclusion of a class of tonsil cases among the pre-tuberculous, but Canfield and Warthin have shown with what remarkable frequency tonsils removed in the University Hospital have had present active lesions of tuberculosis. I have the feeling that the tonsil is the one most important and frequent avenue of tuberculous infection, although I have no positive evidence to this effect.

In addition to these children we have those who have definite clinical evidence of tuberculosis, the arrested or quiescent cases of bone and lung infection, those with phlyctenular conjunctivitis which May has proven to be practically always tuberculous, and those children who have what was once a clinical entity but now is losing in popularity, namely scrofuladerma.

Having thus loosely classified the objects of our attention, how can we help them, how can we keep them in school and at the same time decrease the possibility of eventual tuberculous disease. We say "by increasing the resistance" (whatever that may mean) and by improving their general physical condition. The first step is in flagging the attention of the parents. It is a surprising thing to me, with what calm complacence parents will regard their children's physical imperfections, if only they are of gradual enough development. They either overlook completely or accept as a dispensation of divine providence the fact that their child is definitely and decidedly below normal physically.

Having approached the parents the next thing is to secure a complete and thorough physical examination of the child and a detailed and exhaustive inquiry into his mode of life, and of these two it is hard to say which is the more important. It is my experience that poor hygiene as a cause of poor health is more frequent than definite evidence of any disease condition, in a ratio of at least two to one. Poverty as a cause of undernourishment is relatively unimportant, in fact the condition is at least as common among the children of the well-to-do as among those of the indigent. Definite evidence of tuberculous infection is among the more infrequent findings in the examination of these children, although in this connection we must remember the extreme difficulty in the diagnosis of early lesions in children. As a bit of corroborative evidence there is the von Pirquet test. I regard this as very important and have more confidence in it than most people seem to have. As a matter of fact I find, among school children up to twelve or fourteen years, that a well marked von Pirquet is unusual in those who have no other evidence of clinical tuberculosis;

*Read before the Michigan Trudeau Society, Flint, Mich., April 16, 1921.

except when there is definite history of exposure to the disease.

The physical examination having been made and the data secured as to the child's home life, we have next to secure the co-operation of the parent in carrying out the treatment. Curiously enough, it is much easier to get this co-operation when there is definite pathology present. A parent will more readily agree to a surgical operation, say for the removal of tonsils, than he will to alter his child's habits of eating or sleeping. After three years of this kind of work, I have only the greatest sympathy for the physician, who failing a definite diagnosis, will say that the patient is threatened with tuberculosis, or some other disease. People want a definite name for their troubles.

In the care of these cases, our most important aids are the fresh air school room, and the nutrition class, which is essentially identical in plan without the expense of equipment.

The fresh air room occupies the same place in the care of the pre-tuberculous child that the sanatorium does in the care of clinical tuberculosis. It is primarily educational. It teaches by precept and practice, right living. To be sure it offers in addition, fresh air, lunches and rest periods, but these are of minor importance. It puts practical hygiene in the school curriculum in a way no other method seems able to achieve and makes it a live subject to the children. And once having reached the child we need no longer worry about the parent. His conversion follows automatically. It teaches the child that good health is worth while and arouses his interest in securing it for himself. It gives him a personal competitive interest in having his teeth fixed, his tonsils out, his errors of refraction corrected and weight up to normal.

A more recent development, which aims to accomplish the same end, is The Modern Health Crusade. If the National Anti-Tuberculosis Society had accomplished nothing else, its existence would still have been justified. The Modern Health Crusade makes observance of the common rules of hygiene a game and a habit.

There is no question but what these things secure concrete results and are well worth while. The only difficulty is in making people in general appreciate not only the benefit to the individual but also the fact that it is a good investment financially. The children in our fresh air rooms gain in weight from three to six times as rapidly as the average school child. They are more free from acute infections of all kinds, have better attendance records, and get a basic training in hygiene that is of inestimable value. Parents of children who have been in a fresh air room learn to appreciate the value of them. Almost without exception when a child has done well and has been returned to his regular class room, a father or mother will come with the plea to put the child back in the fresh air room so that he may remain well. And they ask the very apt question, "If this is good for delicate children why isn't it good for well children? Why don't we have it for every child?"

Health work pays not only in the fresh air rooms but in the whole school system. In one of our schools with probably 90 per cent. of its attendance drawn from the children of foreign laborers, retardation has declined 50 per cent. in the last three years, during which time the Health Department and the Board of Education have been actively pushing medical and dental and nursing work in all the schools. One class in this school, in which every child has had all defects corrected has gained a half grade this year and has a record of but one child absent on account of ill-health this year. It PAYS.

CHEMICAL BLOOD ANALYSIS AS A DIAGNOSTIC AID.*

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This article is a resume of the results obtained from recent work done on chemical examination of the blood. It is intended to include a few words of friendly advice and suggestion from the laboratory to the doctor and in a measure to condense much that has been written on this subject in order that the laboratory may be of greater service to the clinician and co-operate with him more thoroughly. Accurate data on the chemical composition of the blood have been obtained through observation and experimentation in the hands of such men as Folin, Benedict, Van Slyke, and Meyers during the last few years. Therefore the literature on this subject has been quite meager and only very recently has the valuable work been published. For this reason the average busy physician and surgeon has not been fortunate enough to find literature accessible or the time available to acquaint himself with this valuable branch of laboratory work. Laboratory workers are constantly being called upon to state a few fundamental principles of blood chemistry We in the laboratory are very glad to discuss this important and interesting subject with as

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many doctors as possible in order to encourage a much more extensive use of these examinations, and only regret that we are not able to answer more questions and talk more extensively with the profession. The limitations of individual conversation make a few written words advisable.

We no longer look upon the chemical examination of the blood as belonging to experimental physiological chemistry, but as something that has an everyday practical application in any clinical laboratory. The introduction of micro-chemical methods by Folin and the perfection of the colorimeter has made possible the use of blood chemical analyses as a bedside aid to diagnosis. Blood chemistry fills a big gap left open by the older methods of laboratory examinations such as cytology, bacteriology, and serology. It gives much additional information to, and appears equally, if not more valuable than any other branch of laboratory work. We have been accustomed to depend greatly upon urinary findings and while we do not wish to replace urinalyses or any other branch of laboratory work with blood chemistry, yet we can safely say that results obtained from chemical estimation of the blood content are both of greater service and give more hitherto unobtainable information than the most extensive qualitative and quantitative urine chemistry.

These two important analyses should go hand in hand. The urine tells us something about kidney function and about pathological changes in the products excreted. The blood chemical analysis on the other hand tells us what products and ingredients are retained, detects changes in the blood composition exceedingly early, and is a real index to metabolic changes and renal function. It is due to the fact that blood chemistry gives us results that are in no other way obtainable that the work promises to be of the greatest aid in diagnosis, prognosis, and differential diagnosis. Now in order to illustrate some of the applications of this work a few specific instances can be cited, and it is probably most convenient to consider the important constituents of the blood, one by one.

We will first turn attention to sugar. Glucose occurs normally in the blood in amounts varying from .08 to .12 per cent. The renal threshold for sugar elimination is not constant but it is usually around .17 per cent. Excessive carbohydrate feeding ordinarily produces glycosuria but does not materially raise the blood sugar above the threshold point. Nephritis oten raises the threshold above .2 per cent. and occasionally, but rarely, the threshold is lowered in nephritis. In mild cases of diabetes the threshold is normal but in more advanced cases it is usually raised. In renal diabetes we usually find it lowered. The threshold varies greatly and for that reason blood sugar determinations are very important because many diabetics show a high degree of hyperglycemia and no glycosuria. So a negative finding of sugar in urine means little. On the other hand a positive urinary sugar finding does not convey a large amount of intelligence because it gives no accurate information regarding the permeability of the kidney, which is such an important factor. For illustration we will assume a positive test for sugar in the urine. We are simply told that a condition of glycosuria exists. It does not mean, however, that a condition of hyperglycemia also exists because in renal diabetes there is sugar present in the urine while the blood sugar is practically normal and in some cases, as mentioned before, the threshold point of sugar excretion is below the normal level. This is an excellent example of the possibility of making a differential diagnosis by using both a blood and urine sugar test. Now we will assume a condition where the urinary sugar test is negative. Glycosuria is absent but the amount of sugar in the blood may be twice or three times normal. It is quite probable that many individuals are diabetic and still have no presence of sugar in the urine, because glucose may increase enormously in the blood and still not overflow into the urine. We are equally, if not more, concerned regarding a condition of hyperglycemia as glycosuria and a blood sugar determination together with a urine examination will reveal fully what we should know. The blood sugar estimation can be made equally as well on blood cells, blood plasma, or whole blood, as the glucose content is practically the same in each.

In connection with the treatment of diabetics the development of acidosis is always a possibility. Acidosis is a term which receives wide misapplication, at least from a laboratory point of view, especially in surgical cases. Acidosis does not exist merely when acetone appears in the urine. Normal blood plasma is capable of absorbing from 60 c.c to 70 c.c of CO_2 per 100 c.c. If this figure falls below 50 a condition of acidosis exists. The estimation of the CO_2 combining power of the blood is a comparitively simple procedure by the Van Slyke method. Acidosis may be produced by the ketosis of diabetes, the retention of acid phosphates by the kidneys, decrease in blood carbonates, or the decrease of CO_2 excretion by the lungs. The

common clinical procedure of giving sodium bicarbonate until the urine becomes alkaline is often quite inaccurate because bicarbonate retention by the kidneys would indicate a more severe acidosis than really exists. The value of determining the CO_2 combining power of the blood in connection with nephritis and infantile diarrhea is worthy of consideration. Ether anesthesia lowers the power of the blood to absorb CO_2. Acidosis does not mean that the blood ceases to be alkaline because life cannot continue if the blood is acid. When the alkalinity is first reduced, the ammonia is increased and comes to the rescue, and it is only when the ammonia is all used up that acidosis results. The presence of acetone, B-oxy-butyric acid, and diacetic acid in the urine usually means acidosis, but does not indicate the degree of acidosis, and does not mean that the blood is acid.

Undoubtedly the most valuable and most widely used branch of blood analysis is the determination of the non-protein or non-coagulable nitrogen compounds, which can be divided into the three most important constituents, namely, uric acid, urea, and creatinine. Non-protein nitrogen constitutes approximately 1 per cent. of the total nitrogen of the blood, yet recent investigation has dealt principally with this form of nitrogen and consequently we are at the present time more interested with these substances than with the protein nitrogen. Non-protein nitrogen is present in the blood normally to the extent of 25 to 30 mgs. per 100 c.c of blood. It is important to know whether or not the total non-protein nitrogen is increased but the knowledge which can be obtained regarding the three constituents above mentioned is even of greater value. Let us consider the relationship between these. Uric acid is very insoluble, only one part being soluble in 40 parts of cold water, and urates under the conditions as they exist in the body, are only one-tenth as soluble. Urea is more soluble and creatinine is very soluble. The ease with which the kidney eliminates these substances is directly proportional to their solubilities, which means that creatinine is the easiest for the kidneys to eliminate and uric acid the most difficult. In other words, when kidney function is first impaired there is an accumulation of uric acid in the blood. This is the first ingredient to be stored up when, for instance, the phenol-sulphonephthalein test shows a beginning of deficient elimination. This is explained by the fact that of all the blood constituents uric acid is the most difficult for the kidneys to get rid of and naturally when the function of the kidney is interfered with, the substance most difficult to eliminate will be the first to be retained. As the functional activity of the kidney is lessened, urea will next be stored up in the blood. Creatinine being the easiest for the kidneys to expel will be the last to be stored up.

Urea nitrogen is normally present in the blood in amounts varying from 12 to 15 mgs. per 100 c.c. Urea is formed as a waste product in the liver, coming from amino acids set free in digestion, which have first been converted to ammonia. It is, therefore, purely exogenous in origin. Uric acid is derived from purin, which is first changed to xanthin, and finally to uric acid. Its source is partly exogenous and partly endogenous. About one-half that occuring in the blood comes from purin bases present in food, and the other half from the body tissue glands. A purin-free diet lowers the blood uric acid but does not remove it. The uric acid content of the blood is normally from 1 to 3 mgs. per 100 c.c. Creatinine is purely endogenous, coming from muscle tissue. It is present normally in quantities ranging from 1 to 2.5 mgs. per 100 c.c.

The distribution of uric acid, urea, and creatinine in the blood and in the urine is entirely different because the kidneys normally concentrate creatinine 100 times, urea 80 times, and uric acid only 20 times. A change in the kidney permeability soon changes these figures. Urea nitrogen constitutes normally 50 per cent. or a little less of the total non-protein nitrogen of the blood but in pathological conditions this percentage is soon increased. It is important that we have it firmly in mind that the order of accumulation of the three most important non-protein nitrogen compounds in the blood is uric acid first, then urea, and creatinine last. In the early stages of a kidney deficiency we would expect an increase of uric acid in the blood. In the moderately advanced stages the uric acid and urea would both rise. In a far advanced case the uric acid, urea, and creatinine would all be present in amounts above normal.

Of course we are most interested in the clinical application of this work and a few examples can be briefly stated. Assume a beginning case of chronic interstitial nephritis. A urine examination is probably made but tells little. Albumin and casts may be present but this simply signifies in a vague way kidney disease which we must clearly distinguish from kidney function. We are seeking information about kidney function and metabolic processes and so we examine the blood. The ingredients will be retained or accumulated in their usual order:

first uric acid, next urea, and if the stage is reached, we will say, where uremia sets in, creatinine will probably be increased also. And in many such cases the urine findings remain normal throughout.

The increase of creatinine has undoubtedly the most clear cut clinical significance. A marked rise in creatinine should cause the gravest concern. Normally it seldom exceeds 2.5 mgs. per 100 c.c of blood. Figures above this should cause suspicion of kidney involvement. Amounts up to 5 mgs. indicate a serious condition, and 5 mgs. is taken by most workers as the prognostic fatal point in chronic cases. In practically every case of chronic interstitial nephritis in which the creatinine rises to or above 5 mgs. per 100 c.c. the outcome is fatal. It is difficult to find record of a case where the creatinine was found to be present in the blood to the extent of 5 mgs. per 100 c.c that death did not follow in a month or two after this concentration had been reached. In some acute conditions there might be frequent exceptions to this. It must be emphasized, however, that only a high creatinine content possesses an important prognostic value. A low creatine does not always mean a favorable prognosis, because death may be impending and still the creatine may not be higher than 3 or 4 mgs. per 100 c.c.

Uric acid is increased in gout in practically every case, which fact plays an important part in distinguishing between gout and arthritis, the uric acid remaining normal in the latter. In gout the urea and creatinine are about normal. Of course this blood picture is typical of an early chronic interstitial nephritis, but it must be remembered that all laboratory work is valuable only when correlated with the full clinical evidence. In parenchymatous nephritis the uric acid shows no noticeable increase, although the rise in blood chlorides is here marked. In lymphatic leukemia there is no appreciable change in urea and creatinine but the uric acid rises, the surplus being derived from endogenous sources. It is found in severe infections, especially pneumonia, that the non-protein nitrogen is increased and upon running the complete partition it is found that the rise is especially marked in uric acid. In early cases of lead and mercury poisoning there is a rise in uric acid. Later the increase is very marked in urea and creatinine as well, the urea having risen to more than 300 mgs. per 100 c.c in some cases.

Urea is increased in numerous conditions besides the terminal stages of chronic interstitial nephritis, the most common of which are bichloride of mercury poisoning, some cases of acute nephritis, malignancy, lead poisoning, pneumonia, intestinal obstruction, and many renal complications, a common example of which is that following scarlet fever.

Of course there is a close relationship between all the non-protein nitrogen compounds and it is rare that one is affected alone. A few drugs, notably atophan, increase the uric acid in the blood as does a diet rich in purines. Salicylates and cinchophen decrease the amount of uric acid in the blood and increase it in the urine. However, there is no distinct relationship between that in the blood and that in the urine.

It is often difficult to decide what determination will give the most information on a certain case and we urge that the complete non-protein nitrogen partition of the blood be run as it is the amount of each ingredient present and the relationship of one to another that reveals the most. As a routine method in our laboratory, when no special determination is ordered we observe the procedure of determining the total non-protein nitrogen first and if this value should rise above 35 mgs. per 100 c.c, the uric acid, urea, and creatinine are then determined, the reasoning being that if the total non-protein value remains normal, its constituents will not usually be increased. However, we do not wish to encourage the physician giving us this liberty to too great an extent because his greater familiarity with the case will enable him to choose the laboratory work to better advantage. The total non-protein nitrogen estimation in itself gives little detailed or specific information but it is often valuable as a short cut. Good judgment, however, is the best asset and should prevail. Here I would like to mention a common practice among some doctors that I would like to discourage, namely, that of ordering a urea nitrogen estimation when a general insight into the total non-protein nitrogen is desired. It is strongly suggested that the total non-protein estimation be used for this purpose as the last named test is more simple, more accurate, and the results more comprehensive. The urea determination could more advantageously be used in connection with that of uric acid and creatinine.

An extremely popular test and one for which much has been claimed in the past is the phenolsulphonephthalein test. The measurement of the speed with which a dye is eliminated by the kidneys is beginning to be looked upon, and probably justly so, as an overestimated aid in diagnosis. Helpful it is true, but giving little more insight into the function of the kidneys than the positive or negative findings of albu-

min or casts in the urine. It gives in a rough way a picture of kidney function but not with the fine accuracy which can be displayed by a careful chemical study of the blood. Frequent experiences with dye elimination where the phenolsulphonephthalein output is low with fairly good kidney function, and again where the output increases with decreasing efficiency, together with the knowledge that the test has only a transitory value, leads us to depend upon it less than formerly. We are striving to find out what the kidneys are or are not doing as well as to indicate the relationship between nitrogenous and carbohydrate metabolism. As an index to operative risks, certainly a more comprehensive study of the patient can be made by a blood chemical survey than by the older methods of urine examination. The application of blood chemistry in connection with surgery is unlimited. A more favorable prognosis of an operative case usually follows when the blood sugar, uric acid, urea, and creatinine are normal, and the increase of any one of these substances gives valuable information to the surgeon. Blood chemical examinations are more indicated in urological surgery than any other, especially since the preoperative examination and treatment of cases for prostatectomy are considered so important.

The numerous other constituents of the blood have not as yet received enough consideration to make them worth mentioning here. It is quite possible, however, that some of the ingredients of the blood which are now considered too unimportant to estimate, may some day furnish much hitherto untold information. It remains for future research work to determine much of the real value of blood chemistry.

For the complete analysis of the blood, about fifteen cubic centimeters of the blood should be drawn in the same manner as drawing blood for the Wassermann Test, and transferred to a tube containing about eight drops of a 20 per cent. solution of potassium or sodium oxalate for every 15 c.c o blood to defibrinate. More oxalate must not be used because some of the tests might be interfered with. The specimen should be taken before breakfast or at least four hours after the patient has eaten. Breakfast can usually be postponed until an hour at which it is convenient to draw the blood.

Blood chemistry is a new subject. The aver-

TABLE I.*

—URIC ACID, UREA NITROGEN AND CREATININ OF BLOOD IN INTERSTITIAL NEPHRITIS**

Date, 1915-16	Case	Age	Sex	Diagnosis	Condition	Mg per 100 C.c. of Blood			Phthalein 2 Hrs., per Cent.	Systolic Blood Pressure	Urine	
						Uric Acid	Urea N	Creatinin			Albumin	Casts
I												
9/17	H. L.	23	♂	Pulmonary tuberculosis	Unchanged	6.5	16	2 7	58	130	++	+
8/10	E. H.	41	♂	Pericarditis	Unchanged	5.6	13	2 1	45	150	—	—
10/12	F. D.	45	♂	Interstitial nephritis	Unchanged	5.5	12	2.5	37	185	—	+
3/ 6	B. D.	35	♀	Diffuse nephritis	Unchanged	9.6	19	2 4	45	175	+	+
II												
8/11	J J.	65	♂	Early interstitial nephritis	Unchanged	9.5	25	2.5	13	185	+	+
7/21	D. S.	56	♂	Early interstitial nephritis	Unchanged	6.6	24	3.3	26	185	—	+
9/21	D. D.	52	♂	Early interstitial nephritis	Unchanged	8.7	20	3.6	20	100	+	+
8/ 3	C. M	54	♂	Early interstitial nephritis	Unchanged	6.3	31	2.0	23	150	—	—
III												
1/ 6	L. P	57	♂	Moderately severe chronic interstitial nephritis	Improved	8.0	80	4.8	0	240		
8/ 1						4.9	17	2.9	10	170	++	++
4/23	J P	34	♂	Moderately severe chronic diffuse nephritis	Improved	8.3	72	3.2	25	238		
5/21						5.3	21	1.9	43	145	+++	++
1/15	W C.	49	♂	Moderately severe chronic diffuse nephritis	Improved	9.5	44	3.5	38	210		
1/28						2.5	19	1.9	52	120	++	++
IV												
4/11	E. C.	50	♀	Typical fatal case of chronic interstitial nephritis	Died	22.4	236	16.7	0	210	++	Pus
3/23	T. D.	34	♂	Typical fatal case of chronic interstitial nephritis	Died	15.0	240	20.5	2 - 3	225	++	+
1/25	S. H.	37	♂	Typical fatal case of chronic interstitial nephritis	Died	14.3	263	22.2	0	220	++	+
4/15	J. W.	34	♂	Typical fatal case of chronic interstitial nephritis	Died	8.7	144	11.0	Trace	225	+	+

**Normal findings: uric acid from 2 to 3 mg.; urea nitrogen, from 12 to 15 mg.; creatinin, from 1 to 2.5 mg. per 100 c.c. The symbol ♂ signifies male; ♀ signifies female.

*Chase and Meyers: Jour. Am. Med. Assn., 1916, vol. lxvii, No. 13, p. 929.

age clinical or hospital laboratory has had limited experience in the work and the average clinician lacks experience in interpreting results. There is no doubt that unlimited information and aid can be obtained from chemical analysis of the blood and the value of the work is now only limited by the amount of experience in laboratory technic and clinical interpretation. These two features can only be improved by constant and increased use of the tests and it cannot be too strongly urged that a greater amount of chemical blood work be done. The laboratory should encourage the doctor, and the doctors should stimulate each other, to a greater application and consequently a greater realization of possibilities, understanding, and appreciation of blood chemical analysis. Gradwohl makes the statement that the routine ex-

TABLE II.

The Prognostic Value of the Creatinine of the Blood in Nephritis*

Case	Age	Blood Analyses Mg. to 100 c.c.		Time Under Observation	Outcome
		Creatinine	Urea N		
1	25	33.3	240	1 mo.	Died
2	39	28.6	186	3 wks.	"
3	53	22.5	106	2 wks.	"
4	37	22.2	262	5 wks.	"
5	34	20.5	152	2 mos.	"
6	17	20.0	209	1 mo.	"
7	43	20.0	162	4 days	"
8	25	20.0	108	3 wks.	"
9	53	19.8	114	2 wks.	"
10	19	19.2	164	2 wks.	"
11	20	18.9	141	2 wks.	"
11	20	18.9	141	2 wks.	"
12	30	18.7	68	1 wk.	"
13	40	18.3	246	2 days	"
14	48	18.1	172	1 wk.	"
15	34	17.6	85	2 wks.	"
16	50	16.7	236	2 days	"
17	33	16.6	182	7 wks.	"
18	42	14.7	170	3 wks.	"
19	39	14.7	148	1 wk.	"
20	29	14.7	77	2 wks.	"
21	24	14.5	123	2 wks.	"
22	25	14.4	141	2 wks.	"
23	44	13.5	147	2 mos.	"
24	40	12.7	116	3 mos.	"
25	27	12.6	110	3 mos.	"
26	52	12.6	78	5 days	"
27	46	12.5	210	3 mos.	"
28	30	12.5	76	5 mos.	"
29	--	12.5	97	1 wk.	"
30	34	12.5	110	11 mos.	"
31	38	12.2	72	6 wks.	"
32	51	11.6	57	1 wk.	"
33	32	11.5	102	1 wk.	"
34	8	11.1	90	6 wks.	"
35	41	11.1	91	6 wks.	"
36	36	11.1	139	1 wk.	"
37	34	11.0	144	2 mos.	"
38	30	11.0	97	3 days	"
39	33	10.7	78	2 mos.	"
40	17	10.2	307	1 wk.	"
41	26	10.0	112	3 wks.	"
42	30	9.8	62	7 mos.	"
43	78	9.8	60	2 mos.	"
44	64	9.7	70	5 mos.	"
45	30	9.5	140	2 mos.	"
46	51	9.5	89	6 mos.	"
47	69	9.5	89	2 wks.	"
48	--	9.2	54	2 days	"
49	56	9.1	224	2 wks.	"
50	43	8.8	55	3 wks.	"
51	27	8.3	59	3 mos.	"
52	40	8.3	75	1 yr.	"
53	57	8.2	95	2 wks.	"
54	20	8.0	131	5 days	"
55	50	7.4	81	1 day	"
56	67	7.1	82	3 mos.	"
57	8	7.0	94	2 mos.	"
58	46	7.0	78	1 wk.	"
59	64	7.0	128	21 mos.	"
60	60	6.9	97	2 wks.	"
61	43	6.8	105	2 mos.	"
62	47	6.8	77	5 days	"
63	69	6.7	104	2 wks.	"
64	20	6.7	38	3 wks.	"
65	61	6.6	133	2 wks.	"
66	70	6.6	219	3 wks.	"
67	53	6.4	26	8 mos.	"
68	53	6.3	97	1 wk.	"
69	56	6.2	53	8 mos.	"
70	46	6.2	39	5 wks.	"
71	52	6.2	70	4 mos.	"
72	45	6.1	114	2 wks.	"
73	21	6.1	72	2 days	"
74	8	6.1	106	1 yr.	Recovered**
75	60	6.1	41	3 yrs.	Unchanged
76	56	6.0	52	3 mos.	Died
77	59	6.0	169	3 wks.	"
78	21	5.6	70	18 mos.	Recovered**
79	50	5.5	62	3 mos.	Died
80	12	5.4	42	4 mos.	"
81	53	5.3	100	4 mos.	"
82	30	5.3	100	1 mo.	"
83	62	5.3	25	2 mos.	Unchanged
84	29	5.2	65	1 wk.	Died
85	21	5.1	42	5 mos.	"

*Meyers, Victor C.: Jour. Lab. and Clin. Med., 1920, vol. v., No. 8, p. 568.

**Acute nephritis.

amination of the blood will be required some day in making a clinical diagnosis. This statement appears to be overdrawn but it cannot be disputed that if this rule were observed, the results would well repay the effort. I want to emphasize the point that blood chemistry is vastly more important and gives, beyond comparison, far more valuable results than urinalyses, but I do not wish to convey the impression that one should be used to the exclusion of the other, but rather that the examination of the blood and urine should go hand in hand for the purpose of obtaining the greatest amount of clinical data possible.

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SUBCUTANEOUS EMPHYSEMA DUE TO RUPTURED LARYNX IN AN UNTREATED CASE OF DIPHTHERIA.

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The case herewith reported is of interest because it presents at the same time a condition of rarity and exhibits the ravages of the disease when it is allowed to ge untreated or when anti-toxine has been delayed too long.

Any plea at this day and date for the early recognition of diphtheria and anti-toxine administration therein, seems superfluous, failure to supply the proper treatment in cases of this sort can be laid to only two things—first: the failure of the patient to present himself to a physician or neglect on the part of the physician.

Patient M: Aged eleven years, was admitted to the Herman Kieffer Hospital with a history of having had diphtheria for a period of four days during which time no anti-toxine had been given. The previous medical history is not remarkable. A consideration of the complete physical examination will not be gone into in this paper as it was not remarkable and can shed no light upon the subject at hand. Upon examina-

tion of the throat, one was immediately struck by the very foul odor that greeted ones nostrils, inspection revealed a pharynx completely filled with what was apparently a greenish gangrenous mass, one being struck by the fact that the mass must be more than a membrane and that it surely must be a gangrenous condition. Welsh and Shamberg in their book on contagious diseases make the statement that in their opinion they have never seen in diphtheria what they would care to call a gangrenous pharynx, but in the face of what occurred in this case I felt justified in an opinion that a gangrene did exist.

Upon admission to the hospital, the patient was given a massive dose of anti-toxine intramuscularly. The temperature was never over one hundred two degrees (102° F.) and pulse rate never very rapid nor was it of such a rate to make one believe that a vagus paralysis existed. The breathing was not difficult there being no evidence of a laryngial involvement up to the end of the first 24 hours in the hospital. At the end of the first day this unusual condition appeared, upon going into the ward the intern noticed that the breathing was quite labored and that the patient was evidently in a condition of shock; there was what appeared to be air hunger and the cyanosis was marked. Upon further examination it was discovered that there existed a subcutaneous emphysema that involved the entire chest, arms and the neck up to the chin level, the face not being involved. Dyspnea became greater and at the end of thirty minutes tracheotomy was performed allowing the patient some relief but ten minutes later the patient was dead.

COMMENT.

We were here dealing undoubtedly with a rupture of the larynx due to some erosive process and I believe that process was a gangrenous one.

This case is interesting firstly, because of its rarity; secondly, because as was evident from its course following tracheotomy, that the rupture was even lower than a point able to be reached by the tube (and the incision was made particularly low) and thirdly—because as mentioned in the beginning of the text we have here a condition that is due to the ravages of diphtheria when the anti-toxine is omitted for a long period and lastly—because of the presence of a gangrenous pharynx and larynx which must be exceedingly rare.

306 Kresge Bldg.

TWO UNUSUAL CASES OF ENCEPHALITIS EPIDEMICA. CASE REPORTS.

DR. STUART WILSON AND DR. FRANK WEISER.
DETROIT, MICH.

We wish to present two cases of Encephalitis Epidemica that have come under the diagnostic service of Dr. Stuart Wilson at Grace Hospital during the past year. These cases showed certain unusual and misleading onset symptoms, which made diagnosis difficult.

The two cases vary widely in mode of onset and clinical course, yet they offer the opportunity for speculation over the relationship of spinal fluid obtained at an early stage of the disease in the first case and at a later period in the second case.

The first patient offers an interesting diagnostic problem. He is an adult, aged 59.

Mr. W. H. was brought to the Hospital at 6 P. M., May 16th, 1920. The notes on admission are: "Patient is comatose, unable to rouse him, pulse is weak, irregular, rate above 100, respirations labored and 50 to the minute, urine contains 6 per cent of sugar.

The history as obtained at this time: On the day previous, Saturday, patient was feeling in perfect health and took a fifty mile auto trip. But in the evening on the way home was seized with very excruciating pain in back of neck, felt nauseated and vomited, felt better for a while, then started to vomit again, suddenly became weak and unconscious. Could be roused during night but deepened into coma Sunday morning. Involuntary urination started, a specimen Sunday A. M. showing a strong sugar reaction.

Examination at time of admission: Patient is a big, well nourished man in deep coma. Pupils are equal and react to light. No signs of cranial nerve involvement, no neck rigidity, no rash on skin, heart negative, blood pressure 140-80. Lungs negative except for large moist rales, abdomen negative except for distended bladder. Motor reflexes present, knee jerks exaggerated. Kernig and Brudzinski signs negative. Babinski negative. No acetone odor to breath, skin is moist. Temperature by axilla 102°, pulse arrythmic 104, respiration 50, labored. Catherterized specimen of urine showed 6 per cent sugar.

An impression diagnosis of Diabetic Coma was made and water given intravenously, subcutaneously and per rectum.

May 17th, the second day: Pulse is fuller, rate 80, still comatose. Patient resists effort to enter vein but otherwise shows no evidence of rousing from coma. Urine is sugar free, and blood is 0.1 per cent. Towards night patient very restless, begins to moan, and passes from a deep coma to one from which he can be roused.

Further history obtained from Mrs. H. at this time confirms the onset as described. Patient had been a strong, vigorous business man. His past history is devoid of interest except that he never had any increased thirst, no polyuria or itching of the skin. He has been a very heavy eater and rather constipated.

Our patient is evidently improving, an unusual occurrence in diabetic coma. The normal blood sugar, the rapid disappearance of sugar in the urine, the absence of an acetone odor to the breath, and absence of a ketonuria are all noteworthy. These facts, together with the negative

history of symptoms, makes diabetes very improbable.

May 18th, third day: Patient is very restless, rouses easily, moans as if in pain, speech is incoherent and thick. Pulse is good, volume 68, temperature 99.4°. Has control of bladder.

Examination reveals equal pupils but sluggish in reaction to light, slight ptosis of left lid, no strabismus, or nystagmus. Suggestion of drooping of left corner of mouth, tongue protrudes in mid-line, rigidity of neck, no muscle fibrillation observed, Kernig's sign is positive. Facial expression is one of apathy.

Lumbar puncture easily performed and a decided blood tinged fluid obtained. We are surprised at the presence of blood because there was no unusual trauma. Laboratory reports: Fluid, Wassermann negative, and bacteria free.

Blood count at this time 9,200 Leucocytes, 65 per cent Polys. Considerable relief from headache is obtained following spinal drainage.

The onset of severe vasilar headache, vomiting, coma, followed by cranial nerve involvement suggests a cerebral condition. A provisional diagnosis of Encephalitis Epidemica is made at this time. Patient sleeps considerably, but occasionally becomes restless and talks irrationally.

May 19th, fourth day. Ptosis is more marked, facial paralysis quite evident, left pupil dilated and very sluggish to light, no strabismus, diplopia, or nystagmus; neck rigidity and Kernig's positive. Slept considerably during the day, occasionally restless and wandering in mind. Does not recognize where he is.

Spinal puncture reveals fluid blood tinged, but less than previous. 60 cc. is drawn. Fluid is Wassermann negative, and bacteria free.

May 20th, fifth day. Patient passed a good night and seems brighter, asked intelligent questions. Temperature normal, pulse 60, and respirations 20. Neurological findings the same.

May 21st, sixth day. Patient flighty, is not clear in mind. Complains of headache. Neurological findings the same. Spinal puncture, 30 cc. obtained, fluid clear, yellow in color. Wassermann negative, cells 70 r. b. c. per cmm., 250 mononuclear leucocytes per cmm., globulin positive, Nonne test.

During the next week the patient is found to steadily improve. Mind remains clear, pupils become equal, and the facial involvement becomes less evident. The spinal fluid obtained on the twelfth day is clear golden yellow, 200 leucocytes per cmm., globulin positive.

During the remainder of his Hospital stay he was up and around with no return of his symptoms. Daily urine examination failed to show sugar.

Patient was discharged from Hospital June 12th, with apparently a complete recovery.

DISCUSSION.

The sudden onset of coma with a glycosuria was rather misleading in this patient.

Nausea, vomiting, coma, followed by cranial nerve involvement and lethargy certainly shows cerebral disease. The spinal fluid shows an inflammatory reaction and is Wassermann negative. Upon this picture our diagnosis of encephalitis epidemica is based. The glycosuria we cannot explain. The blood in the spinal fluid we thought at first to be traumatic, but now believe it to be part of the pathological picture. This first puncture was done on the third day of the disease, this specimen, as you remember, was distinctly bloody, later on the fluid was clear yellow. We are inclined to believe that if the first spinal puncture had been performed on the eighth day of the disease, a clear yellow fluid would have been obtained and the initial bloody fluid been unknown. This opinion is suggested by an experience with another patient.

This little girl, aged 9, exhibits another type of onset of Encephalitis Epidemica.

May 13th, she fell from a stool about two feet high, striking her head upon the floor, vomiting and headache follow. This headache continued and dizziness appeared. Patient remained more or less in bed for a week complaining of headache and dizziness. The night of May 21st she was found lying in bed in a stupor with a staring look to the eyes and hands held out rigid. (Mother's description). During the night mother describes a series of clonic convulsions, lasting about one hour. Patient was admitted to Surgical Service on May 22nd with diagnosis of fracture of skull.

The notes on admission are: "Poorly nourished child, conscious, temperature 102, pulse 86, respiration 22, complains of headache." Patient had several slight convulsions followed by twitching of eyes, limbs and body.

May 23rd: Sleeps most of the time but rouses easily; has involuntary urination and defecation. X-ray of skull negative for fracture. Urine negative, while cells 10,120, polys. 79 per cent.

May 28th: Patient first seen by Medical Service. Notes at this time are: "Ill nourished child, lying in opisthotomus, unresponsive to questions and disinterested in her surroundings. Ptosis of left lid, strabismus both eyes, pupils equal but sluggish to light. No nystagmus. Marked neck rigidity; positive Kernig. Impression diagnosis: Tuberculous Meningitis. Lumbar puncture performed during the day showed clear yellow fluid containing 250 mononuclear leucocytes per ccm., positive globulin and negative Wassermann. The evening of the 28th notes are: "Patient sleeps but rouses easily. Falls off to sleep while being talked to." Reviewing the meager history at our disposal, we have the following: Past and family history negative. Fall from a stool followed by vomiting and headache. Headache and dizziness continued. One week later convulsions and muscle twitchings started, followed by sleepiness. Just when the cranial nerve involvement became manifest the record does not show but apparently it accompanied the lethargy.

We first saw the patient 15 days after the fall and seven days after the onset of the convulsions.

We feel that the fall was an incident of no importance in this picture. The disease probably started May 21st with convulsions, passing from this irritative stage of three or four days duration to one of cranial nerve involvement. A week after onset the picture was one of extensive cerebral involvement including 3rd and 7th nerves, opisthotonus, involuntary sphincters, and lethargy. A temperature of about 101° persisted for two weeks, accompanied by a relatively slow pulse.

A fundus examination was negative, showing no optic neuritis or choked disc.

Several lumbar punctures were done, the first one on the seventh day of the disease, all showing a clear yellowish tinged fluid with increased cells and globulin.

The patient was discharged from the hospital June 19th with the strabismus as the only residual symptom.

DISCUSSION.

The diseases we considered in this case were: 1. Encephalitis Epidemica; 2. Tuberculous Meningitis; 3. Brain Abscess.

The course of the disease, ending in recovery, rules out meningitis. Brain abscess was a strong probability except for the double strabimus, the negative fundi and the absence of a leucocytosis. The spinal fluid findings were those of an inflammatory process involving the meninges. We feel that the diagnosis of encephalitis epidemica more nearly describes the condition. The spinal fluid was peculiar in its yellowish tinge and we cannot help but wonder from our experience with the other case, whether there was not a time in the early stage of this patient when the fluid would have been bloody.

A CASE OF INTRA-UTERINE FRACTURES. (Osteogenesis Imperfecta)

MAX BURNELL, M.D.
FLINT, MICH.

Baby Ruth A, presenting as a right sacrum anterior, was delivered spontaneously after 9 hours of an uneventful labor. Routine examination revealed the fontanels and sutures to be wide open. The anterior fontanel was three inches in diameter and extended anteriorly to within 2 cm. of the bridge of the nose. The cranial bones were apparently as thin as parchment, making the head soft and boggy to palpation. There was no enlargement of the head, however, the measurements being: Suboccipital bregmatic 10 cm., biparietal 9½ cm., occiptal frontal 11 cm., and occiptal mental 13¼ cm. The weight at birth was 3044 gms. and the baby was 48½ cm. in length. The skin over the trunk and extremities was soft and delicate. Nose and ears were negative. The sclera was of the normal white color there being no suggestion of a bluish tinge. Tongue normal, face small, slightly wrinkled giving the baby a peculiar elfish appearance. Thorax apparently normal. Abdomen proturberant with moderate tympany throughout, genital and anal regions negative.

The right leg was 1 cm. shorter than the left and the femur of that side was found to be bowed with what was apparently an exostosis in the middle third. Examination of the left femur demonstrated a similar nodule in the middle third but the bowing was not as marked. The epiphyseal endings of the long bones of the lower extremities were not united. Examination of the forearms showed that each radius in the middle third contained similar nodules. Although the examination did not require much manipulation, the right femur was broken at this time showing the extreme brittleness of the bones.

Family History.—A detailed history was obtained from the mother. There was no family history of Brights Disease, tuberculosis, cancer, insanity or any suggestion of any similar condition as presented by the baby in either the maternal or paternal branches of the family. The mother was a primipara age 25; white; an American. She gave no history of rickets, scarlet fever, diphtheria, rheumatism, syphilis, nor any symptoms pointing toward cardiac, pulmonary or renal complications. She had always lived an athletic outdoor life. Her only operation consisted of an Alexander suspension for retroversion of the uterus.

There was no change in the general health with the onset of pregnancy. Detailed questions were asked concerning the diet during the prenatal period. There was no particular fondness for certain foods and a well rounded diet was maintained throughout the pregnancy. During the 4th month of gestation the patient was required to travel by rail 1800 miles. The trip was apparently uneventful. The fetal movements were never excessive at any time.

Mr. A. was of the athletic type, insisting that he had never been ill. Mother's father's and the baby's Wassermann's were all negative.

Differential Diagnosis—This intra uterine pathology of the bones led us to make a provisional diagnosis of osteogenesis imperfecta, chrondrodystrophy, congenital syphilis or congenital rick- etc. As the radiographic shadows of these conditions are quite different and distinct, X-ray plates were taken within 4 hours after delivery.

The report of roentgenologist was as follows: "All of the bones show a marked increased radiability denoting loss in lime salt contents. The cortex of the long bones is markedly thin. There

are numerous fractures, some of which are old as evidenced by the bony callus surrounding the fracture points.

Both clavicles are fractured in the middle third with a resulting sharp angulation. Both radii show fractures in the middle third. The fracture of the left radius has an abundant callus. The fracture of the right radius however is a recent one.

The right femur shows a fracture through the surgical neck with no evidence of new bone formation. There is another fracture in the middle third of the right femur which has healed with abundant callus. In the upper and lower third of the right leg, two fracture lines are observed, but it is difficult to say whether these are fractures of the tibia or fibula, as there are no anteriorposterior plates available. There is a marked anteriorposterior bowing of the leg in the middle third but no apparent fracture at this point. The left femur shows a fracture in the middle third with abundant bony callus. The lower leg shows a transverse fracture in the middle third with bowing. This appears to be in the tibia. The skull shows generalized thinning of the cranial bones, particularly at the vertex. From the presence of new bone formation, it is evident that most of the fractures described occurred in utero.

COMMENT.

The distinctive characteristics of the roentgen findings in this case are those of a pathological process not limited to any particular part but involving the whole bony framework. The process is characterized by, (1) A loss of lime salts, producing a fragile condition of the bones, which has resulted in numerous fractures. (2) The absence of changes in the epiphysis. (3) The ability to produce new bone and the absence of retardation in the diaphyseal growth. As a result the long bones show no shortening. These findings are characteristic of osteogenesis imperfecta.

Radiographically, osteo-genesis imperfecta must be differentiated from achondroplasia, rickets and syphilis. From the former, it is distinguished by the absence of shortening of the long bones or epiphyseal changes. In achondroplasia there is a squaring and widening of the epiphyseal end. From rickets and syphilis, it is differentiated by the fact that there are no changes in the epiphysis."

OSTEOGENESIS IMPERFECTA.

Vrolik in 1849 first described the condition of multiple intra uterine fractures giving it the name "osteogenesis imperfecta." It was left to Stilling in Von Recklinghausen's clinic to first describe the pathology accurately and to him must be given the credit of making osteogenesis imperfecta an entity. Lobstein, in 1885, described a condition of fragility of the bones occurring in infants *after* birth giving it the name "osteopsarthyrosis." He contended that this condition was distinct from the congenital form referred to as osteogenesis imperfecta. However, Nathan, Sumita, & Looser after careful pathological and clinical studies have declared the conditions to be identical. Schwartz and Bass recognize two types of osteogenesis imperfecta (1) cases occurring during intra-uterine life, (2) cases which appear to be apparently normal at birth and early or late in childhood, suddenly develop a tendency to multiple fractures.

ETIOLOGY.

No definite etiology has been associated with this rare affection. Holt says no especial disease can be held responsible, that osteogenesis imperfecta is at times found in certain families associated with a peculiar blue coloring of the sclerotics and in such cases is distinctly hereditary. Griffiths has commented upon this hereditary tendency. Syphilis may not be considered an etiological factor. Deficient thyroid activity had been associated with this condition but Sumita after a careful study states that there is no association between the two conditions. Schwartz and Bass contend that the condition is a true fetal disease citing a case of twins, one with marked osteogenesis imperfecta; the other, perfectly normal.

PATHOLOGY.

The radiographic findings are characteristic. The shadow formation is deficient as all the bones have increased permeability to the X-ray. In length the growth of bone is normal, shortening coming as a result of fractures. The fractures are multiple, mostly intraperiosteal with excessive callus formation. The bones may be soft and pliable but the majority are extremely brittle. The osteoblasts are deficient not only in numbers but in activity the cortex is extremely thin and the diathesis often nothing more than a firm membranous periosteum filled with a red-brown mass intersected by fine bony spicules. The substantia spongiosa is made up of wide meshes, the structural markings being absent. Hess, contrary to other observers, describes an excessive callus formation follow-

ing fracture also stating that the epiphyseal cartilages and their centers of ossification are larger than normal and the epiphyseal lines are straight.

As in the long bones, the ones of the skull are entirely devoid of calcification. The base of the skull however shows some ossification but is thin and friable.

PROGNOSIS.

The majority of infants with osteogenesis imperfecta are still-born or die within a few days after birth. The extreme friability of the bones, with the tendency towards multiple fractures and resultant shortenings, leaves those that survive crippled for life. The slightest trauma may cause fracture. Our case had one ulna, tibia and two ribs fractured as a result of carrying the baby from the nursery to the mother's room. The deformities seen in this condition are often as marked as in cases of chondrodystrophy. Some cases show marked improvement, the bones becoming less friable with the growth of the infant and the tendency towards multiple fractures greatly reduced. Occasionally these individuals live active, energetic lives. This is not the rule.

The prognosis is just as grave in the cases which at birth are apparently normal and then suddenly develop a tendency towards multiple fractures.

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Editorials

HISTORY OF THE CHIROPRACTIC BILL.

The membership of the State Medical Society and its many friends successfully defeated the chiropractic bill in the legislature just closed, after it had passed both houses with practically no opposition either in the Health Committees or upon the floor of either the House or Senate.

Briefly, the bill introduced and passed without amendment (until recalled) had in the main the following provisions:

Section 1. Provision is made for a board composed of five chiropractors who have been practicing chiropractic in Michigan during the past three years.

Section 2. Provision is made for the licensing of chiropractors who have matriculated upon the basis of a high school diploma or equivalent credential; graduates from a chiropractic college having a course of three years of six months each year and passing a board examination upon chiropractic subjects which does not include bacteriology, surgery or obstetrics. (Note the absence of the knowledge of the subjects in the treatment and cure of "anatomic disrelation.") Provision is made, also, in this section for the registration of all chiropractors who had been in (illegal) practice in the State during the past two years.

Section 5. Chiropractic is defined to be the science that teaches that disease results from anatomic dis-relation and teaches the art of restoring anatomic relation by a process of adjusting by the use of the hand, and is declared not to be the practice of medicine, surgery, mid-wifery, or osteopathy: Provided, It shall be unlawful for any person registered under the provisions of this act to use or prescribe any drugs or medicines in the practice of said system or method, and practitioners shall use the prefix "Chiropractic practitioner."

Section 7. Any person who shall practice or attempt to practice, or use the science or system of chiropractic in treating diseases of the human body, * * * * * * * * * * shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than fifty dollars nor more than five hundred dollars, or be imprisoned in the county jail not less than thirty days nor more than one year, or both * * * * * * * * * *

Section 9. All acts or parts of acts in conflict with this act are hereby repealed.

It will be noted that under Section 5, as quoted, the definition of chiropractic, i. e., "anatomic disrelation," covers the fields of surgery, obstetrics and gynecology, and is further declared "not to be the practice of medicine, surgery, midwifery and osteopathy." Registered medical men are not exempted from the provisions of the bill, neither are osteopaths. *Do the medical men realize how close a call they had of being legislated out of the profession of medicine?*

The stupendous outrage committed upon the citizens of Michigan, if this bill had passed can hardly be estimated. In illustration and emphasis a very few of the more common 'anatomic disrelations" are cited: hand and arm presentations, extra-uterine and tubal pregnancy, strangulated hernia, tumors, including cancer, and hundreds of other "anatomic disrelations," including fractures, dislocations.

Are any of the above (or others) to be cured or remedied through a pretended adjustment

of a vertebra? Also, involved in the bill is the absolute destruction of health laws and quarantine. The Industrial Accident Board would cease to function under the definition as above, from the fact that no evidence of injury would be possible, except through the testimony of Chiropractors as surgeons would be disfranchised.

The amount and quality of gray matter involved in a legislator seems impossible of computation even by the metric system. The only excuse offered by those active in the promotion of the bill was that they had not read it.

The chiropractic bill passed the Senate, April 21st, without amendment, by a vote of 22 yeas and 4 nays, the following Senators voting nay: Bolt, Johnson, McArthur, McCrae. Upon motion of Senator Johnson, the bill was reconsidered, April 25th and 26th. In the meantime the members of the Senate had received some three thousand telegrams protesting against the passage of the bill, or its amendments in any form. Its promoters, therefore, in order to meet the situation offered the following amendment to Section 5: "Strike out Section 5 of said bill and insert in lieu thereof the following: Section 5. It shall be unlawful for any person registered under the provisions of this act to use or prescribe any drugs or medicines, or to practice surgery, midwifery or osteopathy in the practice of said system or method, and practitioners shall use the prefix "Chiropractic practitioner." This amendment was carried. Senator Johnson then offered the following amendment: "Section 5. After the word "midwifery" insert "or treat infectious or contagious diseases." This amendment was carried by votes of 21 yeas to 7 nays. The Senators voting against the amendment were: Baker, Browers, Bryant, Davis, Riopelle, Vandenboom and Wood. Senator Brower then announced that the amendments adopted had effectually "killed" the bill, and upon motion that the bill be passed the vote stood yeas 1, nays 25. It has been stated by active supporters of the bill in the legislature that it had the endorsement of members of the State Society in prominent official positions. It is hardly believable that any member of the society has fallen so low in the realization of his duty to his profession, and to the public welfare, whereby he could be induced to endorse and support such iniquitous and destructive legislation.

Subsequent to the defeat of the bill, a desperate attempt was made to resuscitate it, and for that purpose Dr. Angus McLean, President of the State Medical Society, and Dr. J. B. Kennedy, Chairman of the Wayne County Legislative Committee, were summoned to Lansing, and it was suggested that they rewrite the bill in any form, and with such amendments and restrictions as were thought necessary, in order that the chiropractors might be able to have a board and state recognition. This suggestion was absolutely and finally rejected, and the promoters of the bill were informed that under no circumstances would the medical men assent to a chiropractic board in any form or under any conditions. It was, also, suggested that the bill in the House (which had already passed the Senate) amending the medical act in its penal clause, and which had been defeated out of spite in revenge for the defeat of the chiropractic bill, would be revived and passed, provided asent was given to the revival of the chiropractic bill in the Senate. This overture was absolutely rejected also. The Committee on Legislation involved in the defeat of the bill and those medical men throughout the State who so effectively influenced the senators through telegrams and personal interviews, deserve the very highest praise for their activities, and it was demonstrated that the medical men in the state have the power to influence legislation when working effectively and as a unit.

Too much credit for the final defeat of the chiropractic bill can not be given Senator O. G. Johnson (M.D.), who in spite of the organized effort behind the bill, was successful in defeating a measure which had primarily passed the Senate by a vote of 25 to 4. A great deal of the time he was the only senator in opposition. His attitude at all stages of the bill was a "fight to the finish and no surrender." Seldom in the Senate has a bill which has passed both houses with a minimum of opposition been recalled and overwhelmingly defeated.

THERAPEUTIC ADJUNCTS.

We are just in receipt of a letter from one of our members expressing regret, after noting the subjects for discussion at our annual meeting, that no one has thought to bring up for discussion electro and mechano therapeutics. The criticism is pertinent and timely. The Doctor has had an extensive and valuable military experience in reconstructive and rehabilitation surgery. He has observed the at times marvelous results of electro and mechano therapy. He likewise, is aware that many doctors are entirely unfamiliar with these forms and methods of treatment. Naturally he deplores this fact and is eager to see these methods brought to the attention of the profession. In all of which we are in hearty accord and are taking his letter as the subject of this editorial.

Those who attended the meeting of the Michigan Section of the College of Surgeons, held in Detroit this past month, were impressed with the illustrated discussions presented by Drs. Mock and Kanavel of Chicago. The results they accomplished in corrective, reconstructive and rehabilatation surgery were indeed inspiring. On numerous occasions we have remarked that we as a profession only partly completed our work in our cases where injuries had been sustained as well as when dealing with pathological conditions. The healing of the incision or the wound does not and should not imply the dismissal of the patient. The suture of a tendon, nerve or the reduction of fracture does not imply completed treatment. The loss of anatomical structures does not preclude functional destruction of a member or the individual. Neither are we justified in consigning such individuals to the human scrap pile or permit them to be the pensioners or wards of industry or society. Present day surgery and electro-mechano therapeutics will reclaim and rehabilitate these individuals if we but apply and make use of that which can be beneficial.

Massage has definite indications. Electro therapeutics in the form of the galvanic and faradic currents, the Alpine light, ultra-violet rays and Kromayer light will accomplish results that are unbelievable to the inexperienced. Mechano-therapy properly selected and persistently employed will restore function where hope has often been abandoned. Occupational therapy will frequently change the mentality and personality of the afflicted individual. We might devote an entire issue in discussing the indications, use and results obtainable by any one of these therapeutic agents or methods. Such is not our purpose; we simply mention them in passing because they are proven adjuncts.

The profession must desist from doing half work. We must complete our cases. Our failure to do so in the past is what has called into existence the several cults. Unless the future witnesses more completed work we need not rant about those who join these cult organizations. We solicit articles upon these therapeutic adjuncts and urge that our members institute these methods of treatment.

THE CHIROPRACTIC DEFEAT.

How our county societies rallied and exerted their influence upon the Senators when the emergency call for action was sent out and how that expression of activity occasioned the defeat of a most pernicious bill that would have recognized chiropractic practitioners is now common knowledge. We do not propose to recite the details. We do, however, want to record appreciation of the response that was forthcoming and to ascribe credit to Dr. McLean and the county officers for their splendid work.

The organized activity that was evidenced should serve as a memorable illustration of what the profession may accomplish. It demonstrates what we have frequently claimed. It means that we must continue to keep in touch with our legislative representations and keep them enlightened upon medical and health topics. This cult, it is said, spent a large sum of money. They are defeated but not yet wiped out. The next legislature will witness the introduction of a similar bill. It is right now that we should institute our educational campaign with 1923 in view. A campaign that will not only defeat the chiropractors but which

will also make it impossible for socialized medicine propagandists to secure the passage of favorable legislation. Preach the subject at every place and on every occasion that an opportunity presents.

We sympathize with Iowa and Missouri. Here's hoping that their experience may open legislative eyes and bring about an appeal in 1923.

THE MEDICAL PROFESSION AND THE PUBLIC.

Dr. J. B. Kennedy.
Chairman Legislative and Educational Committee of the Wayne County Medical Society.

When the Wayne County Medical Society, early last December, decided that the profession ought to get in closer touch with the public, we had a vague idea that we were "in bad" popularly speaking, but we had no idea how great was the ignorance of the outside world regarding the real aims and ambitions of the profession.

We did not know how little was understood about the efforts of the profession to perfect itself in the science and art of medicine and surgery, its desires to co-operate with the laity in the fighting of disease, or its real interest in social betterment. We knew there was talk of "State Medicine" and realized, more from intuition than actual information, that ideas dangerous to the profession were fast becoming popular.

It was not until the Legislative and Educational Committee, appointed by the Wayne County Society got to work among newspapermen and public officials that we realized how serious the feeling was becoming against doctors in general.

This may sound frank, but this is a time for frankness. In these days of open covenants, the profession or class which doesn't lay its cards on the table face up fares badly in the onward march of progress.

We soon found, in the course of our investigations, that there was really something serious likely to materialize from the idea in certain quarters that there was such a monster as the "doctor's trust." We found that workingmen were actually demanding social health insurance. More because the phrase sounded good than anything they knew about the actual working of the system. But health insurance they were demanding.

We found that the more intelligent classes, political leaders, newspapermen and others interested in public affairs, had come to consider us a selfish, narrow class which thought more of the financial aspects of an appendectomy than we did of its clinical significance. We heard, with some misgiving, talk of state regulation of fees.

But when a bill regulating fees for surgical operations, fathered by Rep. Floyd A. Rowe, of Hillsdale, actually did make its appearance in Lansing, we were alarmed. And when it was introduced in the House and drew the first spontaneous applause accorded any bill during the session we knew that there was in the general epidemic of unrest a few germs that fed only on the medical profession.

That bill still sleeps in committee. I say sleeps. For although the session is ended and the more proper expression, ordinarily, would be to say it is killed, there is another session of the Legislature coming and it is only two years away. And there are more sessions to come in the years of the future.

We found many of the lawmakers totally ignorant of the significance of many measures on which they were called to vote. Some of them voted on important medical legislation and admitted later that they had not even read the bills. They had simply been told, by friends, or political leaders that the legislation was "all right" or a "good thing."

Which is not a criticism of the legislator. We have found scores of doctors as ignorant along these lines as the layman. When a bill is introduced entitled "An act to regulate the Practice of Chiropractic," and a casual reading of it brings the conviction that the measure is something to restrict Chiropractors, the lawmaker is likely to vote for it even though some dear relative of his has been killed by a Chiropractor and he thinks he has been getting revenge in curbing the operations of this group of fakirs.

Just this situation arose at the last session of the legislature. It was not until this committee, through its publicity representative, informed the legislators of the true facts, that many of them knew what they had been voting for. It was not until then that they learned that the bill was really backed by the Chiropractors and that this measure, had it become a law, would have given to this dangerous cult not only legal status in Michigan which they do not now enjoy, but the actual right to practice medicine and surgery.

In the old days the way to have protected ourselves at Lansing would have been to bargain with the professional lobbyist. To-day, the most powerful force for public good lies in education and publicity. If we are right we can scarcely lose, in the long run, if the public knows all sides of any question affecting the welfare of the people. If we are wrong, we can only hope to lose. It has been the feeling of the Wayne county members of the profession that we have had the right side of the argument in many of the proposed pieces of legislation affecting the profession. We have convinced some of the most influential members of the newspaper profession and some of the most powerful public officials that some of the legislation offered at the recent session of the Legislature was positively vicious in its potential harm to society. It was because we had the right side in the Chiropractor fight that we were able to convince Governor Groesbeck of the viciousness of the Chiropractor bill after he had lent his support to the measure under the impression it was harmless and the bill had passed both the House and Senate almost unanimously. The manner in which that measure was recalled, reconsidered and killed after it was on the way to the Governor's office for signature was one of the marvels of the session. Not in years, if ever, has such a political feat been accomplished.

That coup was accomplished without the aid of a single politician, lobbyist or fixer. It was accomplished in spite of the determined opposition of the Senate organization led by Senator Burney E. Brower, a Jackson lawyer who drew the bill for the Chiropractors and fought for it all the way in Lansing. It was brought about because the medical profession throughout Michigan was organized almost overnight during the closing hours of the session. Because ours was a campaign of publicity instead of lobbying, because we had the best of the argument, we were able to talk frankly and openly to newspapermen and legislators. We had nothing to hide. The Chiropractors had everything to conceal. We won.

There were other matters of legislation up before this committee for consideration during its four months of continuous activity. There was consideration of the proposed health insurance bill, legislation for the purpose of establishing community hospitals, legislation affecting the Detroit College of Medicine and other measures, details with which I will not bore you in this article. But suffice it to say that questions of this character are coming up more and more in the future. We are going to have to consider innumerable pieces of legislation in the future relating to our profession. In addition there is taking place rapid changes in the social fabric which must bring about new adjustments between ourselves and the laity. It is to make intelligent readjustment along with the rest of society that the profession should maintain a bureau whose sole duty it is to keep in touch with current events, keep the public informed of our doings and keep us informed of the goings-on about us.

Such a bureau should keep in close touch with newspapers and public officials. It should be in a position to correct wrong impressions of us held by the press. It should always know the attitude of prospective legislators on matters affecting not only the profession but public health.

Co-related with the publicity features of this bureau should be a plan for reaching the people through direct appeal to the public from individual members of the profession. Popular lectures on medical subjects should be given by eminent members of the profession at every opportunity. The Rev. S. S. Marquis, late head of the Sociological department of the Ford Motor Co., at a recent public meeting of the American College of Surgeons, suggested that

all churches be turned over to the profession once a month for discussion of the relation of the profession to the public and other subjects on medicine and health. If this opportunity is given it should be seized by the doctors. Clubs, churches and schools should be informed that they will be furnished with speakers whenever desired.

I do not mean to say that the bad standing the profession suffers in certain quarters is entirely due to ignorance on the part of the public. I realize that the profession itself, or at least certain members of it are to blame for some of these impressions. The profession is not wholly without sin in many of its relations to the public. But I believe, that with proper exchange of ideas between the public and the profession, the profession is going to get as many benefits as the public. I know that we are going to find things out that will make us mend some of our ways. But we are at least going to have the satisfaction of knowing that the straightening out of the professional kinks comes spontaneously from within our ranks rather than from unintelligent meddling from without.

Note: A full report of the activities of the Educational and Legislative Committee of the Wayne County Medical Society may be had by writing to Dr. J. B. Kennedy, Chairman, 410 Washington Arcade, Detroit, Mich.

TOOTING OUR HORN.

The———session of the American Medical Association will convene in Boston during the week of June 5th. In former years it has been customary for the churches in the city where the convention is held to invite leading members to address their congregations at the Sunday services preceding the annual meeting week. These invitations have always been accepted and the subjects discussed by our doctors have usually dealt with Public Health, Preventative Medicine, Infant Welfare, etc. All of which we make no criticism.

This year, at the Boston meeting, the churches of that city have extended a similar invitation which has been accepted. The committee that is arranging for speakers to fill these pulpits have selected as the subject to be presented—"The Achievements of the Medical Profession." We commend most highly the committee's wisdom and foresight. It is a most fitting text for that Sunday's series of meetings.

Some ultra-conservatives may exclaim that it will be a tooting of our own horns. That is what it should and will be, but in a dignified and enlightening manner. This is the educational feature that must be imparted to the public. Too long have we kept the people in darkness as to what we are doing, and what is being wrought for their good. It is high time that we let our light out from under the bushel. May this be but the beginning of a dignified public tooting of our own horn that will extend across the entire country.

Editorial Comments

This issue went to press before the convening of our annual meeting in Bay City. The July issue will contain the complete transactions of that session. Look for it.

The Michigan Section of the American College of Surgeons held its first meeting in Detroit during two days in the last week in April. The mornings were devoted to hospital clinics which were well arranged for by Detroit surgeons and hospitals. Scientific sessions were held in the afternoon. On one evening an open meeting was held for the public. The session closed with a banquet. About 135 Fellows of the College were in attendance. The next session will be held in Grand Rapids.

The legislature authorized the appropriation that will enable our commission on Health to manufacture and distribute without cost vaccines and serums. Michigan thereby takes a forward step in preventative medicine that will witness a lowering of our death rate in diphtheria, and other contagious diseases. The details of the application of this measure will be announced when the commission adopts its rules governing the distribution of these serums.

The Chiropractors certainly planned far ahead when they secured the pre-election promise of our Governor to support their bill. We are not a little surprised that our Governor should have

become a party to the plans of this cult, knowing as he must, that such a measure would have been injurious to the public's welfare.

More and more do we hear comment and discussion of fees doctors and surgeons are receiving. The public as well as the patient concerned is giving vent to their opinions which are universally far from laudatory. Considerable of this adverse criticism is based upon ignorance of true facts and some because of failure to take into consideration the training requisite to establish the ability to command commensurate fees for services rendered. Again instances are set forth where the fees charged and demanded have been wholly unreasonable. We firmly believe and hold that proficient services merit full payment. However, we must ever be mindful of the patient's financial state when fixing our fees. Nothing will bring about socialized medicine or state medicine quicker than extortion for services. The poor of course do not pay, the very rich usually can meet a just obligation without embarrassment, the middle type of individuals, who by far are in majority, must be dealt with considerately. It is this middle class that will demand state medicine when the medical profession, nurses and hospitals place medical services beyond their financial reach. Shall we not be careful when fixing our fees for services to this class of patients?

We are proud of our advertisers. They are a high type of business firms. You can deal with them with every confidence in their integrity. May we not assure them of your preference for them and bespeak your patronage to them?

There have been times when we have been tempted to keep a diary for recording our experiences in the problems that come to a secretary and editor and to publish each month's record. The purpose would not be to set forth that which we are doing but rather to reveal the incidents that arise, opinions that are expressed, the comments made by both doctors and lay individuals, the sentiments that exist—oh well, everything that concerns the profession and its relationship to the public and which comes to our desk and attention thereby creating a definite viewpoint. To do so, we have thought, would reveal as well as create a change in sentiment and action on the part of our members in their relation to the people of their immediate community as well as to their fellow members. We dislike to be forever preaching and warning but we would be derelict in our duty did we not persistently continue to impart suggestions and advance advice as to policies and action. Our suggestions and recommendations are not based upon personal opinions. They formulate themselves from that which we see, hear, read and encounter while acting in an official capacity. Many times our personal attitude would be at variance with our editorial viewpoint did we seek our personal advancement. That which we say and write is based solely on our knowledge of affairs in general and a reflection upon what is best for the profession as a whole and our organization collectively and not individually. It is this viewpoint that we strive for and in attaining it we must necesarily trespass upon individuals and incur their antagonism. We regret being compelled to do so but our organization's welfare is more important than any single individual.

When will reputable physicians and surgeons cease erecting camouflages and be frank and open? Why perpetuate mystery or magnify incidents? We heard it twenty years ago and still hear it to-day: "Your tonsils were so diseased and rotten I had to take stitches to stop the bleeding," "The operation is very delicate on your sinuses because in doing it I am working within a sixteenth of an inch from your brain," "Yours was the worst case of appendicitis I ever encountered." We might continue ad nauseam. Of course there are patients who like to think they were the exception as well as those who magnify, but the suggestion all too frequently emanates from the doctor. Why not be honest and cut out all such rot. When a patient tells that Dr. Blank told them such a tale that doctors opinion of Dr. Blank immediately becomes lowered. You can be sympathetic and attentive to your patients without handing out or rubbing in putrid salve of the above brand.

Laws in Ohio, New Jersey, Pennsylvania and in several other states set forth the fees that may be collected by doctors for their services in industrial compensation cases. We are informed that they were enacted because physicians persisted in charging exhorbitant and at times extortionate fees for services. Such a bill was introduced in our state but was never reported out by the committee. A discussion and consideration of this subject should be engaged in at our county meetings and at our State meeting in 1922.

A recent number of the Journal of the Indiana Medical Association contains a very sane article on the Chiropractors. In Indiana they announce that they will introduce into the next session of

the State Legislature a bill giving them a special board of examiners.

In the first place there is no occasion for having a multiplicity of boards to pass on the requirements of those who desire to treat the sick. In the second place it would be distinctly class legislation to permit the Chiropractors to observe any less requirements for treating the sick than are required of any one else. In the third place no person should be permitted to treat the sick without proving to the satisfaction of the examining board that he or she possesses a knowledge of the fundamental branches which go to make up an intelligent conception of the nature and cause of disease. In the fourth place the public is entitled to protection from the work of the ignorant and incompetent. In the fifth place no Chiropractic can have any intelligent conception of the nature and cause of disease nor formulate a rational basis for treatment without having been adequately trained in anatomy, physiology, pathology, bacteriology, and physical diagnosis and such training can not be secured in the few weeks that are given to the training of Chiropractors. In the sixth place opinions may differ as to the kind of treatment to be instituted but there are certain fundamental facts pertaining to the body in health and disease which must be known by every one who attempts to treat disease. In the seventh place if education means anything at all in any profession or vocation, it means much in the practice of the healing art. In the eighth place if a bunch of uneducated, untrained, and wholly impractical men and women (like the chiropractors) are to be recognized legally, it is time for us to stop paying taxes to support research laboratories and educational institutions of every type.

One of the more important bills passed by the Legislature this past session was the one giving the Attorney General supervisory control over prosecuting attorneys in this State. Heretofore the Attorney General could do nothing except when requested by a judge or when authorized under special circumstances by the Governor. Under the new act in all criminal complaints (all violations of the Medical Act are misdemeanors), preliminary reports of the same must be filed with the Attorney General and also the final reports upon the deposition of the cases whether prosecuted or nolle prossed and the reasons when no action has been taken.

The reasons why quacks and chiropractors are permitted to practice in the State seemingly without let or hindrance is due to the neglect or refusal of the majority of prosecutors to fulfill the duties of the office to which they have been elected. Every possible method and excuse has been used in order to "stall" the case (promises of action when no action is taken or contemplated, frequent adjournments of trials, insistance upon complaints being sworn to by local physicians who furnished evidence of violations and other excuses without merit and too numerous to mention.)

While the Medical Board under the law can make complaints and investigate reported cases to a limited extent, it is not allowed (under the ruling of the Auditor General) to expend any of its funds in law enforcement.

It is to be hoped that under this new act the violations of the Medical Act will cease and the present violators will be speedily convicted and put out of business.

Correspondence

Cassopolis, Mich., April 20, 1921.

Editor The Journal:

Can you answer this question?

A patient of mine whom I have repeatedly advised to have an operation for appendicitis has, during my absence, visited another physician in another town for the purpose of confirming the diagnosis and is advised to have a number of X-ray plates taken, which was done. The diagnosis following was appendicitis and ulcer or ulcers of stomach and a gastro enterostomy advised in addition to the appendectomy. These pictures—six in all—were taken at the hospital and the patient paid the regular fee of $30—$5 each.

On my return the patient called and advised me what had been done. Not claiming to be expert in the interpretation of X-ray plates I advised the patient to get them and submit same to Dr. Crane at Kalamazoo, thinking perhaps this course would save the patient time and expense.

The hospital authorities positively refused to deliver the plates to patient, although it was promised they would be returned to the hospital again later in the day, and in spite of the fact that these authorities told me yesterday on the phone that patient could get same today on the way to the train.

Question—In whom does the ownership of these plates lie? What does the patient get for his $30? If a patient wants the advice of several physicians or surgeons before submitting to a serious operation does it, of necessity, mean that he must have a new set of plates taken by each

individual consulted; suffering silently the unnecessary expense and delay.

I have had plates shipped to me several times by Chicago hospitals and this is my first experience with this kind of a game.

Yours very truly

E. M. Cunningham.

Houghton, Mich., May 2, 1921.

Dr. F. C. Warnshuis,
Sec'y.-Editor, Mich. State Med. Society,
Grand Rapids, Mich.

Dear Doctor:—

Immediately on receipt of your telegram concerning the chiropractic bill, we of the Houghton County Medical Society got busy. We acted collectively and individually in sending telegrams to our Senators. To the chairman of our legislative committee, Dr. J. W. Moore, once a member of the House of Representatives, belongs a great deal of credit in bringing influence to bear on the Senate.

We were fortunate in securing the co-operation of the Lions Club of Calumet, the Rotary Clubs of Houghton and Hancock; the Dental Society; the Druggists and a score of other influential men of Houghton county. We feel that our Senators and Representatives on April 25, knew that Houghton county was still on the map, and that there were a few live wires left who had not departed when the mines closed. I am certain other counties did likewise.

Very truly yours,

A. D. Aldrich.

HINTS ON ANTRUM OF HIGHMORE AFFECTION.

(With Relation to Abscessed Roots.)

A few important diagnostic points elicited by the history and X-ray will readily differentiate and clinch the diagnosis between these two conditions which simulate each other and in the past have caused a confusion as to just the exact condition which presents symptoms.

Antrum of Highmore and its affection will first be considered:

Non-purulent Inflammation:

Cause—Closure of ostium maxillare with absorption of air causing congestion of blood vessels and exudate.

Symptoms—1. Pain, local or reflex to eye, head, teeth or ear. 2. Intermittent mucous discharge.

Diagnosis—1. Transillumination, and X-ray. 2. Exploration by puncture, or incision through naso-antral wall, and wash, aspirate or blow out cavity with compressed air.

Treatment—Cleanse and medicate, provide ventilation. Remove inferior turbinate by submucous resection thus avoiding a dry nose following operation by leaving a covering of mucous membrane.

Prognosis—Good under appropriate treatment, ventilation and cleansing most important. If due to dental origin, correct dental region and treat antrum.

Empyemia of Antrum:

Cause—May be either nasal or dental origin. If due to dental cause usually an abscess of root is present. When of nasal cause it may be a primary infection or secondary, to a non-purulent condition. It may be due to drainage into antrum from higher cavities.

Symptoms—1. May be slight or severe, local or reflex in eye, teeth or ear. 2. Discharge may be constant or intermittent, frequent in morning. 3 Patient occasionally is conscious of odor. 4. Depression is frequent, especially in the chronic cases.

Diagnosis—Transillumination is fairly reliable, X-ray clinches diagnosis.

Treatment—If due to dental origin, first correct dental condition and treat antrum as outlined. Surgically there are four methods: 1. Through the root of the tooth if due to abscessed root, only permissable mode of treatment, if due to dental cause, later close dental opening into antrum. Remove tooth and drill or bore an opening up through into antrum. This form of procedure is tedious and delays cure. 2. The canine fossa route is usually selected by the general surgeon, this is not thorough unless the operation is carried through the naso-antral wall. This latter procedure is known as the Caldwell-Luc operation. 3. Middle neatus route is proper for diagnosis, for treatment of acute cases and should be followed in chronic cases where it is often successful. Incise wall and blow or wash out cavity and medicate with Argyrol or Camenthol. 4. Inferior meatus route is procedure for the persistent, chronic cases. A submucous resection of inferior turbinate aids materially in the cleaning up of the condition. The after-treatment blow-out and medicate antrum.

Prognosis—Good if free persistent nasal drainage is provided in the chronic cases and ventilation and cleansing of cavity of antrum in the treatment of acute cases. It is unnecessary to state that the dental factor must be attended to, to remove underlying cause, if of dental origin.

I must acknowledge my teachers in writing this paper, Dr. A. H. Andrews of Chicago, whose

methods are unexcelled in the West and Dr. Hutchinson of New York City, whose operative results are splendid. If this paper enables my fellow practitioners to approach this problem with a desire to seek the cause of this condition, it will have served its purpose.

Harold F. Ohrt, M.D.,
Detroit, Mich.

State News Notes

COLLECTIONS.

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Rerefence any Bank in Battle Creek.

The annual report of Shurly Head and Chest Hospital, 62 Adams Avenue West, has just been completed. This interesting report gives a record of 2612 patients admitted and treated in the hospital during the year 1920 and a total number of 1843 operations performed. 1337 of the operations were performed by the staff of Shurly Hospital and 506 by outside physicians who are not on the attending staff. This shows that more than one-third of the work is done as an "open" hospital. In order to meet the growing demand for more operating room facilities, both in the hospital and in the city, a second operating room was elaborately equipped and opened to the public in September. The bed capacity was also increased by twenty-five beds, making a total capacity of 67 beds.

In addition to the Departments of Medicine and Surgery, Shurly Hospital provides a Department of Dental and Oral Surgery, through which 928 additional patients passed last year, of whom 537 were examined radiographically and complete diagnostic findings made of the condition of the oral cavity. There are also departments of the Eye and of the Ear, Nose and Throat. The hospital is equipped with clinical laboratory service and a splendid X-ray department especially devoted to the head and chest.

An interesting feature of last year's work was the arrangement with the United States Public Health Service whereby ex-service men became beneficiaries of the various departments of the hospital. These Federal patients afflicted with chest disease were referred to Shurly Hospital by the Government for observation, final diagnosis and, if necessary, operation. Thirty hospital beds were reserved for this purpose and were continuously occupied. 313 men were treated during the last three months of the year.

At the meeting of the physicians, dentists and pharmacists, held May 11, 1921, in the Detroit Board of Commerce, Doctor J. A. O'Reilly of Brooklyn gave a history of the attempts to introduce health insurance and other medical schisms in New York and New Jersey and advocated the formation of a political guild with membership from medical, dental and pharmaceutical societies. Upon motion of Doctor J. B. Kennedy a committee of one member of each of the above societies was appointed to take into consideration the establishing of such a guild. The members of this committee are Doctor Frank B. Walker. Doctor B. R. East (dentist), and Mr. Oscar Gorenflo. From the attitude of the meeting, it is not expected that this guild will materialize. However Dr. B. R. O'Reilly gave a most interesting and instructive lecture upon a subject essentially interesting to the several professions at the present time.

A bill establishing a Federal Department of Public Welfare, was introduced in both the House and Senate May 5, 1921. This bill was prepared by Brigadier-General Sawyer and Senator Kenyon. It abolishes the offices of Director of War Risk Insurance, Surgeon-General of the Public Health Service, Commissioner of Education, and the Board of Managers of the National Home for Disabled Volunteer Soldiers. The bill provides for a Secretary of Public Welfare, to be appointed by the President, and four distinct divisions, each under an Assistant Secretary of Public Welfare; (1) Education, (2) Public Welfare (different activities of the Government with respect to public health; (3) Social Service, and (4) Veteran Service (different activities of Government dealing in any way with American War Veterans.)

A joint meeting of the Legislative Committees of the Wayne County Medical Society, the Detroit Dental Society, and the Detroit Retail Druggists Association was held May 16, 1921, in the Medical Building. The following resolution was adopted:

Resolved—That this committee recommend to the various county, district and state societies representing the physicians, druggists and dentists that a triple alliance of the three professions be formed for educational purposes.

Doctor Frank B. Walker (Chairman)
Doctor B. R. East
Mr. Oscar Gorenflo.

On May 16, 1921, the Wayne County Medical Society instructed its delegates to support this resolution in the House of Delegates of the Michigan State Medical Society.

One of the bills, passed by the last Legislature, will enable counties to establish their own homes for the feeble-minded and to collect from the State the money which would be needed to care for the same number of inmates in state institutions. Judge Hulburt of Detroit and the Board of Supervisors of Wayne County urged the passage of this measure because the State institutions for the feeble-minded were so over crowded. It is believed that a movement to establish a Wayne County Home for such unfortunates will be begun soon.

The motorized laboratory of the Michigan Department of Health will be put into commission again this year. Much was accomplished in 1920. Last summer 131 resorts were visited; 45 per cent. of the water supplies were found unsafe; half of the resorts had no adequate method of garbage disposal, and 47 per cent. of the milk was unsatisfactory. The summer tourists need abundant supplies of good food, clean milk, pure water and sanitary surroundings. The Department of Health is endeavoring to give them just that.

The Battle Creek Chamber of Commerce gives yearly a testimonial banquet to one of the city's doers. The latter part of April Doctor J. H. Kellogg was the one chosen for this honor. The banquet was held in the Post Tavern and while there was no coffee, meat, condiment or after dinner smokes, the 300 guests are said to have enjoyed the "feast of reason." Doctor W. S. Shipp was one of the speakers. "Chew and Eschew" (Dr. Kellogg's doctrine.)

The Detroit Receiving Hospital has invited the medical profession to attend their clinics and ward walks with their visiting staff. Doctor B. C. Lockwood and Doctor W. D. Mayer give those on medicine, Doctor H. Reye on neurology, Doctor D. R. Clark on psychiatry, Doctor R. Parmeter on Surgery, Doctor F. C. Kidner on orthopedic surgery, Doctor G. Kamperman on gynecology, Doctor H. W. Paggemeyer on genito-urinary diseases, Doctors R. H. Pino and Schultz on larynology, and Doctor E. G. Martin on proctology.

When the proposed Detroit Municipal Hospital is completed, Detroit will have about 5 beds for every 1,000 population. The new hospital will be an "open" institution and any physician who is a reputable practitioner, will have the privileges of the hospital. In addition to caring for the indigent, the new hospital will take care of the middle class at a nominal cost. Thus a serious gap in the city' hospital facilities will be filled and the benefit will accrue to the citizens of moderate means.

Under the plea of charges for professional services, it is rumored that certain attorneys (members of the Legislature) have received large fees for drawing up bills. Subsequently they have introduced and have steered these bills through the Legislature. If these reports, so frequently heard during this session, have any substantial evidence to support them, then a Grand Jury in or near Lansing is indicated.

The Surgical Section of the Wayne County Medical Society entertained two out of town guests, April 25, 1921. Doctor Lower of Cleveland read a paper on "Diagnosis and Treatment of Tumors of the Urinary Bladder" which was illustrated by lantern slides. Doctor Thomas Horder of London, England, spoke on "Some of the Present Day Medical Problems in England." Preceding the meeting a subscription dinner was tendered Doctors Lower and Horder.

At the annual meeting of the Michigan Homeopathic Medical Society, May 12, 1921, Doctor F. B. McMullen of Detroit was elected President Doctor C. E. Beeman of Grand Rapids and Doctor C. B. Stoufflin of Ann Arbor were elected Vice-Presidents and Doctor M. A. Darling of Detroit was elected Secretary-Treasurer.

The new directory of the Detroit Athletic Club shows 112 physicians who are resident members and 2 physicians who are non-resident members. Doctor W. E. Keane and Doctor Edwin S. Sherrill are the only physicians who are charter members and Doctor J. W. Inches is the only physician who has been a director.

The members of the O. and O. Club were guests of Doctor Carl McClellan May 4, 1921, at the Detroit Golf Club. A number played golf in the afternoon. Dinner was served at 6:30 P. M., following which Doctor McClelland read a paper on "The Present Status of Sympathetic Ophthalmia," with the report of a case.

The Post-Graduate School of the Woman's Hospital of Detroit announced May 1, 1921 that Doctor H. B. Schmidt will give a series of twenty

lectures on medical conditions allied to obstetrics and gynecology, that this summer a course on surgical anatomy will be given, that Doctor Davis will repeat his lectures this fall, and that additional courses in obstetrics and gynecology will be given.

The Detroit Hospital Council invited the public to inspect the following hospitals on the afternoon of May 12, 1921 (Hospital Day)—Harper, Grace, Herman Kiefer, Providence, Highland Park, Children's Free, Dunbar, Ford, Michigan Mutual, St. Mary's, Delray Industrial, Samaritan, Receiving, Evangelical and Shurly.

Doctor J. Newton Roe, formerly Dean, Secretary and Everything in the Chicago College of Medicine and Surgery, was convicted in Judge Landis Court, Chicago, of conspiracy and violation of the Volstead Act by a jury. Maximum penalties for the above offenses are ten years in prison and $1,000 in fines.

The program of the May 9 meeting of the Medical Section of the Wayne County Medical Society was in charge of the Staff of Providence Hospital. Doctor Thomas White read a paper on "Thyroid Pre Pubitas," Doctor William P. Woodruff on "Relation of Tonsillar Infection to Thyroiditis," Doctor A. S. DeWitt on "The Medical Management of Thyroid Disease," and Doctor James E. Davis on "Thyroid Pathology."

The Detroit hospital training schools for nurses joined in community commencement exercises for the fourth year May 10, 1921. 136 young women of the classes of Providence (22), St. Mary's (10), Children's (8), Grace (21), Harper (59) Samaritan (6), Woman's (10) and were graduated.

Doctors J. M. Robb and W. D. Barrett of Detroit, gave a dinner May 4, 1921 in honor of Colonel Angus McLean and Doctor Don M. Campbell at the Essex Country Club. The guests included 20 Windsor physicians.

Doctor John Knox Gailey, who has removed to California, was made an Honor Member of the Wayne County Medical Society, April 18, 1921. The Doctor practiced medicine in Detroit for nearly 40 years.

The Kellogg Food Company of which Doctor J. H. Kellogg is President, was ordered May 5, 1921, by Judge North to change its corporation name and to hand over all orders received by the Kellogg Food Company through confusion of names to the Kellogg Toasted Corn Flake Company.

The Detroit Branch of the American Bacteriological Society held its annual meeting May 11, 1921 in the Medical Building, Detroit. Doctor R. W. Pryer was elected President and Doctor H. L. Clark Secretary-Treasurer. Doctor Fred G. Novy of Ann Arbor gave the address.

Doctor J. B. Kennedy of Detroit occupied the pulpit of St. Philip and St. Stephen Episcopal Church on Sunday evening, May 1, 1921 and delivered an address on "The Scientific Development of Medicine and Surgery."

Doctor J. J. O'Reilly of Brooklyn made an impromptu speech before the Medical Section of the Wayne County Medical Society, May 9, 1921, in support of the "guild" movement (federating the medical, dental and pharmaceutical professions) for the protection of the public.

The Detroit Otolaryngological Society met May 16, 1921 in the Medical Building, Detroit. Following the dinner Doctor P. M. Hickey gave a "Preliminary Report on the Use of the X-ray in Treatment of Tonsil and Adenoid Disease and Diphtheria Carriers."

Doctor C. D. Brooks was quoted in the April issue as speaking in favor of the Closed Hospital Bill before the Senate Health Committee. We beg leave to state that this is an error as Doctor Brooks did not speak in favor of this bill.

The regular monthly meeting of the staff of Grace Hospital, Detroit, was held April 19, 1921. Doctor S. Wilson read a paper on "Encelphalitis Lethargica" and Doctor A. E. Schiller, on "The Use of the Violet Ray in the Treatment of Diseases of the Skin."

The nurses of Grace Hospital Training School Detroit gave a farewell reception April 27, 1921, in honor of Misses Laura Meader and May Still who left the early part of May for Boston where Miss Still was married to Doctor R. C. Treves and Miss Meader to Mr. J. L. Hult.

Doctor James W. Inches was a member of the General Committee which arranged the dinner given in honor of Secretary of the Navy, Mr. Edwin Denby, by the Detroit Board of Commerce April 30, 1921.

At the annual meeting of the Wayne County Medical Society May 16, 1921, the following officers were elected: Doctor James E. Davis, President; Doctor J. H. Dempster, Vice-President; Doctor B. C. Lockwood, Secretary; and Doctor A. D. Holmes, Trustee.

Doctor Samuel Lloyd of New York City read a paper on "Surgery of the Lung" May 16, 1921, before the Wayne County Medical Society. Doctors Brooks, F. B. Walker, Tyson, Wolff, Hickey and Rich discussed it.

At the general meeting of the Wayne County Medical Society May 2, 1921 Doctor C. Levantis read a paper on "A New Theory of Sero-Therapy" and Mr. G. S. Gillberg on "Medical Gymnastics and Passive Exercises."

Doctor Albert H. Garvin, Supt. of the Detroit Municipal Tuberculosis Sanatorium at Northville, outlined the work of the Department of Health April 28, 1921, at the luncheon of the Cornell Alumni of Detroit.

On May 2, 1921, the Wayne County Medical Society voted their approval and support of School Week (May 9-13, 1921.) This week is an effort on the part of the Board of Education to bring the school and the parents nearer together.

The Detroit Academy of Medicine met in the offices of Doctor B. R. Shurly, May 10, 1921. Doctor Carl S. Oakman, Corresponding Fellow of the Academy, read a paper on "A Physician's Experiences in Business."

On May 10, 1921 Doctor B. R. Shurly talked on "The Reasons for not being a Doctor" and Doctor J. B. Kennedy on "Medicine as a Profession" before the Detroit Junior College in their "Find Yourself Week."

Doctors A. L. Jacoby of Detroit and A. M. Barrett of Ann Arbor appear on the program of the National Conference of Social Work, to be held in Milwaukee, June 22-29, 1921.

On May 2, 1921, Doctor Charles H. O'Neil was named by the Flint Council a member of the Flint Board of Health. He succeeds Doctor Walter H. Winchester.

The Michigan State Board of Registration in Medicine will hold examinations in Ann Arbor on June 14, 15 and 16 and in Detroit on June 20, 21 and 22, 1921.

On May 9, 1921, the Medical Section of the Wayne County Medical Society elected Doctor H. B. Schmidt, Chairman and Doctor T. B. Marsden, Secretary.

Doctor R. W. Gillman returned to Detroit April 29, 1921 after spending a month with Mr. and Mrs. Theodore Fletcher at their winter home in West Paget, Bermuda.

Mrs. Carstens (widow of Doctor J. H. Carstens) and daughter, Miss Mildred Carstens, returned to Detroit the middle of May. They spent the winter traveling in California.

Miss Edwina Helen Kiefer, daughter of Doctor and Mrs. Guy L. Kiefer of Detroit, will be married June 4, 1921, to Mr. Homer Calvin Bayliss, of Cleveland.

There are 31 National Red Cross Societies engaged in a world wide crusade for the improvement of the health, the prevention of disease, and the mitigation of suffering.

Doctor and Mrs. Ira G. Downer of Detroit announced the birth of a daughter, Jean Alice, April 30, 1921.

Doctor and Mrs. R. E. Mercer returned to Detroit May 1, 1921 after a visit of several months in the Southwest.

Mrs. J. W. Richardson, mother of Doctor A. L. Richardson, of Detroit, died May 12, 1921.

The Farrand Training School (Harper Hospital, Detroit) graduated 59 nurses, May 10, 1921.

Do not fail to attend your Society meetings regularly. You need them as much as the other fellow.

Read the advertisements. It will profit you.

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Doctor and Mrs. W. R. Chittick of Detroit will open their summer home at Kewahdin Beach early in June.

The Homeopathic Medical Society of the State of Michigan held its 52nd Annual Session in Grand Rapids, May 11 and 12, 1921.

Doctor Robert MacKenzie of Detroit was married May 19, 1921 to Miss Ethel L. Sweet of the same city.

During the first four months of 1921 there were 3,745 deaths in Detroit against 6,725 for the corresponding period of 1920.

Doctor Alice M. DeForest returned to Detroit May 1, 1921, after a several month's trip to the Hawaiian Islands and Southern California.

Admiral William C. Braisted, U. S. Navy, retired, has been offered the Presidency of the Philadelphia College of Pharmacy.

Doctor V. C. Vaughan of Ann Arbor recently accepted the Chairmanship of the Medical Section of the National Research Council.

Doctor and Mrs. Lewis S. Potter of Detroit announced the birth of a son, George Edward, May 11, 1921.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. Secretaries are urged to send in these reports promptly

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BAY COUNTY

A regular meeting of the Bay County Medical Society was held at the Board of Commerce Club, April 25th. Routine business was transacted and committee reports heard. The Society endorsed the action of protesting against the Chiropractic bill before the Legislature but were at a loss to understand how the bill was ever allowed to pass both houses so overwhelmingly the first time.

Dr. Grosjean of the local society then read a paper on, "Pelvic Inflammatory Disease." The paper was sharply discussed.

Monday evening, May 2nd, the Society met in special session at the Board of Commerce Club and listened to a most elevating and inspiring talk on "A Personal Inventory" by Prof. Henderson of La Salle University. This was an open meeting and members' wives were in attendance. A light banquet followed the lecture. The talk, while not in any sense medical, was thoroughly enjoyed and the forcefulness of Dr. Henderson's delivery was a rare treat.

L. Fernald Foster, Secretary.

GENESEE COUNTY

The clinical section of the Genesee County Medical Society met April 21, 1921, President Orr presiding. Dr. Max Burnell read a paper on "Osteogenesis Imperfecta." He reported a case showing multiple intrauterine fractures and showed the X-ray plates. Dr. W. H. Marshall reported a case of Aortic Aneurysm that had ruptured into the pleural cavity and showed the pathological specimen, with sections from the aneurysmal wall. Dr. Leo Himmelberger, who has had a large experience with experimental Botulism read an interesting review of what we now know of this disease.

The Genesee County Medical Society met for noon luncheon, Wednesday April 27, 1921, President Orr presiding. Several interesting volumes from the library of the late Dr. Locy, of Davison have been added to our library. A communication from Mayor Atwood asking the society to recommend a doctor for position on the Board of Health was read. Dr. C. H. O'Neil was the choice of the society. Dr. H. M. Rich of Detroit spoke on "Present Status of Our Knowledge of Bronchial Asthma." He outlined the advance of our knowledge from 10 years ago when an authority said that Asthma "was original sin of the respiratory centers," to today when experimental and clinical facts have shown it to be an anaphylaxis or allergy. He outlined his methods of discovering the offending protein and reported many interesting cases illustrating the methods of treatment.

W. H. Marshall, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The Gratiot-Isabella-Clare County Medical Society held their May meeting in Brainerd Hospital in Alma, Thursday, May 12. We had Doctor Merrell Wells of Grand Rapids with us to talk on Encephalitis Lethargica. The Doctor talked from notes, and took up each part of the subject systematically, giving the epidemiology, etiology, symptoms, pathology, diagnosis and treatment.

Doctor Wells always covers a subject thoroughly and this was not an exception. He was given a vote of thanks.

E. M. Highfield, Secretary.

HILLSDALE COUNTY

The regular quarterly meeting of the Hillsdale County Medical Society was held at the Court House, Hillsdale, on Tuesday, April 26, 1921, President, Dr. T. H. E. Bell, in the chair.

Dr. W. J. V. Deacon of the State Department of Health, addressed the Society on "Public Health and Public Welfare," calling attention to the work of the Department in arresting and controlling outbreaks of epidemics of contagious diseases and the good work of the laboratory department in its bacteriological and pathological work.

Discussion by Dr. A. G. Doty, Health Officer of Hillsdale City, and Dr. G. R. Hanke of Waldron, followed by general discussion by Dr. Green who characterized the work of the Department of Health as a "Public Education," Dr. Whelan who thought the laity should be called upon to aid in the work of Education and Dr. Stoner who called attention to the comparatively large proportion of tuberculous suspects at the public clinics at Jonesville some years since that were pronounced "positive" that have never developed. This illustrates the danger of branding cases of suspected tuberculosis as positive on the strength of a single physical examination however expert.

Dr. W. H. Sawyer of Hillsdale then read a paper on "Our experiences and Limitations with the X-ray." He illustrated his paper with a large number of radiograms of various fractures and other pathological conditions showing conclusively the great value of this line of work in the county. Dr. Sawyer's paper was given close attention by the members present and a general discussion followed by Drs. Deaconer, Stoner, Whelan and others.

One new member, Dr. Jas. M. Barnes of Waldron was received into the Society and the name of Dr. Yeagley, also of Waldron, was proposed for membership, to be voted upon at next meeting.

D. W. Fenton, Secretary.

Book Reviews

PRACTICAL CHEMICAL ANALYSIS OF BLOOD: Victor C. Meyers, M. A., Ph.D., Professor of Pathological Chemistry in the New York Post-Graduate Medical School and Hospital. Price, $3.00. C. V. Mosby Company, St. Louis.

This book, the most recent addition to the new field of blood chemistry, is of value to the internist and surgeon as it indicates when and why certain blood chemical analyses should be made. A single method only for each determination has been outlined, each based on the writer's several years of experience in this work. Rapid advances have been made in recent years in the field of blood chemistry and this excellent book sets forth in a very clear and comprehensive way the value of these examinations in diagnosis and prognosis.

SURGERY OF THE UPPER ABDOMEN. John B. Deaver, M.D., and A. P. C. Ashhurst, M.D. Cloth, illustrated. Price $14.00. P. Blakesston's Son & Co., Philadelphia.

This is the second edition of this representative text. One knowing the standing of these authors and the place they have attained in American Surgery realizes the authoritativeness of this text. It meets up to every expectation. It is complete in every detail. Specific in diagnostic and operative details. No surgeon can afford not to be in possession of this text and to refer to it frequently. It is acknowledged as the last word in surgery of the upper abdomen.

EYE, EAR, NOSE AND THROAT NURSING. By A. E. Davis, M.D., and Beaman Douglas, M.D. Cloth. Price $2.50. F. A. Davis Co., Philadelphia.

Here is a splendid nursing guide for those who attend the patients of the specialties mentioned in the title. It is a comprehensive, detailed text that will enable the nurse to properly observe the proper nursing care of this group of patients. We commend it very cordially.

RATIONAL TREATMENT OF PULMONARY TUBERCULOSIS. By Charles Sabourin, M.D. Cloth. Price $3.50. F. A. Davis Co., Philadelphia.

This is the authorized translation of the sixth

French edition. It is a most detailed presentation of the rational treatment of this disease. We cannot commend it too highly. We are indeed indebted to the publishers for making this text available in the English language.

NEW POCKET MEDICAL FORMULARY. Wm. Edward Fitch, M.D. Third Edition. F. A. Davis Co. Price $2.50.

An alphabetical order of diseases with such pharmaceutical combinations as have been proven useful in their treatment. A valuable collection of potent prescriptions.

HANDBOOK OF ELECTROTHERAPY. Burton B. Grover, M.D. Cloth. Price $4.00. F. A. Davis Co., Philadelphia.

A desirable text setting forth the principles of electrotherapy. One must need just such a text if he is going to utilize to full advantage the benefits obtainable from electrotherapy.

A COMPENDIUM OF PHYSIOLOGY. A. P. Brubaker, M.D. 15th Edition. P. Blakeston's Son & Co. Price $2.00.

This 15th edition of this compendium brings it up to date with recent advancements. It presents the essential facts of physiology.

Miscellany

THE CAUSES AND TREATMENT OF THE CONDITIONS UNDERLYING HIGH BLOOD PRESSURE.

Conclusions:

1. High blood pressure appears to depend chiefly upon a a narrowing of the lumina of the arterioles in the precapillary areas.

2. The arteriolar narrowing is at first functional, due to hypertonus of the arteriolar musculature, though later it is also partly organic due to arteriolar sclerosis.

3. The actual causes of the persistent arteriolar hypertonus and of the organic arteriolar sclerosis are as yet unknown, though many ingenious hypotheses have been invented in explanation. The relations to chronic renal disease, to atherosclerosis in general, to exogenous and endogenous poisons, to infectious processes, to the 'wear and tear' of life, to abnormal metabolic states, to endocrine disorders, and to certain types of constitutional make-up, have been much discussed.

4. The different types of chronic arterial hypertension would seem to be closely related to one another, probably representing different stages in the development of one and the same fundamental process, a process that may, however, advance with variable rapidity and with variable associated involvements of cardio-vascular, renal, cerebral and other structures in different cases.

5. When recognized early the process may often be wholly arrested; or it may be so delayed in its progress that the patient may live comfortably for years, sometimes even for decades, before troublesome symptoms or dangerous complications occur.

6. In the late stages of the process much can be done to ameliorate symptoms and to ward off dangers, though in the actual end-stages both patients and physicians do better bravely to face reality, accepting the inevitable, rather than through wishful thinking to increase suffering by resort to a meddlesome therapy that attempts the impossible.

7. To prevent the development of the pathological process underlying high blood pressure, one should first 'get himself well born,' without 'constitutional inferiorities,' and then should avoid intoxications and infections and lead a life without too much wear and tear. He should satisfy his physical, economic, social, educational, aethetic and ethical desires in a well-balanced way, so ordering his activities that he will secure the highest self-realization possible in the service of the society in which he lives.

8. The cultivation of the sense of proportion in the conduct of life, 'avoid extremes,' will go far toward preventing the onset of a malady that is all too prone to develop in modern civilization, cuts short in the early afternoon lives that, rationally led, might experience work and joy until the evening.

(Ohio State Medical Journal, October, 1920, Lewellys F. Barker).

SOME PRESENT DAY MEDICAL PROBLEMS IN ENGLAND.

Sir Thomas Horder of London.

(Read before the Surgical Section, Wayne County Medical Society, April 25, 1921).

It is about time that the politician realized that he is not the best judge of what constitutes efficient medical service and that he can not alone settle this question. Without doubt the Englishman is in a worse position to-day than when the health insurance act was passed.

This insurance act gave rise to so many alarms that many associations of one sort or another were formed, ostensibly for the purpose of protecting physicians interests.

Among these the following might be mentioned: (1) The Medical-Political Union which is a trades union and which reserves the right to call out its members on a strike; (2) The National Medical Union which aims to let the medical man alone to follow his chosen course; (3) Innumerable associations of public health officers, of women physicians, of medico-psychologists, of heads of tuberculosis hospitals and many others; and (4) The Federation of medical and allied societies which includes representatives of every branch of the profession and of some lay societies and which works out its problems through the medium of three co-operating councils, one of which is medical.

The British Medical Association has lost much ground and prestige through its failure to stop the insurance act. It has refused to join the Federation. It is perhaps better that it should retain the old academic and scholarly atmosphere, removed from the realm of politics.

No physician is compelled to serve on the panel. Some who were panel men at the beginning, have given it up and some who did not like it at first have joined the panels later. Some are panel men by nature and some are not.

There are other forms of state medicine. You have them in America, tuberculosis, venereal, child welfare and anti-natal clinics. No one ever questions these.

There is a better system than all these. . It is known as the 'Dawson Scheme.' First there will be a domiciliary service, hundreds of little health centers scattered through the community. Second there will be the primary health centers, nothing more than fairly large hospitals with staffs able to care for a number of the smaller centers in the neighborhood and open to the general practitioners; Thirdly, There will be the secondary health center or larger hospital closely connected with a university medical school, directly responsible for a number of primary health centers. This scheme has not yet been put through because Britain has no money.

The difficulty in America is that she has failed to link up the hospital and the public clinics with the medical education program as closely as has Great Britain. Detroit's splendid hospitals and possible clinical material should be made more available to students and their instructors in the medical schools.

VITAMINES (Conclusions).

1. There are at least three vitamines, fat soluble A, water soluble B, and water soluble C.

2. All of these are necessary to growth in children and to ward off diseases from malnutrition (both in children and in adults.)

3. All three types are contained in milk and green vegetables so that whoever drinks a couple of large glasses of milk and eats a good salad daily need not worry about his diet as far as the vitamines are concerned.

4. Fat soluble A is predominent in cod-liver oil, butter fat, yolk of egg and green leaves.

5. Children must have fat soluble A for growth and to avoid rickets and xerophthalmia.

6. Water soluble B is found in outer hulls of grain, milk and in yeast.

7. The absence of water soluble B in the diet is sometimes shown by acne, boils and in extreme cases by beriberi.

8. Water soluble B is believed to be a stimulant to the action of some of the endocrine glands.

9. Water soluble C is an antiscorbutic, is easily destroyed by heat and drying except in acid medium.

10. Water soluble C is found in milk, oranges, cabbage and tomatoes.

11. Owing to the acid nature of tomatoes the can product is also rich in water soluble C.

12. It is better to buy our vitamines of the green grocer than of the apothecary.

(Harper's Monthly Magazine, March 1921, Ellwood Hendrick).

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THOUSANDS come to Michigan every year to find relief from Hay Fever. However many opinions there may be as to the causes and cure of Hay Fever, the fact remains that in Michigan, every year, thousands are being relieved of this troublesome ailment. Some find relief in Southern Michigan, anywhere along the shores of the big lake. Others find it necessary to go farther up-state for complete relief.

But Michigan is the state to which these sufferers turn for relief and in many cases permanent relief.

Invite your former patients and friends to come to Michigan, the healthful summer resort state.

Write us or ask them to write us for full details as to routes, rates, hotel, boarding house and camping informations.

No charge for our service. We are glad to send the information.

Our Michigan road-map book and our year book, "Michigan" are ready. Sent anywhere on application.

For specific information as to points in the northern peninsula, address our branch office in Marquette.

LOOK FOR THESE SIGNS

MICHIGAN TOURIST AND RESORT ASSOCIATION

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M I C H I G A N

FLY POISON CHART

Record of press clippings showing 160 cases of poisoning in 5 years. Mostly children between 1 and 3 years. 50 known fatalities.

	1913		1914		1915		1916		1917		TOTAL	
	Numb. Cases	Fatal	Numb. Cases	Fatal	Numb. Cases	Fatal	Numb. Cases	Fatal	Nnmb. Cases	Fatal	Numb.	Fatal
Arizona	1										1	
California	1						1				2	
Colorado									1	1	1	1
Florida			1	1							1	1
Georgia					1	1					1	1
Idaho			1	1							1	1
Illinois	2	1	4	1	6	2	9	3	7	2	28	9
Indiana			8	2	2		1				11	2
Iowa			7	1	4	1	3		3	1	17	3
Kansas									4	1	4	1
Kentucky			2	1							2	1
Massachusetts					2	1					2	1
Michigan	6	2	3	2	2	1	1				12	5
Minnesota	2	2	5				10	6	2	1	19	9
Missouri					1	1	2	1			3	2
Montana							1	1			1	1
Nebraska			2		1		3	1	1		7	1
New Jersey			2						1		3	
New York			2		1						3	
North Carolina			1								1	
North Dakota	2	1	2				2	2	2		8	3
Ohio	2		3		1						6	
Oklahoma	1	1			1						2	1
Oregon	1										1	
Pennsylvania	1	1	3	1	2		4		1		11	2
South Carolina									1		1	
South Dakota							1		1	1	2	1
Vermont							1				1	
Washington	1										1	
Wisconsin	1				2	1	2	1			5	2
Canada			1	1					1	1	2	2
	21	8	47	11	26	8	41	15	25	8	160	50

RECAPITULATION.

	1913	1914	1915	1916	1917	Total
Fatal	8	11	8	15	8	50
Recovery Doubtful		6	4	3	3	16
Recovery Probable	12	31	14	23	14	94
	20	48	26	41	25	160

Ninety per cent of all case occurred during July, August, September and October.

The similarity of symptoms to those of cholera infantum make it practically certain that many cases of poisoning from arsenical fly destroyers are not correctly diagnosed. The children are in most cases too young to realize or to tell what they have done, and unless actually seen taking the poison, the illness is apt to be diagnosed as cholera infantum. The remedy for arsenic is not given and the case is treated as cholera infantum, which is, of course, prevalent at the time these fly destroyers are in use.

The laws of many States throw certain safeguards around the sale of poisons but, although these laws would appear, in many cases at least, to regulate the sale of poisonous fly destroyers, they are usually ignored.

Tanglefoot Sticky Fly Paper is non-poisonous

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Strongly made, cleanly designed, with five adjustable glass shelves. Steel sides, plate glass door, utility steel shelf below. Height, 67 in.; width, 21 in.; depth, 15 in.
6CJ944 Cabinet..$65.00

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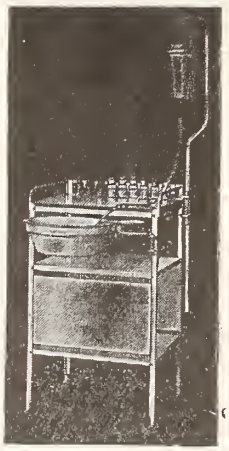
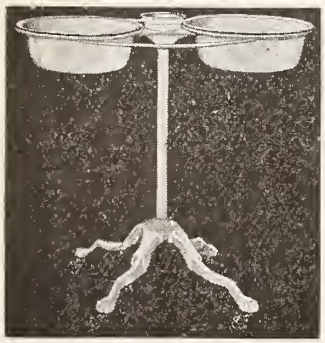
This desirable outfit is well suited for general office practice and emergency work. It consists of a U. S. Army model examining and operating table, a combination immersion bowl and irrigator stand, and a very useful instrument table. Operating table and instrument stand are mobile, mounted on ball-bearing casters. Made throughout from heavy sheet steel, tubes and angles, finished in clean, washable white enamel.
6CJ751 Three Piece Office Outfit.....$45.00



Railway Surgeon's Stand

Has 9 glass stoppered bottles enclosed on top with railing. Irrigator with rod and swinging bowl add to its convenience. Below is large compartment, 20x16x12 inches, for pus basins, dressings, etc. Size top, 16x20.
6CJ1015 Surg. Stand..$20



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A sturdy, well balanced stand. Complete with two 13-inch, white enamel, porcelain finished steel bowls.
6CJ904 Immers'n Bowl St'd.$12.50

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Investing in modern steel office equipment is like investing in the best gold bonds—it pays dividends.

It's easy to work with modern up-to-date equipment and patients are always favorably impressed with it. Besides, steel equipment, especially the Betz kind, resists wear. It looks well for years and years when covered with Betz clean, washable, wear-resisting white enamel.

Then, there's a lot in the way furniture is designed. Betz steel furniture is to be found most everywhere, so physicians are familiar with its clean lines and convenient design. We have been making it for 25 years at reasonable prices, and that experience is built into every piece.

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These chairs are very substantially made with seat and back welded solid to the tubular steel frame. Made to fit body curves.
6CJ1070 Chair with arms, each..$9.50
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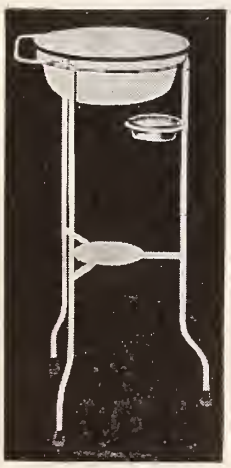

Portable Wash Bowl St'd

A clean, strong combination stand complete with 13-inch single bowl, pitcher and soap dish. A convenient portable stand.
6CJ900 Wash Bowl and Stand $9.00

Revolving Office Chair and Stool

All-purpose steel chair and stool, adjustable as to height. All metal, pressed steel seat.
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6CJ1076 Stool.....$7.00

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Mayo's Stand

A handy combination of irrigator, immersion bowl stand and instrument table. Has 13-inch adjustable bowl and 13x19 inch adjustable table for instruments. Is 48 in. high.
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The Journal
OF THE
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Original Articles

THE ATTAINMENT OF CERTAIN IDEALS IN OBSTETRICS.*

ALEXANDER MACKENZIE CAMPBELL, M.D., F.A.C.S.
GRAND RAPIDS, MICHIGAN.

The writer has been interested in the practice and the progress of obstetrics for a quarter of a century and it seemed to him that a consideration of the consummation of certain ideals in connection with the obstetrical art might be an appropriate theme for this occasion.

It is obvious that at the present time forward looking physicians realize that the medical profession's relation to the public is on the threshold of great changes. The amount of medical knowledge at the present time is so colossal that the general practitioner, realizing his inability to encompass its various parts, is passing from our midst. The division of medicine into various specialities has been a natural evolution and it will probably increase as medical knowledge increases. We, as a profession, are under censorship. The intelligent and penetrating public is becoming better informed on medical questions and it realizes that the profession as a whole has lamentably failed in the diagnosis and treatment and general management of many conditions and diseases which are its function to prevent and remedy. And whether the people are going to decide to legislate us out of business into compulsory health insurance, state medicine, or some other form of servitude remains largely in our own hands, and the very suggestion of such an eventuality should make us, as a profession, analyze ourselves honestly and organize ourselves efficiently with a view of increasing our usefulness and prestige in the community.

The criticism which may be justly made of medicine in general pertains to obstetrics in particular, notwithstanding the fact that from the first time the first mother gave birth to her first child until the present moment the problems to be met have been practically without variation.

It is a sad commentary that a country that takes its place among the great powers of the world should stand seventeenth in the list of nations that give care and treatment to women in childbirth. Approximately twenty-five thousand women die in childbirth in this country every year and about seventy-five per cent. of such deaths could be prevented by proper treatment. Furthermore this appalling fatality has not been materially reduced during the last quarter of a century and according to present statistics one may judge that 1921 will show an even higher maternal mortality than the above figures. In 1918, four hundred and thirty-eight women sacrificed their lives as the result of childbirth in Michigan alone. In addition to the frightful mortality attending childbirth, both maternal and infant, the morbidity from each produces an inefficiency and an economic loss that is simply incalculable.

The above statements clearly indicate that at the present time the obstetrical art is in a deplorable condition. Are we not justified and in fact obligated as physicians to reach out even feeble hands in an attempt to realize certain ideals which will improve the character of this work? Is it within the bounds of possibility that within the next quarter of a century every expectant mother first will herself be a normal physical risk for childbirth? Second, that she will be under constant prenatal supervision? Third, that during the ordeal of childbirth she will be under the care of an obstetrician who will be sufficiently trained to employ conservative and standard methods of procedure? Fourth, that the puerperium will be carefully guarded by skilled obstetrical nursing, so that it will result in a happy and uneventful convalescence? Fifth, that she can be returned to her family and to society without morbidity of any kind?

The consummation of the above mentioned desiderata is to a great extent the responsibil-

*Chairman's Address, Section of Gynecology and Obstetrics, Michigan State Medical Society, Bay City, Michigan, May 25, 1921.

ity of the medical profession. Obstetricians who have had long experience and special training are frequently able to conduct their patients according to the ideals mentioned above, but unfortunately the majority of women who have borne children suffer a silent invalidism which destroys the peace and even the integrity of many a household.

In Grand Rapids a prenatal clinic was established in a very modest way in 1915. At first its attendance was limited but this clinic has gradually grown and at the present time is a very active organization. Over one thousand women have had prenatal treatment and instruction since its establishment and about fifty per cent. of the mothers have been confined in local hospitals. We are proud to state that there has not been a single maternal death among the thousand women who have attended the clinic.

The clinic is centrally located and is held once a week. Careful physical examination and careful records are made. Special obstetrical charts are used and pelvimetric, urinary and blood pressure examinations are made. Nutrition is observed, the weight is taken at regular intervals and at the present time a Wassermann examination is made in every case. In other words, the clinic cases are given the same attention as the obstetricians give their own patients in their own offices. Prenatal nurses visit these women at their homes and investigate their social conditions. Arrangements are made for their proper delivery either at home or at the hospital. The clinic attendants encourage all mothers to go to the hospital for confinement and this is especially demanded where pathological conditions are detected.

We are positive that the prenatal instruction as given in Grand Rapids has been of very great value, that it has been a very great educational factor not only to the laity but it has been a stimulant to the general practitioner to give his obstetrical cases more careful prenatal care. It has also blazed the trail for further advances in the care of expectant mothers, such as have been suggested in the recent Federal Maternity Bill. Dr. Louis I. Dublin in his statistics has shown that proper prenatal and maternity care has resulted in the following:

First—in reducing maternal mortality from five to two in one thousand confinements.

Second—in reducing still births from forty to twelve in one thousand births.

Third—in reducing infants' deaths under one month from forty to ten in one thousand births.

Kosmak has well stated that there is no one factor of as great importance to the health and economic status of the country as a mother well qualified physically to bear and bring up healthy children. The entire fabric of a nation so closely depends upon it that there would seem to be no worthier governmental function than to provide for and supervise it. While it is obvious that any means which will increase general knowledge of the care of the expectant mother should receive the support of all intelligent people, the great question is the best way to accomplish it. The Shepperd Towner Bill, which may become a law before this paper is published, provides for the appropriation of a large sum of money from the Federal Sreasury to be prorated to the various states, provided that the states appropriate an equal amount. This prospective grant is intended to induce states to appropriate equally large sums. The criticism which has been justly made of the plan of this bill is that, according to the writer's understanding, all sums spent and plans carried out must be under the supervision of the children's bureau in Washington. The Shepperd Towner Bill was introduced at the last session of Congress and was not acted upon. It has been re-introduced in the present session in both Senate and House of Representatives and at the present time has been favorably acted upon by the Senate Committee to which it was referred. No action has been taken by the committee of the House of Representatives but the indications are that it will pass both houses of Congress at this session. This bill has been endorsed by the President of the United States, by innumerable women's organizations and by almost every important religious denomination in America. It has been officially endorsed by the governors of thirty-four states. If this bill had been the work of all the competent obstetricians in this country and had the medical profession as a whole interested itself in it, it probably would have been a much more satisfactory measure than it is.

Over fifteen years ago the writer in a paper presented before this State Society advocated the periodical examination of the apparently healthy. It was quite an uncommon practice at that time but it is an every day occurrence now. How much more necessary it is that examinations be made in cases of pregnancy where the lives of both mother and child are concerned. Statistics from Washington have shown that about thirty-three per cent. of the men of military age who applied for entrance into our army was unfit for military duty. It would have been interesting had an equal number of women of corresponding age been examined to ascertain what percentage of them were fit for maternity service.

Proper eugenic laws regulating marriage would be a step in advance toward realizing some ideals in obstetrics and in our own state during the last legislature a eugenic bill which had some very excellent features was defeated, probably because the medical profession did not inform and interest itself in its passage.

The writer believes in birth control to the extent that the obstetrician should instruct certain of his patients how to avoid pregnancy. This of course entails possession by the physician of the highest sense of responsibility and duty and honor, for the dangers of abuse of this prerogative are obvious. On the other hand it is also the duty of the obstetrician to assist in every way possible to overcome sterility. The determination as to whether the husband or wife is deficient in a sterile marriage has now reached a considerable degree of accuracy and the X-ray Pneumo-peritoneal work, which has been done by Petersen and Van Zwallensberg of our own state, and the work of others, promises a new epoch in the management of sterility.

The writer desires to make a plea for a most careful physical examination of the expectant mother. In addition to the genital tract, the teeth, tonsils, accessory sinuses and all other possible foci of infection must be carefully sought after. The recent work on endocrinology promises a fertile field of interest in obstetrics, and the chemistry of the blood is receiving more and more attention.

Obstetrics as a specialty has so many points of contact with other branches of medicine that frequent consultations are not only advisable but imperative if the best interests of the patient are to be conserved.

We desire to emphasize the importance of a more wholesome respect on the part of the obstetrician for the natural forces which are employed in childbirth and while the modern viewpoint accentuates the minimization of suffering on the part of the mother, in these days of Pituitrinism, Potterism, and Prophylactic Forcepism there is a tendency to sacrifice the best interests of both mother and child to the convenience of the busy doctor. In this connection, while the indications for Caesarean Section should be as well known as the letters of the alphabet, our own statistics as recently gathered in Michigan, indicate that the correct information on this procedure has not filtered into the minds of the profession as thoroughly as it should have done.

General practitioners must equip themselves both mentally and mechanically so that they can meet with equanimity the various complications incident to obstetrical work. A campaign of education should be commenced which will educate the people to be afraid of employing physicians who are not competent to do good obstetrical work. The case reports of surgeons, gynecologists, neurologists and many other specialists bristle with the revelation of obstetrical work poorly done.

It seems to the writer that the highest ideals obtainable in this country can only be realized when the entire medical profession interests itself in this problem. The responsibility does not rest entirely with the specialists who are teaching and practicing obstetrics in the larger medical centers. There are hardly enough trained obstetricians in the whole United States to properly care for the expectant mothers in the state of Michigan at the present time. The responsibility as the writer sees it is on the shoulders of every member of the medical profession; for as guardian and protector of public health it is his obligation to educate the people in his community as to the dangers of poor and the advantages of good obstetrical care. General practitioners, who, in reality, do the most of the obstetrical work, have a particularly solemn responsibility in this connection. The searchlight of public opinion is being turned upon maternity work in this country. The standardization of hospitals, by which careful records of all kinds of medical work are kept and made public, the establishment of prenatal clinics and the attempts at Federal and State legislation which are being made, all of these agencies will soon force the physician to improve the quality of his maternity work or to refer it to more competent hands.

The above desultory remarks contain a number of suggestions which should tend toward the attainment of some ideals in obstetrics. Every physician has the responsibility in this way and can play a part in helping to raise obstetrics from the lowest level of mediocrity to the highest of arts. The profession must place a higher value on obstetrics as a specialty and medical students and the younger members of the profession should be taught that no branch of medicine brings greater reward for honest and conscientious toil than does obstetrics. Furthermore there is no department in the whole science of medicine where profound study and expert training are more essential.

The writer desires to make a suggestion which he thoroughly believes would be an excellent commencement toward the realization of certain ideals in Michigan obstetrics: and that is, that a society known as the Michigan Ob-

stetrical Society be formed immediately, the membership of this society to consist of all the physicians in Michigan who are practicing obstetrics exclusively and those whose interest in and experience in obstetrical work entitle them to membership: and that this society, formed it is to be hoped in the very near future, shall interest itself in all the factors that make for better obstetrics, such as the improving of the curriculum in medical schools, the encouragement of young men to engage in obstetrics as a specialty, the holding of clinics for the benefit of general practitioners, the organization for prenatal instruction to mothers, the recommendation of the erection of maternity hospitals in all counties or other districts that need them, and the presentation of bills before the state legislature which will make possible the diffusion of such information by properly trained individuals as will promote the best interests of the expectant mother from the advent of her pregnancy to the termination of her puerperal convalescence.

It seems to the writer that the following words from President Harding's Inaugural Address might form an appropriate conclusion to this plea for the attainment of higher ideals in obstetrics:

"We want an America of homes illumined with hope and happiness, where mothers, freed from the necessity of the long hours of toil beyond their own doors, may preside as befits the hearthstone of American citizenship.

"We want the cradle of American childhood rocked under conditions so wholesome and so hopeful that no blight may touch it in its development, and we want to provide that no selfish interest, no material necessity, no lack of opportunity shall prevent th gaining of that education so essential to best citizenship.* * * Where genius has made for great possibilities, justice and happiness must be reflected in a greater common welfare.

Metz Building, May 25, 1921,
Grand Rapids, Mich.

DIGITALIS THERAPY.*

Joseph B. Whinery, M.D.
GRAND RAPIDS, MICH.

Digitalis therapy depends on our knowledge of the effect of this drug upon the normal and diseased heart. The work of investigators in the past decade has done much to establish a more rational application of digitalis in diseases of the heart. It has been known since the time of Withering, in 1785, that digitalis, under certain conditions, causes a slowing of the heart rate. It has also been known for many years that it does this by stimulating the vagus center in the medulla which results either in a depression or a retardation of the rate of impulse originating in the sinus, and affecting the whole heart or in a depression of the conductivity of the impulse to the ventricles through the bundle of His. Digitalis, aside from its effect in a central way, has a local tonic effect on the weakened myocardium. It increases the tonicity, irritability and strength of contraction. It cannot increase the absolute power of the heart. Its diuretic effect is dependent upon improved circulatory condition in the kidneys.

With a normal pulse rhythm, slowing of the pulse rate is not a prominent effect of digitalis, but the work of Cohn and others shows that it causes quite a constant delay in the conduction of the impulse. Felix Meyer finds that the effect of digitalis on the coronaries is not of a constricting nature but rather that it acts as a dilator. By its tonic effect on weakened heart muscle it may thus prevent pains of an anginal nature. Slowing of heart is one of the symptoms of its toxic effects.

The reputation of digitalis in the treatment of heart disease rests largely on the success obtained in the treatment of auricular fibrillation. In many cases it is a specific. Lewis MacKenzie makes the statement that sixty per cent. of irregular hearts are irregular because the auricles are fibrillating. Eighty per cent. of the cases suffering from heart failure with dropsy are accompanied by fibrillation. In such cases digitalis inhibits many of the auricular impulses and slows the contraction of the ventricles. The rate of fibrillation of auricular is not affected. In the closely allied condition of auricular flutter digitalis has a similar effect.

Before beginning a course of digitalis therapy one should diagnose as nearly as possible the ability of the heart to perform its function. This means not only ordinary capacity but also the reserve strength of the heart. Mistakes in digitalis therapy most frequently arise from a lack of clear conception and differentiation of the diseases of the heart in which it has been found to be of value. The pronounced beneficial effect in cases of auricular fibrillation has led to its use in many and varied types of abnormal heart conditions when it was not indicated. The important thing to observe is the condition of the heart muscle. The symptoms of an aortic regurgitation or a mitral stenosis do not call for digitalis therapy unless there is an accompanying heart muscle impair-

*Read before the M.S.M.S., May, 1921, 56th Annual Meeting.

ment sufficient to produce circulatory disturbance. In considering the treatment of myocardial disease we must realize that the use of digitalis or any other drug is secondary to the general management of the patient. It may not be amiss to state that factors which might have a bearing on the patient's cardiac condition such as foci of infection from teeth, tonsils or elsewhere should be removed as far as possible. Proper treatment for toxic goiter conditions should be carried out. Cases of hypertension and arterio-sclerosis, with or without kidney involvement, should receive careful attention. The success of digitalis therapy in patients of moderate and severe grades of broken compensation depends largely on the general care. Rest of the patient both physical and mental, is of first importance. Response to medical treatment depends largely on the thoroughness with which this is carried out. The patient should be put to rest in the position in which he can breathe most easily and kept there until his improvement justifies a more normal activity. His mind should be kept free from all business cares and kindred annoyances. If the patient is unable to sleep the milder sedatives such as the bromides of ammonium, sodium or potassium, may be used in doses of from 15 to 30 grains, well diluted and given three or four times a day after food. Chloral hydrate given in 5 grain doses two to four times a day, is a safe and often efficient hypnotic. Usually its effect is increased by combining it with the bromides. Sulphonal, veronal, or paraldehyde may be given to induce sleep. In the presence of pain or dypnoea or orthopnoea, morphine given subcutaneously in doses ranging from1-8 to 1-4 grain is the most satisfactory sedative. Under certain conditions codeine and some of the other opium preparations may be found of service.

Careful attention should be paid to elimination. Free catharsis should be brought about in patients suffering from oedema and general stasis by the use of epsom salts and sulphate or phosphate of soda. In patients with less pronounced signs of decompensation almost any of the ordinary cathartics may be used.

The food should be of a simple and digestible character, regard being paid to its nutritional value. The limitation of salt and fluid should be regulated by the oedema. The more the oedema the greater the restriction. Whenever possible the amount of fluid intake and the urinary output should be compared.

In severe cases accompanied by cyanosis, dyspnoea and dilatation, venesection may be of distinct value in enhancing the good effect of digitalis and relieving strain on the right heart.

Let me again emphasize the importance of differentiating as far as possible the various kinds of arythmia and the cause of these irregularities before treatment is instituted. The so-called functional arythmia may be due to a disturbance outside the heart; to visceral reflexes, emotions, coffee, tobacco and alcohol. The arythmias of a distinct myocardial origin are those associated with myocardial disease, valvular disease, hypertension, arteriosclerosis, exophthalmic goiter and the result of infections.

In a considerable percentage of cases the cause of the arythmia is obscure. In the functional type the treatment of the cause of the irregularity should be the first consideration. In such cases digitalis is not indicated and if given may be harmful.

The presence of pulses alternans means a badly damaged myocardium and is of grave significance. The administration of digitalis may be of value along with other means of improving the heart muscle. In paroxysmal tachycardia digitalis is not indicated. It does not act in a specific way. It is stated that small doses may be of help and with symptoms of decompensation its use would be rational.

The beneficial effect of digitalis on a rapid heart with normal rythm (the result of acute infection or toxic goiter) is not marked. Neither does it correct the effect of high temperature, bacterial invasion and toxemia of heart muscle. However, in such cases good results may be obtained in developing fibrillation before blood pressure becomes depressed or marked circulatory failure sets in. In acute infectious endocarditis digitalis is not helpful. The use of digitalis in lobar pneumonia is quite a common procedure. It is given with the idea of producing partial digitalization, so that the later effect in cases of threatened heart failure may be obtained. Its use should be determined after a careful analysis and not by an indiscriminate following of routine.

In cases of heart block where there is impaired conduction, especially with failure of heart muscle, digitalis is not contraindicated but its action should be carefully watched for the detection of symptoms of too marked blocking of the heart.

In all degrees of decompensation with or without definite valvular defects, and in all grades of systolic blood pressure, from low to high, there is no contraindication to the use of digitalis.

The preparations of digitalis that experience has proved to be most satisfactory, are the tinc-

ture and the powdered leaf. These preparations are quite uniformly reliable, can be assayed and standardized and are suitable for oral administration. Eggleston finds that complete absorption takes place in six hours and that with proper dosage digitalization may be possible within from ten to twenty hours. The so-called cumulative effect may last for two weeks after discontinuing the therapy. No advantage is gained by more frequent dosage than from four to six hours. The tendency in the past has been toward too small doses.

Eggleston has recently outlined three plans of medication: (1) The small dose method. This is carried out by giving from 2 to 4 grains of the powdered leaf, or from 20 to 40 minims of the tincture four times in the twenty-four hours, until toxic symptoms appear. This may take from four to ten days or longer according to the potency of the digitalis.

(2) The large dose method. This gives 6 to 7 grains of the powdered leaf or one dram of the tincture every six hours for the first twenty-four hours. The second day the dose is reduced one-half and given every four hours during the day, being omitted during the night. The smaller dose is continued until complete digitalization is procured.

(3) The body weight method, by which full digitalization is obtained within ten to twenty-four hours. This is advocated in cases where the symptoms are urgent and a rapid, full effect of the drug is desired and is dependent upon an average total amount of digitalis which will produce full physiological effect expressed in terms of the activity of the drug and the patient's body weight in pounds. This activity is determined by the cat method of Hatcher, the details of which have been described in recent medical literature.

The dosage of digitalis commonly employed in the past has been, on the average, 15 minims of the tincture four times a day, or from 1 to 1½ grains of the powdered leaf given at the same intervals. Under certain conditions, intravenous or intramuscular treatment may be advisable and ampoules of digipuratum or digifoline representing from 1 to 1½ grains of the digitalis leaf may be used. These preparations, both in tablet form and in solution for hypodermic use are much more expensive and possess no especial advantage over the simpler standardized product.

Tht dosage of digitalis should not be measured by minims or grains but by the results obtained after a reasonable length of time. In chronic cases, where it is necessary to continue the use of digitalis over a period of time, 15 to 20 minims of the tincture or 1½ to 2 grains of the powdered leaf may be given in twenty-four hours without producing symptoms of intoxication.

In digitalis therapy we wish to emphasize accurate diagnosis before instituting treatment, careful attention to the general management of the case and the use of sufficient doses of the standardized and biologically assayed product.

PERIPHEREAL NERVE INJURIES.*

W. T. DODGE, M.D., F.A.C.S.
BIG RAPIDS, MICH.

Valuable additions have been made to the sum of our knowledge concerning injuries of the periphereal nerves, through the experience of surgeons, during and following the great war. Our attention was called to this subject in an excellent address delivered in this country before the American College of Surgeons by Sir Berkeley Moynihan in the fall of 1917. The principles governing nerve surgery were then presented in a most clear and convincing manner. He particularly protested against the practice of splicing nerves or of introducing any foreign substance as a graft between the ends of divided nerves. The value of this address becomes apparent when one studies the actions of nerve cells when a nerve has been injured or divided. Every wounded nerve is the seat of a bulky neuroma. The neuroma is the tumor produced by local proliferation of the regenerated nerve fibers. It is found on the central end of the sectioned nerve or above the cicatrix resulting from a tearing or perforation of the nerve. The axis cylinder when opposed in its natural course by coming in contact with coarse tissue curls up on itself and grows in a spiral, soon forming with its fellows a considerable enlargement of the central end. A tumor also forms on the proximal end, but this tumor

*Read before Section on Surgery, M.S.M.S., May, 1921, 56th Annual Meeting.

is styled a Pseudo-neuroma caused by a proliferation of the neuroglial cells.

Before suturing a nerve it is necessary to remove the tumors on both ends of the divided nerve until the bundles of divided nerve fibres are observed presenting an appearance resembling the wires in a divided telephone cable. Injuries of nerves are produced by pressure from fragments of broken bones, by lesions not directly injuring the nerve trunk but causing the formation of scar tissue which subsequently compresses the nerve and by missiles passing through the nerve either severing it partially or completely.

During my service in the Base Hospital at Camp Sherman it was my fortune to receive fifty-five cases of nerve injury, many complicated by fractures and by wounds of the soft parts that were still suppurating. Major R. H. Berge of Cleveland was assigned special charge of these cases and he had progressed far in their classification and had a large number of them prepared for operation when he was ordered to Base Hospital at Camp Mead to act as Chief of the Surgical Service there. Before his transfer he operated upon two cases of drop foot, due to division of the great sciatic and external popliteal respectively. I had followed his investigation closely and inherited the data that he had prepared and after the departure of Major Berge assumed personal charge of the nerve cases. Ambulatory cases reported each day to the treatment rooms of the reconstruction department and were massaged and treated with electricity when such treatment was considered advisable. A good many of them improved under such treatment and unless positive evidence of nerve division existed operative procedure was deferred until the results of such treatment were observed. The advice of the head of the reconstruction department was followed as a rule in determining time of operation. Before the transfer of these cases fifteen operations for nerve suture were performed including four of the great sciatic, two musculo spiral, three ulnars, three external popliteal, one brachial plexus and two medians. It was found possible in all cases to approximate the divided ends by flexing the joints. In the case of the great sciatic it is necessary to flex the knee and extend the thigh and to maintain this position, we first made use of a Thomas splint, bent at the knee, to give required flexion and after patient was returned to bed the projecting end of splint was permitted to rest on the floor beside the bed. Later we used a posterior splint of metal, with a foot piece, that could be bent at the knee in any desired position and found it to be in every way satisfactory. During the time these cases were under our observation no material change in the condition of the limbs were noted except that in some cases anesthetic areas began to clear up and there was evident improvement in the nutrition. No early improvement in function is to be anticipated after suture of a divided nerve, neither is one to be discouraged if improvement of function is not noted for many months. These cases were all transferred to G. H. No. 28 during April 1919, together with all of the remaining cases of nerve injury and it would be very interesting if the end results in all cases could be reported. I am able to furnish this report in only one instance of the fifteen nerve sutures here reported. A year following the operation I received a lettr from Capt. C. D. Hauser, of Youngstown, Ohio, who was one of the supervisors in our surgical service, in which he states: "This morning I found in the City Hospital one of the cases in which you sutured the great sciatic more than a year ago at Camp Sherman. Thinking you would be interested I examined the limb and find that the foot-drop has been relieved although the strength of the flexor muscles is not fully restored. He states that he first became able to flex the foot just one year following the operation."

Cases in which the nerve is compressed by scar tissue show improvement of function much earlier than do the nerve suture cases. One case at Camp Sherman illustrated that point. It was a case of fracture of the humerus produced by an accident in the camp during the summer of 1918. The bone failed to unite and was treated by bone transplant. The nerve was not injured at the operation but wrist drop developed subsequently, denoting involvement of the musculo spiral. Operation was done, the nerve located just above the elbow and followed

up through the scar tissue. It was noted that the nerve was larger than normal below the scar and very small through the scar tissue but when released quickly became restored to normal size throughout. It occurred to us that if left in the scar tissue it would again suffer from compression and we split a muscle and placed the nerve in a new bed surrounded by muscle fibres. Restoration of function occurred in this case rapidly and the wrist drop was entirely relieved at the end of six weeks. Since leaving the army service I have had opportunity to ob serve several cases of nerve injury among the former service men. One case of reported suture of the ulnar nerve at Camp Grant shows no improvement at the present time. Another case of division of the great sciatic presents interesting features and will be briefly reported.

"Rottman, Samuel C.—Private Co. L., 26th Infantry—age in 1918, 19, shot by M. G. B. July 19, 1918, point of entrance outer side left thigh—two inches below lower border trachanter major—exit lower edge of buttocks ½ inch from anus. A longitudinal scar appears in posterior surface of thigh and extending well up on the buttocks. This marks an incision that the patient states was made at General Hospital No. 3, Rahway, N. J., in an attempt to suture the nerve. The patient was informed that the nerve could not be found. I had him admitted to the Hospital on November 19, 1919 and cut down upon the nerve. The upper end was drawn well up under the glutei muscles and was located with some difficulty. A large neuroma had developed upon the upper end so that two inches had to be removed before normal appearing nerve tissue presented. The pseudo-neuroma in lower end was not so large and it was possible after moderate tension to bring the ends together with extension of the thigh and flexion of the knee. Healing occurred normally although the patient had to be rescued from the burning hospital on December 1, by means of a ladder placed at his window. On account of the high and complete division of this nerve there was marked paralysis of his leg. The muscles of the calf had atrophied to such an extent that the leg presented a pipe stem appearance. The young man has continued in attendance at the Ferris Institute and therefore I have had opportunity to keep him under observation. During the year following suture some improvement in nutrition took place and a tendency to ulceration of the toes and foot disappeared—no improvement took place in function nor in sensory paralysis. In March of this year, however, he came to me much elated and I found that a considerable development of the muscles of the calf had taken place and that he could voluntarily move many of these muscles and could raise his foot very slightly. Since that time there has been gradual improvement in function and I feel convinced that eventually complete restoration will take place. In this case suture was performed sixteen months after the nerve was divided and the first improvement in function was noted sixteen months following suture.

I have had one other case of nerve injury to treat since my return from army service. A friend had sustained a fracture of the upper end of the fibula and found that the styloid process had been broken off and displaced and that it had not become united to the main shaft. The external popliteal nerve was located, dissected out of its bed of scar tissue and the loose styloid process was removed. The nerve had not been divided and restoration of function took place very rapidly so that in a few months the drop foot had disappeared.

In the treatment of nerve injuries attention should be given to the joints and muscles and if a nerve is divided it should be sutured at the earliest practical moment. In the war zone most wounds suppurated and it was manifestly impossible, in nearly every case, to perform immediate suture. Then, the wounds were prone to active suppuration if they were reopened soon after healing had taken place, consequently much time elapsed before operative treatment of a divided nerve was undertaken. During this waiting period it was important that joints be kept supple, and the patients were instructed to many times a day move the paralyzed parts freely to their full range.

In the cases of drop foot and drop wrist supports must be applied to hold up the hand or foot for if the paralyzed muscles are kept constantly on the stretch the chances of ultimate restoration of function are diminished.

In the actual performance of nerve suture great care is necessary. In the first place the fingers should never be permitted in the wound. Blunt dissection should be made until the nerve is found. This is not very difficult if the anatomy is fully understood by the operator

but if the nerve is completely divided the ends may have retracted to a great extent. One of my cases of divided great sciatic illustrated this point. The nerve had been completely divided by the passage of a machine gun bullet. The incision was made over the course of the nerve so that the middle of the incision was at right angles to a line passing from the point of entrance to the point of exit of the bullet. The nerve was located at once but was found apparently uninjured, and the point of division was ultimately located six inches below the lower end of the original incision. When the ends are located they should be raised by the bulbons ends and traction made to approximate them. The nerve stretching should now be done and the nerves will be found responsive to steady gentle traction. Joints should be flexed until the ends of the nerve can be brought together. Sometimes it is necessary to dislocate the nerve from its bed and lay it in a shorter line. Progressive transverse cuts are now made across the nerve ends until in cross section nothing but nerve fibres are seen. If every particle of fibrous tissue is not removed the operation will fail. The axis cylinders coming from above must have free entry into the nerve below.

When the ends are prepared they are brought into apposition with greatest care. There is difference of opinion concerning the best suture material. Moyniham recommends that only the finest cat gut be used and that only the sheath should be included in the suture. Others recommend in the larger nerves the passage of a mattress suture by means of a dull needle insinuating the needle between the bundles of axis cylinders. In any event the cylinders themselves must not be punctured. I have used both methods and have had good results in each. The smaller nerves have been united by interrupted sutures of either fine silk or cat gut through sheath only. In some of the great sciatic cases when there was considerable tension on the nerve I passed the mattress suture of cat gut and sewed the sheath with fine silk. This was the method followed in the case sutured sixteen months following injury. Care must be taken to avoid axial rotation. The nerve having been sutured care should be taken to lay it along a path of uninjured tissues. Regarding after treatment there is one point in which I cannot agree with Moynihan. He recommends that the posture adopted to permit the ends to approximate be maintained for six weeks and then that very moderate attempts be made to extend the limb. We started our work with the idea that such procedure would be necessary and also we were under the impression that the operation would be followed by severe pain. We found such was not the case. The only complaint made by the patients was on account of the posture imposed. No nerve pain properly speaking was complained of at all. The complaint was bitter, especially concerning the position of the leg when the knee was fully flexed and the thigh extended. The plan finally adopted was to remove the splints on the third day and permit the patient to straighten the limb all that he could by voluntary use of the muscles without producing pain and usually by this means the limb would straighten completely in a week or ten days. On each occasion the splint was reapplied to maintain the limb at rest in the new position. In the case of the sciatic a support to the foot was kept in use indefinitely and in case of the musculo-spiral the Jones Cock Up splint was used for a long time. In two weeks following operation gentle massage treatment was resumed. Electrical treatment should be given with great care and on no account should the muscles be over stimulated.

In published records it appears that the duration of the disability is not a bar to operation. One case being reported by Moynihan in which the ulnar nerve was sutured fifteen years after it was cut across and signs of returning function were seen in about four months.

If indications of returning function are not noted in three or four months I think it would be worth while to cut down on the nerve and find out if union had occurred and if so whether the occurrence of adhesions were interfering with function or not. I have not noted that this has as yet been done but believe it should be adopted by the Public Health Service in the case of disabled soldiers who show no sign of re-establishment of function.

Minutes of the Fifty-sixth Annual Meeting of the Michigan State Medical Society at Bay City May 24, 25, 26, 1921

COUNCIL MEETINGS.

The first session of the Council was held at 5:00 p. m. May 24, 1921 at the home of Councillor McLurg. Present—Councillors Kay, Seeley, Dodge, Southworth, Toles, DuBois, Keifer, Jackson, Parks, Randall, President McLean and the Secretary.

The annual report of the Council to the House of Delegates was read and discussed. The present status and welfare of our organization was considered in a general discussion. Adjourned at 7:30 p. m.

SECOND SESSION.

The Second Session of the Council was held in the Ordinary of the Wenonah Hotel on May 25th, 1921, at noon. Present—Councillors Kay, Keifer, DuBois, Seeley, Randall, Toles, Buckland, Dodge, Jackson, Southworth, the Secretary.

In compliance with the request from the House of Delegates, on motion of Dr. Seeley, supported by Dr. Southworth, the Secretary was directed to draw orders for railway fare and $10 per diem for delegates attending the American Medical Association. Carried. Adjourned.

THIRD SESSION.

The third session of the Council was held on May 26, 1921 in the Ordinary of the Wenonah Hotel and was a joint session with the County Secretaries. Fourteen County Secretaries were present. Each secretary was called upon for a report of the condition, difficulties and activties of their respective societies. During the meeting a re-organization of the County Secretaries was accomplished and Dr. F. C. Kinsey of Kent was elected President and Dr. W. H. Marshall of Flint, Secretary. Plans were outlined for the year's work. Members of the Council engaged in the discussion. The Secretary was authorized to arrange for a similar meeting next year. The Secretaries then withdrew, the Council convening in annual session.

On motion of Councillor DuBois—Southworth, the Council approved the personnel of the Legislative Committee appointed by the President.

On motion of Councillor Dodge—Toles, $200 was appropriated for the Committee on Regional Clinics.

Councillor Southworth nominated Councillor DuBois as Chairman. Supported by Dr. Toles. The Secretary was instructed to cast the ballot and Dr. DuBois was declared elected Chairman of the Council.

On motion of Dr. Dodge—Jackson, the Secretary was instructed to cast the ballot for Dr. Seeley as Vice-Chairman. The Secretary did so cast and Dr. Seeley was declared elected Vice-Chairman.

On motion of Dr. DuBois—Seeley, Councillors Dodge, Jackson and Walker were selected as the Council members on the Fee Schedule Committee of the State Society.

The Council adjourned to meet in mid-winter session in Detroit in January at the call of the Chairman.

W. J. Kay, Chairman.
F. C. Warnshuis, Secretary.

PROCEEDINGS OF THE HOUSE OF DELEGATES OF THE MICHIGAN STATE MEDICAL SOCIETY.

Bay City, 1921.

FIRST DAY.

TUESDAY, MAY 24

The first session of the House of Delegates of the 56th Annual Meeting of the Michigan State Medical Society was called to order in the Masonic Temple, Bay City, at 7:45 p. m., Tuesday, May 24, 1921, by the President, Dr. Angus McLean, Detroit.

REPORT OF COMMITTEE ON CREDENTIALS

In the absence of the Chairman of this Committee the report was given by Dr. C. H. Baker, Bay City, who stated that there were twenty-five members, which constituted a quorum.

The President thereupon declared the House ready for the transaction of business.

ROLL CALL

The Secretary called the roll.

APPOINTMENT OF COMMITTEES

ELECTION OF NOMINATING COMMITTEE

Dr. R. L. Clark of Wayne nominated Dr. J. N. Bell of Wayne as Chairman of this Committee; Dr. C. C. Slemmons, of Kent nominated Dr. C. S. Gorsline of Calhoun; Dr. J. D. Brook, of Kent,

nominated Dr. R. H. Nichols of Ottawa; Dr. Frank B. Walker, of Wayne, nominated Dr. Carl Moll of Genesee; Dr. H. W. Peirce, of Wayne, nominated Dr. O. L. Ricker, of Tri.

Dr. W. J. Wilson of Wayne moved that the nominations be closed and that the Secretary be instructed to cast the unanimous ballot of the House for these five nominees. Seconded by several and carried.

The Secretary reported the ballot cast and the President declared these gentlemen duly elected.

The Secretary then read the duties of the Nominating Committee.

APPOINTMENT OF BUSINESS COMMITTEE

The President appointed the following Committee to take care of the business of the House:

Dr. R. L. Clark, Wayne, Chairman.
Dr. A. F. Fisher, Houghton.
Dr. C. C. Clancy, St. Clair.
Dr. A. V. Wenger, Kent.
Dr. Chas. B. Tweedale, Cheboygan.

ANNUAL REPORT OF THE COUNCIL

Dr. W. J. Kay, Chairman, submitted the following report: The Council submits to the House of Delegates the following as its Annual Report, and urgently recommends that you so direct your deliberations as will witness a definite pronouncement upon the following matters of vital importance in our inter-relationship with state, community and individual.

Fees: Much has and is being said both professionally and from our lay people, as also the press, regarding certain charges that have been made for professional services. The Council is not disposed to enter into any detailed discussion of the basic principles that enter into this phase of our professional remuneration. The Council feels and so recommends that the House of Delegates take a definite stand and formulate a pronouncement that will establish a maximum limit for professional services rendered. Such a maximum schedule to serve as a basic figure for determining a just fee in consideration of the patient's financial status and independence.

Legislative Activity: The story of our last Legislature is generally known. Its enactments or near enactments reveal the changing sentiment that is being expressed in regard to our profession. The Council feels that this should receive considerate attention from your body. The subject is one that demands the formulation of a plan of campaign that will secure a just recognition of our inherent rights by our representatives and legislators, State and National. The Council, mindful of our past experiences, recommends that such organizational activity be not deferred. To that end we ask that the Annual Address of our President be received as our recommendation upon this subject.

Society Work: The numerical strength and activity of our Society is clearly set forth in the Secretary's Annual Report which was published in the February, 1921, issue of the Journal. The auditor's certificate of our funds is attached hereto.

Some complaint has been raised in a very few isolated instances regarding the increased amount of dues. Reference to this report will clearly demonstrate the wisdom of increasing the dues and financial obligations of the Society.

Clinical Teams: The Council recognizes the good work accomplished by our Clinical Teams. It feels that this work should be developed to a still greater degree. It believes that financial support should be given to our small societies so as to bring the benefit of these teams to their very doors. Your recommendations in this respect are requested.

Respectfully submitted:
W. J. Kay, Chairman.

This report was referred to the Business Committee.

REPORTS OF COMMITTEES

COMMITTEE ON INDUSTRIAL AND CIVIC RELATIONS

Dr. G. E. Frothingham, Chairman, Detroit, presented the following report:

To the House of Delegates,
Michigan State Medical Society.
Gentlemen:

When your Committee on Civic and Industrial Relations first took up its work in 1919-20, it found that a question of vital importance to the people of this country and to the Medical Profession was being fought out in several states.

Your Committee found that a number of men of the medical profession, high in official circles of the American Medical Association and backed by all the power and prestige of the American Medical Journal, had joined hands with a group of "Citizens of the World," styling themselves "The American Association for Labor Legislation" and were trying to introduce into this country that well touted German Brand of Compulsory Health Insurance and reduce a free people to the condition of serfs, personally conducted from the cradle to the grave, and make of the great and honorable profession of medicine, a badly regulated State business, subject to the whim of every passing political breeze, the football and plaything of every politician of high or low degree.

Your Committee investigated carefully. It sent a letter of inquiry to the Surgeon General of the United States on this question of Compulsory Health Insurance. The answer came from the Executive Secretary of the American Association for Labor Legislation, the foremost proponent of Compulsory Health Insurance in the country and this answer contained an attack on an official of New York who had the nerve and the courage to take a stand against this measure.

It found that names, high on official lists of the A. M. A., stood equally high on the letter heads of the American Association for Labor Legislation. It found that the Council on Health and Public Instruction of the A. M. A. had employed an expert to study and report on Compulsory Health Insurance and this expert, who was to report, had been an ardent advocate and apostle of Compulsory Health Insurance for a dozen years. It found that when the medical profession of California was fighting this measure

with all their might, this expert, paid by their own money, employed by their own National Association was stumping the State against them and using all the glamour of his reputation as the expert of the A. M. A. to help defeat the rank and file. The excuse is made by those, responsible for the employment of this one sided expert, that he was not in the employ of the Association, when he stumped California but your Committee have seen no public repudiation and no public criticism by the A. M. A. of his action. The people of California rallied to the support of the rank and file of the medical profession and voted Compulsory Health Insurance down by a vote of three to one.

This is but one instance that your Committee can cite, where the men whom the profession had placed in power, were aiding and abetting the efforts of the American Association for Labor Legislation to socialize the medical profession.

Your Committee cites Dr. F. R. Green, Secretary of the Council on Health and Public Instruction of the A.M.A., as authority for the statement that an "OVERWHELMING MAJORITY" of the members of the profession are against this measure and yet this Council sends out literature, compiled by the prejudiced expert and his sponsor and the rank and file pay the bills.

Your Committee tried to learn why a vote on this question had never been taken in the National House of Delegates and found that after years of intensive study, after the reports of the "expert," the Council on Health and Public Instruction were always counselling delay and asking for more time.

Your Committee decided to conduct an educational campaign and state the facts to the members of the profession. The result was that county after county swung into line, denouncing the measure and calling on our delegates to the National House of Delegates to take a stand against Compulsory Health Insurance and demand a vote on the question. At New Orleans, Michigan stood shoulder to shoulder with Illinois and Indiana in backing up New York. Attempts were made to sidetrack the isue, but when it was found that the Council on Health and Public Instruction were still not ready to submit a report, a resolution condemning Compulsory Health Insurance was placed before the House of Delegates and carried almost unanimously. When that vote was counted, the De-Luxe Pullman of Compulsory Health Insurance had been ditched and the gravel trains were on the main track.

The voice of the people of the profession had been heard and the tones were sure and unwavering. Your Committee waited to see what the leaders who sponsored the disgraced measure would do. They switched at once. The flag of Compulsory Health Insurance was lowered" and in its place flew one of motley with various mottoes—"State Medicine"—"Community Health Centers" — "Group Medicine"— "Diagnostic Clinics," etc. In 1919-20 we fought an open enemy. In 1920-21 we fought the same old enemy under various names.

But your Committee found that whatever the name might be, the principle of STATE DOMINATION was always there. One advocate would talk of the wonders of "State Medicine" and when pressed as to who would control would talk vaguely of some Super-Human State Board of Laymen. Another would talk of the beauties of teaching the country physician his business by means of perambulating "Diagnostic Clinics" which would tell the physician what might be the matter and then leave him to work out his own salvation. Another would talk of the home keeping qualities of "Community Health Centers" which would bring the youth of both sexes back to the farm, if only a Health Center were established and of course the proper control of this must be in the hands of the State University. But through it all ran the red thread of socialism of medicine—the reduction of the independent practitioner to the ranks of the hired man, to be buffeted about by every political breeze—the domination of the many by the few and always the many to pay the bill.

Your Committee has kept up its campaign for 1920-21. It has kept in close touch with men from other states who are fighting this battle. It has placed the facts before the profession and it recognizes the fact that the greatest danger to the welfare of the people and of the medical profession to-day lies in leaders of the A. M. A. backed by its powerful Journal for which the rank and file pay.

"When the A. M. A. speaks, it is for the members of the profession, say the lay newspaper and the lay thinker. It must be right or the A. M. A. would not advocate it. The profession must want it, or their leaders would not dare defy the rank and file of such an intelligent body of men year after year." The issue is clearly drawn, "Shall the majority rule or shall a small minority be permitted to ruin a great profession?"

The issue is as clearly drawn as it was in the famous Boston Tea Party. Are we to be taxed and misrepresented? Are the "OVERWHELMING MAJORITY" to be ruled, dominated and flouted by this intrenched minority? Is the protest of Michigan's largest County Medical Society to be ignored, when it protests against the raise in dues of the A. M. A. and shows conclusively that an Association with assets of $755,000—with debts of less than $7,000—with an income from its Journal of $797,000 with a net income, with all depreciation taken off in such a year as 1919—with a falling market for supplies of $179,000, cannot possibly in honor and justice ask of an overtaxed profession (just returning from a war to practices far too often demoralized) an increase in its yearly income of $40,000.

Yet this was done. Wayne County protested and wired its protest to all those in authority and received no reply.

This Committee recommends that the delegates to the National House of Delegates of the A.M.A. to be held in Boston in June be thoroughly informed of Michigan's attitude on the subject of minority rule and that the following resolution on the question of the socialization of medicine, which has already been passed by Illinois and New York, be accepted and adopted.

Resolved—"That the Medical Society of the State of Michigan is emphatically opposed to

State Medicine" and to any scheme for "Health Centers," "Group Medicine" and "Diagnostic Clinics," either wholly or partly controlled, operated or subsidized by the State or National Government; and that the Delegates from this Society to the American Medical Association be and are hereby instructed to present this resolution to the House of Delegates of the American Medical Association at its coming meeting in June and to use every possible means to secure its adoption."

All of which is respectfully submitted;

George E. Frothingham,
R. H. Nichols,
F. B. Walker.

COMMITTEE ON PUBLIC HEALTH EDUCATION

The Secretary reported that this report was published in full in the Annual Program. The President ordered it referred to the Business Committee.

REPORT OF COMMITTEE ON MEDICAL EDUCATION.

Your Committee in its report last year reviewed and commented upon the advance made in medical educational standards in the United States, including Michigan, during the past two decades, and in which the opinion was expressed that the present standards involving two years of selected work in literary and scientific colleges in addition to the high school diploma, covering preliminary education, four years of medical course in a Group 1 or "A" college, followed by an interne hospital year had reached the limit of a national minimum standard of medical education. The above requirements for graduation and licensure are the minimum standards advocated as ideal in 1906 by the Council on Medical Education of the American Medical Association. The ideal standard having been attained in terms of courses and time at this date, there only remains in the way of advances the making of this national standard efficient and practical to the utmost degree.

There is much yet to be accomplished in the matter of the hospital interne year towards making it an efficient and practical post-graduate medical course. A great deal of hospital inspection, investigation and committee work has been done by state boards independently and through their National Federation, National Medical Associations, the American College of Surgeons, and the Council on Medical Education and Hospitalization of the American Medical Association. The latter association has published recently a list of accredited hospitals approved for internships. This list is as yet incomplete and will be added to from time to time. The activities of the above bodies (the work of the Pennsylvania Bureau of Medical Education and Licensure being most noteworthy) have developed a common viewpoint in regard to the kind and measure of training received by internes in the past and what is expected and will be required from accredited hospitals in the future in the matter of interne training.

The following outline of basic principles has been suggested as entering into the term "standardized hospitals" in their relation to the training of internes:

First. No hospital has an inherent right to the service of an interne.

Second. The rights of the public are paramount to the interests of any individual hospital or any individual community.

Third. The consideration of the interests of the medical profession as a profession are subordinate to the desired result in the training of an interne, viz., as nearly as possible perfect treatment of the patients and the proper education of the future practitioner.

Fourth. That the quality of educational service given to an interne is a perfect index of the quality of the service furnished to the public.

Fifth. A minimum approved hospital service divided into four divisions, i. e., the medical, the surgical, the obstetrical, and the laboratories.

Sixth. The members of the hospital staff must have not only the qualifications for successful practice, but the additional qualification of being able to properly and efficiently teach internes, and to give the necessary service and time in connection therewith.

In the past internes have in many instances in their service in hospitals acted as assistant physicians and surgeons, rather than as post graduate students. They could have obtained the same experience that they received in the hospitals in private practice with the added advantages of initiative and self-reliance in such practice. All hospitals which can not reasonably meet the above fundamental requirements of hospital standardization can not hope to obtain recognition from state or national bodies.

Reference was made in the Committee's report of 1920 to the claims advanced by individuals that the standards attained and in force at that date were resulting in the depletion of the normal number of practitioners in country places and districts. The same condition exists today in Michigan—the gradual migration of the country doctor to centers of large population and the recent graduate settling in cities in preference, as formerly, to beginning practice in country districts. It has been claimed that the reason for this preference to settle in cities is from the fact that the practitioner has ready access to laboratories, hospitals and other aids and conveniences involving the up-to-date practice of his profession. To a limited percentage this may be true, but a more material reason for this preference lies in the fact that very much higher fees are obtained in a city practice as compared with the rewards possible in the country, and, in addition, the physical effort in connection with practice is reduced to a minimum. It is, also, possible for the practitioner to share his anxieties and difficulties met with from day to day with his fellow practitioners, and which is not always possible in the country. Again, an error of practice in the country is largely advertised and commented upon, while the city physician can escape this drawback through the want of communication involving his friends, enemies and clientele. Methods of practice are possible in a city which if followed in country districts would result in the professional undoing of the physician. Again, the claim that the gradual elimination of the country doctor is due to high standards resulting in the falling off of medical students entering colleges does not seem to have any weight, from the fact that matriculations in medical colleges in Michigan during the past year have increased to the extent of approximately 100 per cent. This condition involving new students also exists in the other states of the Union. In the face of this very large increase of medical students the diminution of the country physician can hardly be laid to increased standards, but rather in spite of such increased standards.

Dean Victor C. Vaughan.

The most important event in the medical educational world in Michigan this year is the resignation of Dr. Victor C. Vaughan, Dean of the University of Michigan Medical School since 1890. His was an exceptionally meritorious and successful service, covering over thirty years, during which period the medical course has advanced from a high school entrance requirement and a two year medical course of six months in each year to a minimum of a recognized B. S. degree and a four year medical course of nine months (in each year), an increase of over 350 per cent in the requirement for the M. D. degree since 1890. The above improvement, of course, involves better methods of teaching, laboratories and research work. The void created through Dr. Vaughan's retirement will be most difficult to fill. He has justly obtained an international as well as a national reputation, not only as an administrator, but, in addition, as a teacher and an authority in his specialities of psysiological and pathological chemistry, hygiene and public health. In connection with his work in these branches, he has done a very great amount of original research, which has made his name famous among the scientists of the world, and, has brought honor to his state and to his university.

Dr. Vaughan's professional activities, apart from his duties at the University of Michigan, have been of such variety and importance that it is only possible to mention some of the more important ones in this report. He was active and saw service in the Santiago Campaign, 1898, as Major and Surgeon Thirty-third Michigan Vol. Inf. Subsequently through appointment by the government, he wrote the Medical History of the Spanish American War. This is regarded as a classic from the standpoint of its matter involving communicable diseases of that period. During the late war, he was commissioned Colonel in the M. C. U. S .A., and was in charge of communicable diseases. He was awarded the D. S. M. for notable service. For many years, Dr. Vaughan was an active and influential member of the Council on Medical Education of American Medical Association, and in 1914 was elected President of this body, the highest honor in the gift of the American profession. He has always been most active and helpful in all professional matters in Michigan. He was President of the State Medical Society in 1895, and member of the State Board of Health and its president during several terms. He has always been active in medical legislation in Michigan, and the Medical Board and medical laws of the state owe much to him for their efficiency through his advice and support. Since its creation, Dr. Vaughan has been a member of and an examiner for the National Board of Medical Examiners. He is a member of several American and foreign scientific bodies, and is the author of a number of standard works involving his specialities.

It is to be hoped that Dr. Vaughan may be spared to the profession in Michigan for many years, and that the period of his well earned rest and retirement from active and official duties may bring to him the peace and blessings he so richly deserves.

Guy L. Connor, Chairman.

COMMITTEE ON TUBERCULOSIS

REPORT OF COMMITTEE ON TUBERCULOSIS.

Your committee begs to report a continued and intelligent interest in the campaign against tuberculosis. So far as our profession is concerned, the activities are chiefly three-fold:

1. Modern studies in tuberculosis, keeping up to date on the subject.
2. Provision of adequate sanatorium accomodations for the cases needing such treatment.
3. Education of public to seek medical advice early in case of lung disease.

In regard to the first, the members of this committee stand ready at any time to provide a program on this subject for any medical society in the State. There is also a team organized by the State Society, offering both clinics and papers on the medical and surgical treatment of tuberculosis. It would seem to this committee that each County Society should have at least one meeting each year devoted to some phase of this subject.

Provision is gradually being made in the State for the accomodation of patients needing sanatorium treatment. There is no doubt that for all cases except the favored wealthy few, good sanatorium care in this climate is the most desirable thing. The migration of the consumptive is a National tragedy which should be stopped. Again here this committee wishes to offer its services to any society seeking to agitate the question of increased community facilities for the care of the tuberculous.

The education of the public is a slow task. This committee believes that anti-tuberculosis societies everywhere should have the support of the medical profession for the simple reason that such societies always need professional direction in order to bring the best results. Public lectures on this as well as other medical subjects of general interest are worthy of our time and attention. In this particular it may be pointed out that the agitation in this Society during the last year for the education of the public in regard to medical matters has been done for several years in tuberculosis. As a result the public is well informed on the attitude of our profession towards this disease.

Respectfully submitted;

Herbert M. Rich, Chairman.

COMMITTEE ON INSURANCE

No report presented at this time.

COMMITTEE ON VENEREAL PROPHYLAXIS

The Secretary announced that this report was published in full in the Annual Program. The President ordered it referred to the Business Committee.

VENEREAL PROPHYLAXIS.

As Chairman of the Venereal Prophylaxis Committee of the Michigan Medical Society, I submit a brief report of the progress of Venereal Disease control work as carried on during the past year in the State. The following information is taken from the files of the Michigan Department of Health:

From July, 1919, to July 1920, 19,656 cases of Venereal Disease were reported to the Michigan Department of Health, as follows:

Gonorrhea	10,998
Syphilis	8,365
Chancroid	293

During this same time 624 of these cases have been hospitalized at the expense of the State. One hundred thirty-eight beds in five hospitals have been available for these patients, where not only uniform treatment for Venereal Disease has been given, but treatment for any other existing disease, many receiving surgical care and also a mental examination.

Ten clinics diagnosed and treated 22,829 cases and provided after-treatment for discharged hospital cases.

Beginning October 1, 1919, when the law requiring druggists to report Venereal Disease prescriptions went into effect, to July 1, 1920, 1,110 druggists have reported 22,352 prescriptions. An amendment to the above bill was passed by the 1920-21 legislature, as per attached copy.

All States having Venereal Disease Control laws have given satisfactory co-operation.

The educational work has been carried on in co-operation with the Bureau of Education:

Number of lectures		413
Total attendance		48,730
	Girls 13,196	
	Boys 7,352	
	Adults 28,182	
Number of films showing (How Life Begins)		181
Total attendance		46,496
	Girls 37,382	
	Boys 9,114	
Total number meetings		594
Total attendance		95,226
Number of high schools visited by lecturers		82
Pamphlets distributed		109,110
Number days exhibits shown		191
Estimated total attendance		203,000
Framed placards purchased		1,000
Posted in stations and hotels		250

It seems to members of this committee that if the Venereal Disease campaign is to give continued results, great stress must be laid upon the educational work, especially in high school for both boys and girls.

The attention of the physicians of the State is invited to a resolution drafted by health officers representing different States, including the chairman of this committee. Briefly this resolution reads:

"RESOLVED: That while the United States Public Health Service and the State Boards of Health recognize their public duty to see that every victim of a contagious disease receives adequate treatment for his own and the public's safety, they have no intention of supplanting effective private effort in this field."

This refers to the fact that it is not the intention of the United States Public Health Service to interfere with physicians' private cases.

This committee appreciates how much of the success of the campaign is due to the cordial support of the physicians, and believes the results obtained merit the continuing of that support.

Respectfully submitted,

G. M. Byington, Chairman,
A. H. Rockwell, M.D.,
George Sewell, M.D.

DELEGATES TO THE A. M. A.

Dr. A. W. Hornbogen, Marquette, stated that as the 1920 meeting of the A. M. A. occurred before the meeting of the Michigan State Society the report was submitted at that time, and there was nothing further to report at present.

COMMITTEE ON AMENDMENTS TO CONSTITUTION AND BY-LAWS

The Secretary announced that this report was published in the Annual Program. Dr. W. T. Dodge, moved that the report as published be referred to the regular Business Committee. Seconded and so ordered.

REPORT OF COMMITTEE ON AMENDMENTS.

Your committee begs to report that during the year it has given continued thought to the task assigned to it. It has prepared a draft of the Constitution and By-Laws which includes a number of revisions and amendments. Your Committee, however, is not prepared to submit this draft to the House of Delegates at this session for the following reasons:

1. The Committee recognizes that any change in our present Constitution and By-Laws should receive deliberate consideration by the House of Delegates at a special session. Time for such a session is not available during this meeting.

2. The Committee feels that if our Constitution and By-Laws are to be revised throughout, suggestions and recommendations should come from our component societies. Such opportunity has not been given.

3. The Committee realizes that a general revision should include provision for meeting our changing relations with the public and its institutions. The Committee feels the need of more time to formulate articles bearing upon this relationship.

Your Committee therefore recommends that:

1. This report of progress be accepted.

2. That the Committee be continued for another year.

3. That the House of Delegates provide for a special session for the consideration of this report during our 1922 meeting.

4. That the Committee be authorized to place sections of its reports before County Societies and thus secure their opinions and recommendations.

5. That it publish its proposed report in the Journal two months before our next Annual Meeting and that this report be acted upon at a special session of our House of Delegates in 1922.

Your Committee further recommends in connection with the amendments presented by Doctors Brooks and Wessinger at the last session of the House in 1920 that these amendments be continued to lie on the table. The reason therefor is that they should and would most properly come up for consideration at the time a general revision and amending of our Constitution and By-Laws is accomplished by the proposed special session of the House of Delegates in 1922.

Respectfully submitted,

W. T. Dodge,
C. E. Boys,
F. C. Warnshuis.

COMMITTEE ON REGIONAL CLINICS

The Secretary reported that this report was published in full in the Annual Program. The President ordered it referred to the Business Committee.

REGIONAL CLINICS.

To the House of Delegates:

Your committee appointed to arrange for Regional Clinics, beg to submit the following report:

Shortly after receiving the appointment, the Committee met and canvassed the situation as carefully as possible. An attempt was made to consider the needs of the profession in a general way, giving particular consideration to the general practitioner situated at some distance from the larger medical centers.

The general subjects which the Committee felt should receive attention were as follows: Tuberculosis, Neuro-psychiatry, Gastro-intestinal and Gall Bladder Diseases, Dermatology and Syphilis, Gynecology, Proctology, Fractures and Emergencies, Orthopedics, Pneumonia and Empyema, Endocrinology, Cardio-renal Diseases, and Focal Infections.

For the discussion of these subjects, it was deemed advisable to arrange for clinical groups, the personnel of the group to be determined by a physician who was specializing in this particular field of medicine and who would act as supervisor or captain. Following out this plan, seventeen teams were organized, two groups being arranged for each of the more important subjects where it was felt that the possible amount of work might be too great for one group.

Immediately on the formation of the groups, the Secretary of the Society communicated with the County Secretaries, outlining the plan and stating that he would be very glad to make bookings on such dates as might suit their convenience. In the November, 1920, issue of the Journal, an announcement (copy attached) was made explaining to the profession this plan in detail, and soliciting the cooperation of the County Societies. At a recent meeting of the Committee, the Secretary reported that sixteen of the teams arranged for had perfected their organization and were in a position to accept appointments; that twelve of the teams had received one or more calls.

The reports received by the Secretary from Societies where teams had filled engagements, were most encouraging and enthusiastic. Practically the only objections offered were: First, the matter of expense; Second, the inability to provide satisfactory clinical material; Third, the fact that in certain instances the clinical material had not been sufficiently studied to be satisfactorily presented.

In times past, the programs of many of the County Societies have been arranged with but little, if any, expense. The willingness of the specialist from the larger centers, frequently from outside the state, to address the County Medical Societies and to meet their own expenses has established a precedent that has somewhat tended to embarrass the present plan of Regional Clinics. The new arrangement, whereby the railroad fare and hotel accommodations of a team numbering three to six people, necessitated so great an outlay as in some instances to demand a special assessment on the members, as the condition of their treasury would not permit of this expense. There is no question but that the calls for these teams would have been quite general had it not been for this consideration.

Relative to the matter of clinical material, the difficulty has usually been that the members of the Society were not able to provide suitable cases and in most instances resulted from their not having their attention called to the necessity in a personal way. The group Captains have, in the majority of cases,

arranged for one of their party to visit the place of meeting the day previous, to work up the material in such a way as would allow of satisfactory demonstration. In instances where this has not been done, their demonstration of cases has at times been somewhat tedious to their audience. The careful preparation of cases has been of particular value to the Societies in stimulating their interest in more careful study and the use of proper laboratory and X-ray procedure. Where suitable material has been provided and the Captain has arranged for proper study of the case, the meetings have always proved to be of profit and the work has been received very enthusiastically.

The Committee, after corresponding with the different group Captains and obtaining their opinion relative to the matter, has no hesitancy in stating that there is a great need for this type of work, and we are of the opinion that nothing could be done which would more satisfactorily improve the standard of medical practice in the state at large. The inability of the general practitioner to leave his practice at frequent intervals to take post-graduate work, both because of the expense involved as well as the embarrassment to his clientele, is generally recognized. The Regional Clinics furnish him an opportunity for medical instruction with demonstration of the latest methods in the art of diagnosis and treatment at the very minimum of expense. His attention is so very forcibly called to the value of laboratory procedure that the establishment of laboratories, properly equipped and in charge of a technician available to the country practitioner, will, we believe, in many cases be provided. This should receive the support of the profession generally and mark a new era in the practice of medicine which would do much to establish the profession in the confidence of the laity at large.

The advisability of these Clinics continuing for more than one day should be given serious consideration. There is no question but that for the demonstration of clinical cases, one afternoon or evening is entirely too short a time to allow of their being studied and demonstrated in a satisfactory manner before the Societies.

In the event that the House of Delegates feel that it is wise to continue this arrangement, the Committee would recommend that it would probably be advisable for this specific purpose to combine two or three of the smaller Societies into a larger group. This would very greatly lessen the matter of expense and would require less sacrificing of time on the part of the physicians composing the Clinical Team.

E. L. Eggleston, Chairman.

COMMITTEE ON LEGISLATION

Dr. C. H. Baker, Bay City, reported that the Committee had no report to offer at this time. He did not know he was a member until very recently. As an unprejudiced outside observer he felt that the profession should take warning from the situation which developed so recently in regard to the chiropractic bill and prepare against such an action being repeated. That bill had failed to pass the State Legislature this time but would be brought up before the next Legislature and would be more difficult to control than it was this year unless the medical profession was prepared to meet the people who would fight it on the same grounds. One of the members of the Legislature had asked him why the profession did not fight the chiropractors, stating that they were present in Lansing with $500 and why were not the medical men there. He thought that was one way in which activities might be of use and offered this as a hint to the House of Delegates. (Laughter).

NEW BUSINESS

Dr. Carl Moll, Flint, presented the following petition for the creation of a Section on Pediatrics in the State Society (Petition to be filled in.) Referred to Business Committee.

Dr. Frank B. Walker, Detroit, introduced the following amendment: That Section 3, of Chapter IX of the By-Laws, relating to Standing Committees, which now reads: "The Committee on Public Policy and Legislation shall consist of three members appointed by the President," etc., be changed to read: The Committee on Public Policy and Legislation shall consist of five members appointed by the President and approved by the Council, representing the different portions of the State, the Northern, Southern, Western and Central portions. This Committee shall be authorized to instruct and represent this Society through its Chairman in co-operation with a similar Legislative Committee from the State Dental Society and the State Druggists Society in the interests of legislation concerning the three professions in the State of Michigan.

Referred to the Business Committee.

RESOLUTIONS

Dr. C. C. Slemons, Grand Rapids, introduced the following resolution: Inasmuch as the delegates to the A.M.A. give their entire time and attention to the business of the Michigan State Medical Society while in attendance at the American Medical Association meetings,

Therefore, Be it Resolved, that hotel expenses not exceeding $10 per day and railway fare to and from the meeting place be paid by the Society.

Dr. A. W. Hornbogen, Marquette, moved the adoption of this resolution. Seconded.

Dr. W. T. Dodge, Big Rapids, said that under the By-Laws such resolutions must be referred to the Council as that body alone could authorize the expenditure of money. He offered the following amendment: That the House of Delegates recommend to the Council that hotel expenses of $10 a day be allowed the delegates of the State Society.

Dr. Slemons accepted this amendment. Motion voted and carried.

MISCELLANEOUS BUSINESS

The President requested Dr. J. B. Kennedy of Detroit to tell the House of Delegates about the action of the State Senate.

Dr. J. B. Kennedy: Mr. President, Members of the House of Delegates: I have only recently arrived, I have just had my dinner, feel somewhat full and am not in the humor of talking—I mean full of dinner. (Laughter).

We of the Wayne County Legislative Committee did have some experience in helping to defeat the chiropractic bill and several other bills that were before the Legislature. I am somewhat sorry that you did not support the motion of the gentleman from Grand Rapids but just reverse the action and thank the Governor for what he did in preventing a revival of the bill after it had been once defeated and it was up again for reconsideration. Your President was present with myself and knows full well what the Governor's attitude was after a full explanation was made to him of what the meaning of the bill really was.

Now, gentlemen, I wonder how many of you really know just what that bill meant? I would like to have a show of hands. We are talking about a chiropractic bill that was defeated in the Senate. How many of you really know what the intent of that bill really was? How many of you know how dangerously near we came to having the chiropractors licensed to practice medicine and surgery in the State of Michigan? Do you know that Section 5 of the bill defined what chiropractics are? I venture that not more than one dozen of you know that Section 5 of that bill defined chiropractics as follows: "Chiropractic is declared to be a science which teaches that disease is the result of an anatomic disrelation." Now just think of it! (Laughter). Then there was a penal clause, Section 7, which set forth the penalty which should be fixed upon anyone who attempted to practice chiropractics in the State of Michigan, making this punishable by fine or imprisonment.

Now, gentlemen, just what is an "anatomic disrelation?" A sprained shoulder is an anatomic disrelation, a broken ankle is an anatomic disrelation, an enlarged prostate is an anatomic disrelation, an enlarged thyroid is an anatomic disrelation, and so on *ad infinitum*, and so under the chiropractic bill which passed the House unanimously and the Senate by a vote of 28 to 4 in favor, these two clauses were contained. There was also a section which defined what these chiropractors were to be educated in. They were to be educated in "chiropractic philosophy" (Laughter); there was something said about theology—I do not know what that meant—but it eliminated entirely bacteriology and the germ theory of disease.

Now after the bill had passed the House and had gone over to the Senate and was in the hands of the Senate Committee on Public Health we were assured that it probably would not be reported out of Committee. The Chairman of that Committee, however, went out of town and it was reported out. Then, as soon as it passed the Senate by a vote of 28 to 4 in favor of the bill Senator Johnson, who is sitting in the room, got active. (Applause). He telephoned to the Wayne County Legislative Committee and reported the necessity of getting some action. This was on Thursday. On Friday we sent a number of telegrams from the City of Detroit protesting the passage of the bill, and on that afternoon Senator Johnson succeeded in getting a reconsideration of that bill. Then the Legislative Committee of Wayne County got active and sent telegrams to the secretaries of the various County Societies throughout the State, the health officers of various large cities, advising them that the bill had already passed the House and Senate, that it was up for reconsideration and asking them to get in touch with their senators and point out to them the viciousness of the bill. That was done very promptly, and here let me express the gratitude and thanks of the Wayne County Committee for the support that came in from all parts of the State. On Monday morning telegrams poured in from all over protesting against the passage of this bill. On Monday the bill came up again and through the very clever coup of Senator Johnson the bill was finally defeated by a vote of 29 to 1. (Applause).

That was how it was done. The Chiropractors, however, did not give up the fight. It was true that they did everything they could and would do everything they could to get a reconsideration. About two o'clock the next morning we were called up by long distance by the representative of the Wayne County Committee who was on the ground, and were told that the Governor would like to have your President and myself come out for a conference. We went out and went into a conference about 7:30 in the evening, and remained in conference until midnight or after and thrashed the matter over from beginning to end. Finally the Governor said there would be no bill—and that was the end of it. (Prolonged applause). I do not think the Governor really understood before what the bill meant.

Now let me give you a few illustrations of what it did mean: The Legislature was trying to define by legislative enactment what disease really is. It utterly ignored the science of bacteriology and the germ theory of disease. Let us suppose a case: Suppose a child is born and two or three days later is discovered to have sore eyes. "What of it," one of the advocates of the bill would say, "the bill does not permit chiropractors to take care of obstetrics." It does not matter; suppose the mother was cared for by a midwife and when the sore eyes were discovered a chiropractor was called in. A scientific practitioner would know at once that it was a case of ophthalmia neonatorum, but a chiropractor—assuming it was an "anatomic disrelation"—would manipulate the shild's spine to cure its blindness, and permant blindness would be the result! Whose fault would this be? The mother, or the father? Not at all. It would be the fault of the Legislature for passing such a vicious law.

Now let me cite a case which is a fact: A few days before the bill was before the Senate a child in Highland Park had a sore throat. The child's mother called in a chiropractor, who at once discovered an "anatomic disrelation" and proceeded to manipulate the child's spine. The result was that the child died of diphtheria. Who was responsible? Not the mother, the father or the chiropractor, but the Legislature who would have passed such a bit of damnable, vicious legislation. (Applause). What would it amount to? From my viewpoint nothing less than potential murder. This case is not circumstantial but actually occurred in that suburb of Detroit.

Some of the advocates of the bill said "Only the fools who are chiropractors are opposed to the germ theory of disease." We said, "Who was the founder of this system—was it Dr. Palmer out in Iowa?" They said "Yes." Now Palmer is a man who had been a railroad foreman, who had had no scientific training whatsoever. Then we asked this man if he knew what Justice Hodgkins had to say about this bacterial theory at the time Palmer was questioned about this matter, when in answer to the question as to what he thought of the bacterial theory of disease Palmer said, "It is the most stupendous humbug of the age!" He said, "Blood counts, urinalyses, blood examinations, sputum examinations do not

amount to the snap of a finger." Then Justice Hodgkins said: "Do you gentlemen make a diagnosis before you proceed to treat your cases?" The answer was "no." (Laughter). "Why?" Then he said, "Because we don't have to. It does not make any difference to us whether a patient has smallpox, typhoid fever, scarlet fever, pneumonia, insanity, or anything else. We don't want to know what the patient was suffering from. We don't care for symptoms. We find the anatomic disrelation and we restore the proper relation, and we therefore restore the proper flow of the nerve force and the patient's life is saved." (Laughter). Now that is just as clear as mud isn't it? (Laughter and applause).

Now, gentlemen, just fancy what would have occurred if it had not been for the activity of Senator Johnson, who is in the room, in helping to defeat this measure. We are going to face it again next session just as sure as God made little apples, and we have to do something to organize and do something to prevent such legislation as that. We have some suggestions based upon the experience of your President and myself. We believe you should adopt something with a view of crystalizing an organization in the State of Michigan and demand that it be done, and I want that understood right now and here that it should come from this Society and not from anywhere else so far as the doctors are concerned, but we must found an organization so that we may defeat such damnable legislation before it passes both the House and the Senate as it did at the last session. (Prolonged applause).

D. C. H. Baker, Bay City, moved that the House extend a vote of thanks to Senator Johnson for his work at the State Legislature. Supported by several and unanimously carried.

The President: I am very glad to extend a vote of thanks to Senator Johnson, and am sure we would all be pleased to have him speak to us for a few minutes in regard to this bill. (Applause.)

Senator Johnson: Mr. President, and Delegates to the State Medical Association: "I wish to thank you for the compliments and your expressions of good will for the work which I accomplished through the hearty co-operation of the medical profession throughout the State. Without your help and hearty co-operation I would have been powerless to defeat this bill after it had passed the House and Senate. As Dr. Kennedy said, the telegrams poured in and that was what turned the tide in our favor.

I was much disappointed that the resolution commending the Governor did not receive support and pass this evening. Evidently someone has been misinformed. The Governor, I think, was rather passive in the matter of this bill. When you take into consideration that the bill passed the House with the roll call attached it means that it passed unanimously. Not a word was spoken in opposition to this bill in the House. It came to the Senate and we had been informed that the bill would not come out of committee. But eventually it was brought out with the amendment that the chiropractor would have to take a nine months' course each year for four years. We thought that was reasonable and no one would object, but I was absent, as was the Chairman of the Committee, and when the bill came up for reading the amendments were taken off. As things were this year any bill that came from any of the professions could be passed—as they did pass. I returned on Wednesday and the bill was up for the third reading, which means a final pasage. I arrived in Lansing about one o'clock, the bill came up about three and there was no chance to do any work before, but as soon as the bill passed with only four votes against it—it goes without saying that one of them was mine—I went to the telegraph office and sent the telegrams. The next morning telegrams began to arrive and senators from various districts came to me and began to ask questions. I did not tell them that I was responsible for the telegrams but I had no difficulty in getting the bill postponed for one day, and on Friday more telegrams kept coming in so I had no difficulty in getting it postponed for another day, and that left it until Monday, and when the bill finally came up on Tuesday it was defeated, as you know.

I had a conference with the Governor and the abettors of this bill and the Governor said he would sign a reasonable bill if it passed the House and Senate, meaning one to which the medical profession would have no serious objection. But when the Governor understood the viciousness of the bill he absolutely refused to bring about a reconsideration of the bill. (Applause).

The Secretary announced that Nominating Committee and the Business Committee would both go into conference immediately after the adjournment of the House of Delegates.

On motion duly seconded the House adjourned to reconvene at 8:00 a. m. Wednesday.

SECOND DAY

WEDNESDAY, MAY 25

The second session of the House of Delegates of the 56th Annual Meeting of the Michigan State Medical Society was called to order in the Masonic Temple, Bay City, at 8:30 a. m. Wednesday, May 25, 1921, by Vice-President, Udo J. Wile, Ann Arbor.

REPORT OF COMMITTEE ON CREDENTIALS

The Committee reported a quorum present and the Chairman thereupon declared the House of Delegates duly constituted for the transaction of business.

ROLL CALL

The Secretary called the roll.

REPORTS OF COMMITTEES

Business Committee: Dr. R. L. Clark, as Chairman, presented the following report:

1. *Subject of Fees*: Our recommendation is that each County Society report to this Committee their status on the question of medical fees to be adopted as a State schedule on or before January 1, 1922, in order that this Committee may make a definite recommendation as to a fee schedule at the next Annual meeting of the State Medical Society in 1922.

2. *Amendment of Constitution relating to Legislative Committee*: We recommend the amendment of the Constitution increasing the number of members of the Legislative Committee from three to five, residing in the various parts of the State, to be appointed by the President, subject to the approval of the Council of the State Medical Society.

We further recommend that each County Society appoint a Legislative Committee whose Chairman shall keep in touch with the State Legislative Committee.

We further recommend that the State Legislative Committee be advised by this Society to affiliate, when it seems advisable, with other bodies to carry out legislation.

3. *Regional Clinics*: We recommend the endorsement of the report of the Regional Clinics Committee, except that portion relating to the establishment and maintenance of laboratories, which appears to this Committee as not being clearly stated.

4. *Civic and Industrial Relations*: Your Committee recommends the adoption of the report of this Committee and the accompanying resolution as read.

5. *Medical Education*: Your Committee recommends that the report be accepted as it appears in the Official Program of the Annual Meeting.

6. *Venereal Prophylaxis*: Your Committee recommends that the report be accepted as it appears in the Official Program of the Annual Meeting.

7. *Amendment of the Constitution relating to the Establishment of a Section on Pediatrics*: Your Committee recommends that the Constitution of the State Medical Society be so amended as to provide for the establishment of a Section on Pediatrics.

8. *Report to the House of Delegates*: Your Committee recommends the appointment by the President of a Committee of five to formulate a plan for the education of the public in respect to the advancement and progress of medical science, to report at the Annual Meeting in 1922.

9. We suggest that patients be advised in advance in respect to fees for special service.

Respectfully submitted and signed:

R. L. Clark, Chairman,
Arthur F. Fischer,
C. C. Clancy,
A. V. Wenger,
Chas. B. Tweedale.

ACTION ON REPORT OF BUSINESS COMMITTEE

The Secretary read the report paragraph by paragraph.

Paragraph 1: Dr. G. E. Frothingham, Wayne, moved its adoption. Supported by Dr. Carl Moll, Genesee. Carried.

Paragraph 2: Dr. J. A. Wessinger, Washtenaw, moved its adoption. Supported by Dr. C. A. Mitchell, St. Joseph. Discussed by Drs. B. G. Monkman, Wayne; Frank B. Walker, Wayne; O. L. Ricker, Tri; R. L. Clark, Wayne; John N. Bell, Wayne. Dr. B. G. Monkman requested a rising vote on the motion to adopt, which resulted in a vote of 32 to 1 in the affirmative.

At this point in the proceedings the Vice-President surrendered the chair to President McLean.

Paragraph 3: Dr. J. D. Brook, Kent, moved its adoption. Supported by Dr. J. A. Wessinger, Washtenaw; carried.

Paragraph 4: Dr. John N. Bell, Wayne, moved its adoption. Supported by Dr. C. D. Brooks, Wayne; carried.

Paragraph 5: Dr. R. H. Nichols, Ottawa, moved its adoption. Supported by Dr. E. T. Morden, Lenawee; carried.

Paragraph 6: Dr. F. C. Kinsey, Kent, moved its adoption. Supported by Dr. J. D. Brook, Kent; carried.

Paragraph 7: Dr. J. D. Brook, Kent, moved its adoption. Supported by Dr. Carl Moll, Genesee; carried.

Paragraph 8: Dr. W. J. Wilson, Wayne, moved its adoption. Supported by Dr. J. A. Wessinger, Washtenaw; carried.

Paragraph 9: Dr. J. A. Wessinger, Washtenaw, moved its adoption. Supported by Dr. W. J. Wilson, Wayne; carried.

Dr. Udo J. Wile, Washtenaw, moved that the report be adopted as a whole. Supported by Dr. W. R. Clinton, Wayne; carried.

NEW BUSINESS

Resolutions: Dr. F. C. Kinsey, Kent, introduced the following resolution and moved its adoption:

Resolved, that the House of Delegates of the Michigan State Medical Society most heartily endorses and approves of the action of Governor Groesbeck and the Senate in rejecting the Chiropractic bill during the recent session of the State Legislature; be it further

Resolved, that the Secretary be instructed to wire a copy of this resolution to the Governor.

Supported by Dr. A. W. Hornbogen, Marquette. Unanimously carried.

Dr. Frank B. Walker, Wayne, introduced the following resolution and moved its adoption:

In order that prompt action may be secured, be it Resolved, that the rules be suspended and the amendment to the Constitution relative to the Legislative Committee be given immediate effect.

Supported by Dr. F. C. Kinsey, Kent; carried.

The Secretary thereupon offered the following amendment to the Constitution and By-Laws in reference to the Legislative Committee: Section 3, Chapter IX of the By-Laws, to strike out in line 2 the word "three" and substitute therefor the word five.

Dr. Frank B. Walker, Wayne, moved that this amendment be adopted. Supported by several; carried.

The Secretary offered the following amendment to the Constitution and By-Laws in reference to the creation of a new Section: Section 10, Chapter IV of the By-Laws, which provides that the House of Delegates shall arrange for the division of the scientific work of the Society into appropriate sections, be amended to provide for a Section on Pediatrics.

Dr. Frederick B. Miner, Genesee; moved that this amendment be adopted. Supported by several; carried.

Dr. O. L. Ricker, Tri, called attention to the fact that there had been no report from the Committee on Tuberculosis at this session of the House of Delegates, and requested that the Business Committees take up the matter of stimulating the work of this Committee, and that the subject of tuberculosis be added to the Regional Clinics so that the public may become better educated in regard to tuberculosis.

Dr. Udo J. Wile, Washtenaw, called attention to the resolution which was introduced at the 1920 meeting of the Michigan State Society relative to the interpretation of the present venereal law, and reported that nothing had been done except that the Committee appointed at that time reported that the physicians of the State preferred to report their cases by name.

Dr. J. D. Brook, Kent, moved that the action taken by the House of Delegates at its 55th Annual Meeting in regard to the venereal law, requesting the State Council of Health to change Section 5, be referred to the new Legislative Committee of the State Medical Society. Supported by Dr. J. A. Wessinger, Washtenaw; carried.

On motion duly seconded the House of Delegates adjourned to reconvene at 8:00 a. m. Thursday.

THURSDAY, MAY 26

The third session of the House of Delegates of the 56th Annual Meeting of the Michigan State Medical Society was called to order in the Masonic Temple, Bay City, at 8:15 a. m., Thursday, May 26, 1921, by the President, Dr. Angus McLean, Detroit.

REPORT OF COMMITTEE ON CREDENTIALS

The Chairman reported a quorum present and the President thereupon declared the House of Delegates duly constituted for the transaction of business.

ROLL CALL

The Secretary called the roll.

REPORTS OF COMMITTEES

Business Committee: Dr. R. L. Clark, Wayne, as Chairman, presented the following report:

1. *Report of Committee on Amendment to Constitution and By Laws submitted at the last Annual Meeting*: Your Committee recommends that Article VIII, Section 2, be adopted as printed in the Official Program except that portion rendering a Councillor ineligible for re-election.

2. We recommend the adoption of the various changes in the Constitution as introduced by J. D. Brook of Kent, as printed in the Official Program, with the exception of the correction of the typographical error, as follows: "Chapter VII, Section 1, of the By-Laws should read "Article VIII, Section 3 of the Constitution" and "Section 3 of the same Article" should read "Chapter VII, Section 1 of the By-Laws."

3. *Financial Report*: Your Committee recommends the adoption of the Financial Report as published.

4. *President's Recommendations*: Your Committee recognizes the value of the President's recommendations in his address regarding the personnel of the Legislative and Fee Committees, but we feel that these points have already been covered and adopted by the House of Delegates,

5. *Report of the Ethics Committee of the Wayne County Medical Society*: Your Committee recommends that this report be referred to the State Legislative Committee.

Respectfully submitted and signed:

R. L. Clark, Chairman,
Arthur F. Fischer,
C. C. Clancy,
A. V. Wenger,
Chas. B. Tweedale.

ACTION ON REPORT OF BUSINESS COMMITTEE

The Secretary read the report paragraph by paragraph.

Paragraph 1: Dr. A. W. Hornbogen, Marquette, moved that this paragraph be not approved. Supported by Dr. R. H. Nichols, Ottawa. Discussed by Drs. R. L. Clark, Wayne; A. W. Hornbogen, Marquette; W. T. Dodge, Mecosta. Motion voted and unanimously carried.

Paragraph 2: Dr. R. H. Nichols, Ottawa, moved its adoption. Supported by Dr. Carl Moll, Genesee; carried.

Paragraph 3: Dr. C. C. Slemons, Kent, moved its adoption. Supported by several; carried.

Paragraph 4: Dr. B. M. Davey, Ingham, moved its adoption. Supported by several; carried.

Paragraph 5: Dr. R. H. Nichols, Ottawa, moved its adoption. Supported by Dr. J. A. Wessinger, Washtenaw; carried.

Dr. John N. Bell, Wayne, moved that the report be adopted as a whole. Supported by Dr. Frank B. Walker, Wayne; carried.

The Secretary: The action of the House on the report of the Business Committee on the amendments to the Constitution and By-Laws submitted on pages 15 and 16 of the Official Program, making several changes, provides for the election by the House of Delegates of a Speaker and Vice-Speaker of the House.

Dr. C. C. Slemons, Kent, moved that the Nominating Committee report on candidates for these offices. Supported by A. W. Hornbogen, Marquette; carried.

The Secretary: There now comes before the House the appointment of a Committee on Fee Schedule to be composed of three members from the Council, two from the Surgical and two from the Medical Sections, to be known as the "Fee Schedule Committee' and to report at the next Annual Meeting. The House should by motion authorize the President to appoint such a Committee.

Dr. A. V. Wenger, Kent, moved that the President be authorized to appoint the Fee Schedule Committee suggested in his Annual Address, such Committee to report at the next Annual Meeting. Supported by Dr. H. W. Peirce, Wayne; carried.

NOMINATING COMMITTEE

Dr. J. N. Bell, Wayne, as Chairman, presented the following report:

Your Committee begs leave to make the following report: For President: The unanimous vote

of the Society was cast for W. J. Kay, of Lapeer. (Applause).

For First Vice-President: Dr. J. W. Hauxhurst, Bay City.

For Second Vice-President: Dr. E. Sawbridge, Stephenson.

For Third Vice-President: Dr. H. MacMullen, Manistee.

For Fourth Vice-President: Dr. H. A. Hafford, Albion.

For Councillors:
First District: Dr. F. B. Walker, Detroit.
Third District: Dr. R. C. Stone, Battle Creek.
Sixth District: Dr. H. E. Randall, Flint.
Seventh District: Dr. C. C. Clancy, Port Huron.

For Speaker of the House: Dr. J .D. Brook, Grandville.

Vice-Speaker of the House: Dr. Carl Moll, Flint

Meeting Place:

Invitations were received from Ottawa Beach and from Flint for the 1922 meeting. The Committee voted two to three in favor of Flint.

Respectfully submitted:

O. L. Ricker,
Carl Moll,
G. S. Gorsline,
R. H. Nichols,
J. N. Bell, Chairman.

ACTION ON REPORT OF NOMINATING COMMITTEE

The President requested the Secretary to read the report section by section.

Section I: Dr. B. G. Monkman, Wayne, moved that the Secretary cast the ballot of the House for the four vice-presidents nominated. Supported by several; carried.

The Secretary reported the ballot cast and the President declared the four nominees duly elected.

Section II: Dr. J. D. Brook, Kent, moved that the Secretary cast the ballot of the House for the councillors nominated. Supported by Dr. G. E. Frothingham, Wayne; carried.

The Secretary reported the ballot cast and the President declared the councillors for the First, Third, Sixth and Seventh Districts duly elected.

Section III: Dr. R. C. Andries, Wayne, moved that the Secretary cast the ballot of the House for Speaker and Vice-Speaker nominated. Supported by Dr. B. G. Monkman, Wayne; carried.

The Secretary reported the ballot cast and the President declared the Speaker and Vice-Speaker duly elected.

Section IV: Dr. Frederick B. Miner, Flint, moved that the recommendation in regard to a meeting place for 1922 be concurred in. Supported by several; carried.

NEW BUSINESS

The President appointed the following Legislative Committee: Dr. J. B. Kennedy, Wayne, Chairman; Dr. J. H. Meyers, Saginaw; Dr. G. L. LeFevre, Muskegon; Dr. C. D. Munro, Jackson; Dr. W. K. West, Painesdale.

RESOLUTIONS

Dr. J. D. Brook, Kent, presented the following resolution and moved its adoption:

Whereas, the time for holding meetings of the House of Delegates is inconvenient and interferes seriously with the rest period of its members and committee workers,

Therefore, be it resolved that the Secretary be requested to set the time for meetings of the House at a more dignified hour.

Supported by Dr. A. W. Hornbogen, Marquette; unanimously carried.

Dr. J. D. Brook, Kent, then presented the following resolution and moved its adoption:

Be it resolved, that the House of Delegates of the Michigan State Medical Society endorse the petition of the American Anesthetists Association to the House of Delegates of the American Medical Association for the establishment of a Section on Anesthesia in the A.M.A.

Supported by Dr. C. C. Slemons, Kent; carried.

Dr. O. L. Ricker, Tri, offered the following resolution; and moved its adoption:

Resolved, that the House of Delegates of the Michigan State Medical Society acknowledges its appreciation and keen enjoyment of the courtesy and hospitality extended by the local physicians, the Bay County Medical Society, the Mayor and citizens of Bay City and the daily press.

Supported by Dr. G. E. Frothingham, Wayne, and unanimously carried.

INSTALLATION OF OFFICERS

The President: Gentlement, a great and serious change has taken place in the Michigan State Medical Society. The House of Delegates is to meet at a dignified hour (laughter) and have a Speaker and a Vice-Speaker. If the newly elected Speaker accompanied by the Vice-Speaker will come to the front we shall be pleased to hear from them. (Applause, "speech, speech.")

Dr. J. D. Brook, Kent: Mr. Chairman, Gentlemen: Little did I think a year ago, when at the request of one or two members I looked up the Constitution and By-Laws with a view of making this change and having a Speaker of the House of Delegates, that I was to be the goat (laughter), but inasmuch as you have burdened me with this office I will endeavor to fill it to the best of my ability. I will try to have the resolution that I introduced to have the meetings of the House at a more dignified hour brought about for the convenience of the members of the House. I will say that we will try to be on hand promptly. I will have my watch right and when the gavel drops the roll will be called. I have had some experience in the House of Delegates of the American Medical Association and it strikes me very favorably. The time set for the meeting is 9:00 o'clock and when that hour comes the gavel drops and business begins, and it keeps on until the business is finished, whether it takes one hour or six hours. It keeps going rapidly and consecutively and I think that is the way to do it. I believe we can accomplish more and think everybody will be better satisfied.

I thank you for the honor you have bestowed upon me in presenting me with this job. (Applause).

Dr. Carl Moll, Genesee: Gentlemen: I am a little like the Speaker. This honor came very unexpectedly, but I wish to thank you for your expression of confidence and to heartily second all the Speaker has said. I am in somewhat the position of the very prominent man who was called up by telephone one morning by a well-known society woman, who said: "Mr. Blank, we want you to be Vice-President of our Society. Will you accept the honor?" He replied, "Why, yes, Madame; I'm great for anything that vice is connected with. But, by the way, just what is your Society?" and the lady replied—"It's the Society for the Advancement of Social Purity." (Laughter and applause.)

As this concluded the business of the 56th Annual Meeting, the House of Delegates, upon motion duly seconded, adjourned *sine die*.

ORGANIZATION OF SECTION ON PEDIATRICS.

The members interested in the organization of the newly authorized Section on Pediatrics met in the Masonic Temple, Bay City, after the adjournment of the House of Delegates, and were called to order by the Secretary of the State Society.

Announcement of the authorization of the Section by the House was made and the Secretary entertained nominations for the election of Section officers.

Dr. Carl Moll, Genesee, moved that Dr. F. B. Miner, Genesee, be made Chairman for one year. Supported by Dr. R. L. Clark, Wayne; carried by unanimous vote.

Dr. Carl Moll, Genesee, moved that Dr. Lafon Jones, Genesee, be made Secretary for a term of two years, in accordance with the Constitution and By-Laws. Supported by Dr. George K. Sipe, Wayne; carried by unanimous vote.

FIRST GENERAL SESSION.

The First General Session of the 56th Annual Meeting of the Michigan State Medical Society was called to order in the Baptist Church, Bay City, at 10:20 a. m., Wednesday, May 25, 1921, by the President, Dr. Angus McLean, Detroit.

INVOCATION

Rev. J. Roy Van Wyck.

Oh, great and eternal spirit God, in whose sight all families of the earth were to be and have been blessed, called the Nazarene Father, to whom all nations have come and have called Thee Lord of All, look in the plenitude of Thy mercy upon us assembled here, of various faiths but sharing the honorable and great profession of ministering to humanity in it's need. Be Thou the guide and inspiration and influence of this convention here assembled. As these Thy servants review the great responsibilities that are theirs in caring for the physical needs, may Thy all-present spirit provide and strengthen in them the humanitarian impulse to see that poverty may be no handicap in the way of receiving the best of skill. We thank Thee for the service of these Thy children in saving life. May they save their own souls as they lose themselves in their profession. Save them from that Spiritual loss which they may sacrifice in their service. May these servants of Thine permit medicine and religious faith and means to go hand in hand in the daily ministering to soul and body, that there may be a sound mind in a sound body. All of which we ask in the name of the Great Physician, Jesus Christ, who taught us all to say—

Our Father, who art in Heaven, hallowed be Thy name. Thy Kingdom come, Thy will be done, in earth as it is in Heaven. Give us this day our daily bread and forgive us our trespasses as we forgive those who trespass against us. Lead us not into temptation but deliver us from evil, and Thine be the power, and the glory and the honor, forever and ever. Amen.

ADDRESS OF WELCOME

Dean M. McMillan, Acting Mayor of Bay City:

Mr. President, and Gentlemen of the State Medical Association: This is the only occasion upon which I am the acting mayor of Bay City. I hold another position under the City Government, but owing to the Mayor having been summoned to attend a special session of the Legislature, of which he is a member, I came here at his express request, and also at his express request I extend a hearty and sincere welcome to this City.

We are glad to have you with us and to entertain you, and we think it an honor that you should be here. We are glad the sun shines upon you and hope the day may be an indication of a bright meeting of your Association.

Bay City, we feel at present is in a very satisfactory and progressive condition. There was a time when Bay City seemed to be asleep. One of the manufacturing lines of the country a few years ago made a survey to see if this would be a suitable place for one of its branches and the report which went back—which was not made public at the time—was that Bay City was deficient in three things: It lacked pure water, it had an inadequate school system, and its form of City Government was obsolete. We are proud to say that we think those three things have been rectified and removed. Bay City has taken provision to get an adequate water supply at an expense of over three million dollars in bonds which have been authorized by the people, and work will soon commence. That removes that blot upon the prospects of this city.

The inadequate school system has also been remedied. You will see a fine new high school being erected on Columbia avenue. The work is being delayed just now on account of the use of the funds provided, but a special session has been called for the purpose of completing the funds, which will furnish us one of the best high schools in the State, and with that goes improvement of the entire school system.

Bay City has also recently installed a new City Government and has a charter which took effect

the first of April. A new City Manager has just come to take his place in the City affairs, to manage the City, and give it what the citizens hope will be a progressive, up to date form of City government.

We think that with these improvements we have established a City that will be second to none of its size in the United States. It is to this City that we welcome you, and we hope that your stay among us will be profitable and pleasant. (Prolonged applause.)

ADDRESS OF WELCOME

Dr. G. M. McDowell, President, Bay County Medical Society:

Mr. President, Fellow Members of the State Society: Our honorable Acting Mayor has on the part of the Mayor welcomed you to Bay City. It now remains for me, on account of the Bay County Medical Society, to extend a welcome. The members of our Bay County Medical Society are at your service. If you need a room they will find one for you. If you need anything all you will have to do will be to make your wishes known.

When I am called upon to make a speech or an address I am reminded of the superintendent of a normal school down in my old home in Ohio. He seemed to specialize in dedicating country school houses. For a period of forty or fifty years he did this, and he said in beginning his address that as long as he said nothing about the dedication, and nothing about the school house, he felt that he was making a very satisfactory address. (Laughter). Probably if I avoid my subject the speech will serve the same purpose.

We of the Bay County Medical Society have felt during the past year or two very proud of the fact that we have in our membership one of the original charter members of our State Society. If I am rightly informed there are only two living charter members of our State Society. They are Dr. Theodore McGraw of Detroit and Dr. Henry B. Landon of Bay City. As I understand the matter, it was fifty-five years ago—of course that is not very long and most of you remember back that far, or further (laughter), but my recollection is a little faint of the time when our State Society passed through the embryological stage of its development. Anyway, we are proud of having one of the charter members with us. Dr. Landon was the seventeenth to sign the State Charter. When he came home from the organization meeting at Detroit he first grouped the counties Bay, Arenac and Iosco and formed this local Society which he named the Bay County Medical Society. Geographically our Society is the same to-day as before. A short time later he went North and organized the O.M.C.O.R.O. Society, composed from six counties that comprise it—Oscoda, Montgomery, Crawford, Otsego, Roscommon and Ogemaw. Ogemaw county is where we in Bay City have been getting our choicest supply of liquid food in the last few years (laughter) in the shape of H_2O, or aqua pura. Dr. Landon is yet a man who can be described as vigorous, robust and progressive. He just recently made a trip to California and is still "one of the boys." Dr. Landon was always willing to go on foot and out of his road to advance the profession of medicine, and it was such men as Dr. Landon who placed the Michigan State Society on the boards.

Our medical press during the last few years has criticized the medical profession for not spending a sufficient time in recreation and pleasure. We in Bay City have adopted what we call the "Australian plan," dividing the day in three parts. Eight hours for work, eight for rest, and eight for recreation, as they do in Australia, and quite a few of us divide the eight hours for recreation between the golf course, the base ball park and the Board of Commerce Club, and there is hardly a day in the year but what the members of our Medical Society are represented at some of these places for recreation and relaxation. We enjoy these recreational centers practically every day in th year, and we want all of you to enjoy them during your stay in the City.

As President of our Bay County Medical Society, I take pleasure in transferring all these places to you for this meeting, and at any future time when you come to our City we shall be pleased to see you around and have you enjoy these places with us. (Applause).

RESPONSE TO ADDRESSES OF WELCOME

President Angus McLean.

Gentlemen: If Dr. Landon were present I would ask him to come forward so that we all might make his acquaintance, but he is not present. It is quite an honor for any county to have one of the original signers of the Charter of the State Medical Society, and I am sure we would all appreciate meeting Dr. Landon.

From the addresses you already know that you are in a perfectly satisfactory city, where they have few Protestant policemen and many pleasant things and all will be allowed to enjoy them. I know some of you were pleased to learn that the water supply was now satisfactory, because some brought something with them in case it was not (laughter) but the supply did not last long because of the rain last night (laughter).

I will not say much for we all know how welcome we have been made. I want to thank the Government of Bay City and the Bay County Medical Society, especially its President for the splendid arrangements they have made. Perhaps before we are through we may be able to do something a little more formally for the Bay County Society. (Applause).

We will now listen to the report of the House of Delegates.

REPORT OF THE HOUSE OF DELEGATES

Dr. Frederick C. Warnshuis.

The House of Delegates met in formal session

last evening, at which time the various Committee reports were received.

The House met again this morning and passed upon recommendations, the most important of which is the creation of a Section on Pediatrics, making five sections. They increased the personnel of the Legislative Committee from three to five, to be appointed by the President subject to the approval of the Council. They also authorized a new Committee consisting of five members selected from various parts of the State for educating the public in regard to the achievements of the medical profession.

A telegram was formulated expressing the thanks of the Society to Governor Groesbeck for his action in regard to recent medical legislation which took place at Lansing.

PRESIDENT'S ANNUAL ADDRESS

Dr. Angus McLean, Detroit.

(See June Issue.)

President: As Dr. Victor C. Vaughan was unable to be present to deliver an address, the President requested Dr. J. B. Kennedy to speak for a few minutes on the recent legislation.

ADDRESS

Dr. J. B. Kennedy, Detroit: Mr. President, Ladies and Gentlemen: The suggestion that while we are here in Bay City we may have anything we want I assure you is very welcome, and inasmuch as I have not yet accepted his suggestion it is perfectly safe for me to talk and you may be sure I will not say anything that it would not be safe to have in a report (laughter). I am going to get in touch with Dr. McDowell, though, and ask him to come around to room 350 in the hotel where I am stopping and bring me a little Ogemaw water! (Laughter and applause). I am rather surprised at that invitation being extended from the pulpit of a Church, but it shows the tendency of the times to be progressive in everything.

Dr. McLean hit the nail fairly and squarely on the head when he said that there was a lot of work going on to undermine scientific medicine and surgery. He was also right in saying that scientific medicine was established a little over thirty years ago—thirty-eight years ago this month, because it was the 30th of May, 1883, that Pasteur made his experiments upon a farm in France in which he proved beyond any doubt his theory regarding the treatment of anthrax. In 1885 he brought out his treatment for rabies. In 1892 Koch published his first article on the treatment of diphtheria. In 1894 at the International Convention Ruhl (?) read a paper describing his results after clinical observations in the treatment of diphtheria. There happens to be in this room at present a gentleman whose father was present at that famous meeting. I have reference to Dr. Vaughan of the Health Department of Detroit. I remember Dr. Vaughan, Senior, told me that it was the most enthusiastic meeting he ever attended, that the audience rose to its feet and cheered for nearly five minutes when this report was made.

Since that time the practice of medicine has been raised from the realm of empiricism which was practiced by the ancient Greeks to a scientific basis. We have gotten along fairly well since the establishment of the germ theory of disease. Think of what was done in the Panama Canal Zone. Through the practice of bacteriology the Canal Zone was changed from an uninhabitable country to an actual health resort. Think of what has been done in the South in the treatment of typhoid and malarial fever and the various contagious and infectious diseases. Think of what was done in all the armies of the allies in the late war in reference to typhoid fever. It is wonderful when we stop and think of it, and yet there is now this insidious propaganda against the scientific foundation on which our profession rests to-day.

I wonder how many of you saw this article in the daily press a few days ago—"Germ as Disease Cause Ridiculous?" The article is as follows: "Washington, May 18, 1921. Dr. Walter R. Hadwen, President of the British Union for the abolition of Vivisection, precipitated a clash with Dr. George W. McCoy, director of the Federal Hygienic Laboratory, here last night when he asserted at a meeting under auspices of the National Society for Humane Regulation of Vivisection, that epidemic diseases were often the result of preventive inoculation.

"Dr. McCoy characterized the statement from the floor as "a damnable lie," and Dr. Hadwen demanded that Dr. McCoy "prove the lie."

"Dr. Hadwen asserted that the germ theory of disease would be completely upset within another decade, the medical profession recognizing that disease germs were the result rather than the cause of disease. He said inoculation for disease is the "most ridiculous assumption ever introduced into a sane world."

That means that epidemic diseases are definitely the result of autointoxication, and that is just an example of what is going on every day. It came pretty close to us a few weeks ago here in Michigan, as was stated by the President. The chiropractor bill, which passed the House unanimously, with the roll call attached, and which passed the Senate by a vote of 28 to 4, had absolutely no provision in it recognizing the germ theory of disease. In the discussion in Governor Groesbeck's office at which Dr. McLean and myself were present, Dr. McLean advanced that as one of the reasons why we were opposed to the bill. That raised the question of the State of Michigan raising a fund every year for preventing the spread of infectious diseases. One of the proponents of the bill said that "only mutts among the chiropractors do not recognize the germ theory of disease." Then we quoted this statement, "The germ theory of disease is the most stupendous humbug of the age"—a statement that was testified to by Dr. Palmer, the founder of the chiropractic school. This bill was passed by the House and Senate but was defeated owing to the work of our Senator, Dr. Johnson. I think I can now say on behalf of the Wayne County Medical Society, and on behalf of the President who signed the telegrams, we are exceedingly grateful to the profession all over the State for their help in defeating this vicious legislation. (Applause). The President has already suggested

the remedy: co-operation and concentration of effort. We will have to reform our ethics a little and have to look at things a little differently from thirty-five to forty years ago. We now have to apply our ethics in a practical way—not alone in the interests of our profession, but in the interests of the people who employ us, the people of the State of Michigan. We have to play the game of politics whether we like it or not. I know the average doctor does not like the term "politician," but what does it mean? It comes from the Latin and means politicus, applying to the citizens of the State. It means being sagacious and wise in promoting the best interests of the country. It has a good sense, prudent; and a bad sense, artful and unscrupulous. Let us play the game of politics in the good sense in the interests of suffering humanity, whose interests and whose cares are in our hands. Let us be decent about it. If we have something to sell, let us adopt the plan of the modern business and the modern professional man. Let us tell the people what we are doing and attempting to do for them, and let us tell the people about all of these vicious statements that are being circulated constantly throughout the country. Are we going to do it? Gentlemen of the profession—it is up to you! (Prolonged applause.)

President McLean: I am sure we would all be very glad to listen if Senator Johnson would say a few words to us. (Applause).

Senator Johnson: Mr. President, Members of the Michigan State Medical Society, Ladies and Gentlemen: This has indeed been a pleasure to me to-day. I think I occupy somewhat the same position as we do sometimes in relation to our patients. I think the greatest humiliation we get from our work is an appreciation for services rendered, but this appreciation offered me to-day is an ample remuneration for anything which I might have incurred during my term as a legislator.

I wonder if I do not occupy the same position on this program as the cook at a Chinese banquet —I might have been called upon to "fill up the chink." (Laughter.)

We should all take this medical legislation in a serious mind. The matter of proper propaganda is of much importance, but the final analysis is the vote, and in order that we may have the vote and get across the desired legislation it is necessary that we should sound out the men who aspire to the various offices of the legislature and learn their attitude towards the legislation which we desire. This legislation is not only for the medical men but for the equal benefit of the citizens of the State who ultimately will suffer if those various cults predominate.

We had a concrete example of what the medical profession can do in the influence which was brought to bear to defeat the chiropractic bill. I do not wish to assume that I had more than a little to do with the defeat of that bill. It was the hearty response of the medical profession when the S.O.S. was sent out which enabled me to stave the bill off for further consideration. With such an organization as has been suggested here, if you will become active and each individual will constitute himself a committee of one to sound out the men in his community who are candidates for office, and get them on record in a positive manner so that you will know what to expect, you can accomplish much. If they do not prove true to their trust you will know what to do next time they come up. Men who have been in office certainly fear public opinion and 'the people back home,' and there are no men who exercise the same influence in any community as do the medical men. You reach into each home and in that home you have a great deal of influence. If you say a certain man is qualified for a certain position it will have much influence when the man or woman goes to the polls to cast their vote.

I am glad I was in the Senate and had an opportunity to do a little in the service, which I consider was a real service, to the medical profession and to the State of Michigan. (Prolonged applause.)

NOMINATIONS FOR PRESIDENT.

Dr. Herbert E. Randall, Flint: I do not think it would be safe to nominate a specialist (laughter). I have in mind a family physician. I think he is an ideal man and his term as Councillor expires to-day. I have known him for a quarter of a century and think he has more friends throughout the State than any other man I know. I am referring, Mr. President, to Dr. William J. Kay, of Lapeer. (Applause). I wish I had the vocabulary of Dr. Kennedy to tell you all the nice things I think of Dr. Kay, but you will just have to take my word for them. (Applause.)

Dr. Louis W. Toles, Lansing: I did not know until this minute that Dr. Kay was to be nominated, but I wish to endorse him most heartily.

Dr. W. J. DuBois, Grand Rapids: I have known Dr. Kay for many years and know he is a hard worker. I take great pleasure in endorsing him.

Dr. Udo J. Wile, Ann Arbor: Mr. President, I move that the nominations be closed. Seconded and carried.

The President declared the first general session adjourned at 12:00 M.

THIRD GENERAL SESSION.

The third General Session of the 56th Annual Meeting of the Michigan State Medical Society was called to order in the Baptist Church, Bay City, at 11.45, Thursday, May 26, 1921, by the President, Dr. Angus McLean, Detroit.

REPORT OF THE HOUSE OF DELEGATES

The Secretary offered the report of the House of Delegates at its last session.

REPORT OF ELECTION OF PRESIDENT

Dr. John N. Bell, Detroit.

There was only one nominee for President, Dr. W. J. Kay, of Lapeer, who received 438 votes. (Applause).

INTRODUCTION OF NEW PRESIDENT

The President requested Drs. Dodge and Stockwell to escort the newly elected President to the platform.

Dr. McLean: It is a great pleasure to introduce to you a man so well known to the Society. Dr. Kay comes from the same nationality that I do—the Irish (laughter)—and it is with much pleasure that I introduce him to you. (Prolonged applause.) (Cries of "Speech, speech.")

Dr. Kay: I very much appreciate this honor and consider it the greatest honor that I have had conferred upon me, or can have conferred upon me, for I think no physician can receive anything in this world to equal the confidence of his fellow physicians. It is something to be desired in a community and in a State, and when my fellow physicians confer upon me the presidency of the State Society I think there is nothing for me to wish for. Of course, I never hope to fill the shoes of the retiring President. There is a saying among his particular friends that "you can't lose Angus" (laughter)—I probably could be lost, so I have no hope of ever filling Dr. McLean's shoes. There is a saying among the Scotch that "Where McLean sits there is the heat of the feast always," but that does not pertain to the Kays.

I have nothing to say now but at the end of my term I may inflict something upon you.

In this meeting of our Society I have sensed a spirit of life that I never felt before. We came through a baptism during the last session of the Leislature and that is a good thing many times, and I think it is a good thing for us perhaps. But with the feeling that he is going to put the things that is past history. We have had our troubles and our flare-ups and our differences, but we will put those things behind us and go forward to a renewed and united effort.

Let each man here go home to his community across that the medical profession stands for. There he is not going to allow himself to be knocked down and stepped on before he asserts himself. Let each of us go home and begin tomorrow, or to-night if necessary, to lay plans to insure the success of whatever the profession stands for in Michigan. I have always contended, and I know it is true, that we can do what we wish to do, provided we are united and apply ourselves to the test. The medical profession never stands for things that are selfish but we are often placed in that light by traitors. We cannot publish our work and speak of it but we can do a lot more than we do and do it ethically, and if we apply ourselves to that we will succeed.

My first advice to you as President is that each of you go home to your community and be a real, active influence in that community for the things that the medical society of Michigan stands for. I thank you. (Continued applause).

Dr. McLean: After these few remarks from Dr. Kay I am sure the Society feels more than ever convinced that it has chosen the right man for the right thing at the right time—although the times are dry. I know he will give this organization some inspiration.

Dr. J. B. Kennedy, Detroit: I want everybody to carry out in a practical way the mesasge the New President has just given us. I commiserate the Society upon my appointment as Chairman of the Legislative Committee, but let me say very briefly that we have had a meeting already. We began to function within ten minutes of the time we were appointed. We have begun to raise funds, we have a secretary, and we figure that we will expect of the County Societies an average contribution of $2.00 a member this year. I have great pleasure in announcing that as I was walking along the street a few minutes ago I approached a gentleman and told him we needed funds to carry on this work, and he said "Put me down for $500.00 for this year," so you see we are getting started. (Applause.)

Dr. McLean: I am glad we have heard the report of the newly elected Chairman of the Legislative Committee. I think he must have read the Detroit Free Press this morning which announces that a "Medical Clinic" will be given by the chiropractors (laughter) in Jackson. It may even be that the Chairman of our Committee helped them to select their place of meeting, but I think he has the right spirit and is started in the right direction.

As this concludes the business of the Annual Meeting I now declare the session adjourned *sine die.*

REGISTRATION.

Alpena—Leo F. Secrist, D. A. Cameron, C. M. Williams, A. R. Miller, A. E. Bonneville, L. T. Bell.

Antrim-Charlevoix-Emmett—W. H. Parks, B. B. Armstrong, B. H. Van Leuven.

Barry—F T. Andrews, C. S. McIntyre.

Bay—E. F. Crummer, A. D. Allen, C. F. Roche, V. T. Tupper, R. E. Scrafford, D. G. Smith, E. A. Hoyt, M. M. Ely, C. M. Swantek, C. A. Stewart, Edward Warren, H. M. Gale, H. P. Lawrence, W. E. Loud, J. M. Jones, A. O. Speckhard, J. W. Gustin, C. L. Hess, C. W. Baker, C. W. Ash, Morton Gallagher, T. A. Baird, J. H. McEwan, J. McLurg, M. R. Slattery, Huckins, W. G. Kelly, F. S. Baird, J. N. Slattery, J. L. Millard, G. E. Andrews, R. W. Brown, W. R. Ballard, J. W. Hauxhurst, J. C. Grosjean, P. R. Urmston, V. H. Dumond, Albert Stealy, G. M. McDowell, C. A. Traphagen, R. H. Criswell, G. W. Moore,, A. J. Zaremba, L. F. Foster, A. W. Herrick.

Berrien—J. F. Crofton, C. A. Mitchell.

Calhoun—T. L. Squier, J. T. Case, A. E. MacGregor, B. N. Colver, W. F. Martin, C. E. Stewart, M. J. Capron, L. V. Stegman, W. T. Morrison, A. A. Hoyt, M. A. Farnsworth, R. C. Stone, C. S. Gorsline, W. S. Shipp, W. G. Godfrey.

Cheboygan—C. B. Tweedale.

Clinton—W. A. Scott, W. B. MacWilliams, A. O. Hart, F. E. Luton.

Eaton—S. A. Stealy.

Genesee—H. W. Knapp, A. A. Peterson, H. S. Randall, C. G. Moll, H. D. Knapp, G. J. Curry, G. K. Pratt, J. H. Charters, M. W. Clift, J. W. Orr, H. A. Stewart, R. D. Scott, R. S. Morrish, W. H. Marshall, Max Burnell, Lafon Jones, W. DeKleine, L. M. Bogart, M. S. Knapp, D. D. Knapp, A. S. Wheelock, E. G. Dimond, D. C. Bell, F. B. Miner, W. Whitaker, D. L. Treat, W. J. Wall, J. G. R. Manwaring.

Grand Traverse-Leelanau—A. C. Wilhelm.

Gratiot-Isabella-Clare—W. M. Drake, I. N. Brainerd, E. M. Highfield, T. J. Carney, L. J. Burch, C. M. Baskerville, C. D. Pullen.

Hillsdale—T. H. E. Bell, B. F. Green.

Houghton—W. K. West, R. S. Buckland, A. F. Fischer, J. G. Turner.

Huron—W. Meddaugh, C. W. Armitage, C. M. McLean, F. B. Van Nuys, K. M. Morris, F. C. Wiley, W. B. Holdship, H. S. Watson, A. J. Howell.

Ingham—G. Bauch, O. H. Bruegel, L. W. Toles, C. L. Barber, H. S. Bartholomew, Samuel Osborn, J. A. Humphrey, Milton Shaw, F. J. Drolett, B. M. Davey.

Ionia—A. B. Penton, G. A. Stanton.

Jackson—G. Pray, T. E. Hackett, C. R. Dengler, M. N. Stewart, C. D. Munro, W. L. Finton, L. J. Goulet, H. B. Neagle.

Kalamazoo—A. W. Crane, L. J. Crum, L. H. Stewart, T. V. Rogers, C. E. Boys, E. P. Wilbur, D. H. Eaton, J. B. Jackson, C. H. McKain.

Kent—J. B. Whinery, T. W. Hammond, Ferris Smith, G. D. Houghton, Merrill Wells, E. N. Nesbitt, Alden Williams, R. R. Smith, A. M. Campbell, E. P. Currier, E. J. Byers, A. C. Butterfield, R. J. Hutchinson, G. H. Southwick, V. M. Moore, R. Webb, S. L. O'Brien, F. H. Shorts, C. H. Johnston, R. H. Spencer, W. J. DuBois, J. D. Brook, A. V. Wenger, C. C. Slemons, F. C. Warnshuis, F. C. Kinsey.

Lapeer—J. H. Burley, L. A. Traphagen, A. O. Boulton. D. J. D'Brien, W. J. Kay.

Lenawee—E. T. Morden.

Macomb—J. E. Curlett, J. M. Croman, H. H. Wiley, V. H. Wolfson, G. A. Persson.

Manistee—W. E. Coates.

Marquette-Alger—D. Littlejohn, C. P. Drury, I. Sicotte, A. W. Hornbogen.

Mecosta—B. L. Franklin, J. L. Burkart, W. T. Dodge.

Menominee—E. Sawbridge.

Midland—G. Sjolander, J. H. Sherk, G. E. Orth, E. J. Dougher.

Monroe—H. W. Landen, C. T. Southworth.

Montcalm—F. H. Ferguson.

Muskegon—C. J. Addison.

Oakland—Peter Stewart, A. L. Brannack, F. A. Baker, L. A. Farnham, A. B. Corbit, R. H. Baker.

O. M. C. O. R. O.—L. R. Ingleright, F. E. Abbott.

Ottawa—A. Leenhouts, W. G. Winter, R. H. Nichols.

Saginaw—W. F. English, R. S. Watson, W. H. Brock, J. W. Hutchinson, N. F. McClinton, B. B. Rowe, M. Kollig, C. H. Sample, F. Edelman, L. C. Harvie, F. W. Ostrander, J. A. McLandress, R. M. Kempton, M. D. Ryan, T. L. Ryan, A. E. Leitch, T. H. Ferguson, R. S. Jiroch, F. J. Cady, J. H. Hudson, E. M. Ling, E E. Curtis, Arthur Grigg, G. L. Tiffany, H. J. Meyer, E. M. Hunsberger, G. F. Clark, H. M. Leach, F. W. Freeman, W. L. Slack, C. E. Toshach, A. R. McKinney, J. D. Bruce.

Sanilac—D. D. McNaughton.

Shiawassee—A. S. Arnold, Jr., W. E. Ward, L. D. Hixson.

St. Clair—T. Heavenrich, C. C. Clancy, T. E. DeGurse, J. A. Attridge, C. A. MacPherson, C. B. Stockwell, W. G. Wight.

Tri—O. L. Ricker, J. F. Gruber, G. D. Miller.

Tuscola—C. N. Race, R. L. Dixon, N. H. Jackson, W. G. Sugnet, F. L. Morris, J. G. Maurer, C. W. Clark, J. E. Handy, S. B. Young, C. G. Johnson, E. A. Orr, W. G. Spohn, A. T. Seeley.

Washtenaw—Conrad Georg, Kenneth Noble, U. Wile, J. A. Wessinger, H. W. Emerson, C. C. Hyde, J. L. Garvey, R. Peterson, A. D. Wickett, C. D. Camp.

Wayne—W. A. DeFoe, J. L. Chester, E. J. Bernstein, C. C. McClelland, J. E. Davis, J. A. McGarvah, Neil Bentley, Emil Amberg, W. A. Potter, J. C. Dodds, B. R. Shurly, L. C. Donnelly, D. A. Campbell, G. Van Rhee, J. Everett King, F. Starkey, G. C. Chene, F. F. Ferris, A. S. DeWitt, R. E. Mercer, J. R. Rupp, H. H. Sanderson, Robert Rosen, S. E. Barnett, L. W. Haynes, J. S. Wendel, J. M. Stanton, W. F. Walker, R. S. Dixon, G. H. Healy, C. S. Kennedy, Worth Ross, E. W. Caster, E. P. Mills, W. F. Metcalf, R. F. Foster, W. B. Kay, R. L. Clark, G. H. Palmerlee, C. Emerson Vreeland, H. L. Clark, G. Sewell, W. Fowler, B. Friedlaender, H. A. Freund, R. Walker, R. H. Pino, C. L. Straith, N. Ginsburg, R. Connor, D. J. Levy, G. L. Connor, G. H. Wood, H. B. Garner, H. M. Malejan, R. Beattie, D. A. Cohoe, W. N. Braley, W. C. Stevens, F. N. Blanchard, G. M. Houghton, D. M. Campbell, H. F. Vaughan, B. N. Estabrook, W. R. Parker, N. O. LaMarche, P. M. Hickey, J. B. Kennedy, A. W. Blain, W. J. Cassidy, R. E. Loucks, Angus McLean, J. N. Bell, W. M. Donald; H. W. Yates, H. I. Kedney, F. B. Tibbals, H. L. Begle, J. D. Matthews, R. C. Andries, J. H. Andries, H. W. Peirce, W. Clinton, A. D. LaFerte, W. Y. Kennedy, H. Wilson, H. W. Plaggemeyer, N. M. Allen, W. F. Seeley, Henry R. Carstens, W. D. Mayer, L. J. Hirschman, C. F. Kuhn, W. T. Wilson, R. G. Owen, B. D. Harison, F. B. Walker, W. L. Hoskins, G. K. Sipe, H. L. Ulbrich, H. N. Torrey, G. L. Kiefer, G. C. Penberthy, L. I. Condit, G. E. Frothingham, B. Monkman, J. Hamilton Charters, R. L. Schorr, J. F. Hartz.

Public Health—Bruce Millar, F. M. Meader, R. L. Kahn, William C. Hoad, Elsa T. Schueren, Grace Ross, Clara A. Stevens, H. F. Romain, E. L. Gamble, R. W. Pryer, G. F. Palmer, F. E. DeVoist, F. O. Adams, C. C. Young, B. Moll, J. R. Pollock.

Exhibitors—Victor X-Ray Corporation, J. P. DeMerse, Chicago, Ill.; Medical Protective Co., C. W. Garwood, Fort Wayne, Ind.; C. A. Roth, Michigan Mutual Hospital; A. J. Machay; The Kolynos Co., A. G. McGinn, New Haven, Conn.; Horlicks Malted Milk, J. Hanson, Racine, Wis.; R. G. Fordyce, Chicago, Ill.; R. J. Gordon, Dorchester, Mass.; American Surgical Specialty Co., H. Thomedsan, Chicago, Ill.

Guests—M. P. Ravenel, T. Hubbard.

Visitors—C. D. Selby, R. W. Elliott, A. R. Lincoln, Elizabeth Verbeck, Lillian Nichols, J. G. Blue, H. L. Oakley, S. L. Morgans, L. B. Harrison, Elba L. Morse, I. Armstrong, C. W. Harris, G. O. Farrant, A. V. Schiffer, Allen Shoenfield, C. A. Butts, G. A. Blakeslee, W. F. Petrie, C. F. Karshner, W. J. V. Deacon.

POSSIBILITIES OF SUBNORMAL GIRLS.

Training is the key to the situation. A large proportion of the borderline cases will never be cared for in institutions. Their training should begin in the special classes of the public schools. From there the natural step would be directly into some form of occupation, under the guidance of the after-care worker. Agriculture, domestic service, and simple routine factory work are the types of occupation best suited to them. Industrial work, without training or supervision, will not produce satisfactory results. If the industry is unwilling to assume the expense of training such a group of workers, it would be well worth while for the state to pay the salary of a director, as is often done in Americanization classes, leaving the industry to provide the work and the overhead.

There is no more practical or less expensive method of providing for the large numbers of defectives who must remain in the community. We know that they are incapable of assuming responsibility. They are children who will never grow up. The majority of them are not vicious. They are potential criminals only because they are easily influenced and the victims of environment. The responsibility is ours. We must not allow them to drift into idleness and crime. By providing proper supervision and occupation, we may be able to render them self-supporting, useful members of the community. (Mental Hygiene, April, 1921—E. B. Bigelow).

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July, 1921

Editorials

PRESIDENT

WILLIAM J. KAY

1921-1922

The election of Dr. William J. Kay of Lapeer, as President of our Society for the coming year was without opposition and with spontaneous unanimity. This action records the esteem and respect with which he is held.

We are not indulging in a recitation of his pedigree, schooling, medical education, practice or civic relations. These are known to our members and need no repeating.

For fifteen years Dr. Kay has been a member of the Council, serving as Chairman for four years. The time and effort he expended in organizational activity has been dominated at all times by his sincere desire to be of service to his fellow practitioners. Selfish motives never governed him. His labors were all free from personal dominancy. He sought to achieve for the good of his fellow man and impregnated his every act with clear judgment, fairness and a constant eagerness to attain widespread progress, harmony and betterment. He never failed to obtain and always held the confidence of his confreres. The respect of all men is his. We regretted when he announced that he desired to be relieved of his duties as Councilor. His election as President is the Society's expression of appreciation for all that he has done for it.

We are certain that during his term as President the Society will witness an exhibition of Dr. Kay's continued labors in the profession's behalf. There will be exhibited a spirit of constructive betterment. We assure him of a willingness on the part of our members to subscribe to his administration their loyal support. We are indeed honored in having Dr. Kay as our President.

PRESIDENT'S COMMITTEE APPOINTMENTS.

President Kay announces the following as his committee appointments for the ensuing year. Chairman and members thus appointed are requested to accept this announcement as personal notification and to convey their acceptance to the Secretary. President Kay also desires it to be understood that these are not alone honorary appointments. He rightly expects and feels that intensive effort should characterize the activities of these committees. Will the appointees cause the year's work to record that result?

REVISION OF CONSTITUTION AND BY-LAWS.

W. T. Dodge, Chairman ----------Big Rapids
C. E. Boys ----------Kalamazoo
F. C. Warnshuis ----------Grand Rapids

REGIONAL CLINICS.

E. L. Eggleston, Chairman --------Battle Creek
F. C. Warnshuis ----------Grand Rapids
W. H. Marshall ----------Flint

PUBLIC HEALTH.

C. C. Slemons, Chairman --------Grand Rapids
D. J. O'Brien ----------Lapeer

LEGISLATION AND PUBLIC POLICY.

J. B. Kennedy, Chairman ----------Detroit
J. H. Meyers ----------Saginaw
G. L. LeFevre ----------Muskegon
C. D. Munroe ----------Jackson
W. K. West ----------Painesdale

VENEREAL PROPHYLAXIS.

Udo J. Wile, Chairman ----------Ann Arbor
G. M. Byington ----------Lansing
A. H. Rockwell ----------Kalamazoo

TUBERCULOSIS.

Herbert M. Rich, Chairman ----------Detroit
E. B. Pierce ----------Howell
H. J. Hartz ----------Detroit
William Kerr ----------Bay City
J. Hamilton Charters ----------Houghton
William DeKleine ----------Flint
Harlan MacMullen ----------Manistee

WILLIAM J. KAY
President 1921-1922

CIVIC AND INDUSTRIAL RELATION.

G. E. Frothingham, Chairman ----------Detroit
C. D. Munro ----------Jackson
R. H. Nichols ----------Holland
W. H. Sawyer ----------Hillsdale
J. D. Bruce ----------Saginaw
J. D. Riker ----------Pontiac
F. B. Walker ----------Detroit
C. D. Brooks ----------Detroit
Guy Johnson ----------Traverse City

MEDICAL EDUCATION. -- -- --

Hugh Cabot ----------Ann Arbor
W. H. MacCraken ----------Detroit

THE MICHIGAN PLAN OF MEDICAL TRAINING.

Anent the so-called plan for the Medical Department of our University as outlined by President Burton at the abbreviated conference (?) last January we impart the following comment and criticisms expressed during the Boston Session of the American Medical Association. President Work in his annual address stated:

"That governments, through their teaching universities, may not justly, for a fee, attract patients for medical treatment. It is the function of a teaching college to train physicians, and scatter them for public use, and to instruct, develop and protect them as alumni in their several places.

The duty of a medical college to its graduates does not end with commencement day; and certainly it is no part of that duty to divert patients from the graduates whom it has sent out with its seal, approving their qualifications for similar service. Instead, its duty is to assist them further in qualifying for their work.

It cannot draw the sick to a common center for pay, in order to augment the salaries of its teachers, without breeding distrust, relieving citizens of their proper sense of responsibility to their neighbors, and incurring the just antagonism of its alumni.

Dr. Bevan of Chicago, Chairman of the Council on Medical Education made the following statement:

There is one important matter which in a way I hesitate to speak to you about. It is a matter that we have been considering more or less for the last ten years with a great deal of interest. I refer to the matter of outside interference with medical education, which I think must be very frankly put before you at this time with the request that definite action be taken later. I desire to refer to a disturbing influence which has been introduced into medical education in the last few years, and which has become in a way a menace to our progress along sound lines. I refer to the introduction of a scheme of organization of the faculties of our medical colleges, which has been introduced by the great educational foundations, and by some of the state universities.

I shall refer especially to the plan of all-time clinical instruction. This plan did not originate in the medical profession. It originated outside the medical profession, and unfortunately it has been forced upon the situation largely by money. It is a subsidized plan which has been presented to universities with the statement that they would be given one or two millions of dollars or more, provided they would adopt the all-time clinical plan in their scheme of organization. To be sure, the originators of the plan have presented it as an experiment, but it has not been a fair experiment. A scientific experiment necessarily requires a control. There has been no control here. If, on the contrary, the great foundations would take three schools and give each of them two millions or five millions of dollars and put them on the all-time clinical plan, and another three schools of the same caliber and give each of them the same amount of money and allow them to develop under some plan which has been the outcome of the experience of medical educators the world over, the plan that one might refer to as the Trousseau plan, the Billroth plan, the Osler plan, a plan that has developed from the practical experience of medical educators, it would then be a fair experiment. So far the plan has been introduced at Johns Hopkins and Yale, at Washington University in St. Louis, and it has been adopted by the University of Chicago, and by Columbia University. I believe also the new university of Rochester contemplates adopting it, and the plan in a somewhat modified way has been adopted by some of the state universities, notably the University of Michigan.

This plan has not been a success. I do not hesitate to say that it has been a failure. It has not the support of the medical profession. I fail to find that it has anywhere the support of the great teachers of medicine, or the great teachers of surgery, or the great teachers of the medical and surgical specialties. The plan has been backed largely by men who are not medical men, and by men, who, if they are medical men, are connected with laboratories. It is a very expensive plan. Its cost is out of all proportion to the results that are obtained in medical education.

I think the time has arrived when we should plainly analyze this situation without any partisanship and attempt to find the best plan, and that best plan when found should be adopted by the medical profession. We should make it very clear to the outside agencies who are urging and subsidizing their special plans that the organized medical profession cannot adopt any plan of medical education that is not in keeping with the honor and dignity and best interest of the medical profession.

One weakness of the all-time clinical plan is the grotesque proposition that the all-time clinician in one of these schools is to accept fees from well-to-do patients and the rich, but that these fees are not to go to the individual who renders the service, but to the institution. This becomes in the hands of the great foundations, even though an experiment, a menace in this way; it has impressed the boards of trustees of universities who are not familiar with medical practice and with medical education as the plan to adopt merely because it is urged and endorsed by the great educational foundations.

It has been applied in a hybrid form recently in the University of Michigan with disastrous effects. The University of Michigan is planning to enter the field of medical practice. It contemplates building a hospital of 600 or 1200 beds, and putting salaried men at the heads of the clinical departments in the institution. These salaried men are to take care not only of the poor, but also of the well-to-do and rich. In other words, they are distinctly entering into competition with the medical men of the state. It is not in the best interests of medical education. The time has come when the medical profession should take a definite position and say that this plan is not sound, and that it is not logical; that it is not in the best interests of the medical profession and that it cannot be accepted.

You want to remember, Mr. Speaker and gentlemen of the House of Delegates, that medical education has made very great advances not because of any outside influence, but because of the work done by the medical men themselves.

I have no feeling against the agencies that have introduced this innovation, but I am loyal to the best interests of medical education and to the best interests of the medical profession itself. The time has come when we should franklyl analyze the whole situation and attempt to find, independently of anything else, the soundest and the best plan of organization of our medical schools.

In the development of the medical education of the future, the great medical profession will be little influenced by subsidized plans urged by endowed propaganda from outside agencies, but will be controlled by the experience and advice of the great laboratory workers, the great clinicians, the great teachers who are on the firing line of medical progress and are in touch with the needs of medical education and medical practice."

From the foregoing it becomes apparent that objection to the proposal of President Burton and certain faculty members is well founded.

We still maintain that the profession has a right to express its opinions and proffer its recommendations. They merit consideration and are entitled to more than passing attention. Those in charge at the University cannot, and must not, rudely and inconsiderately belittle or ignore the physicians of Michigan. We continue to urge a true conference and discussion, void of dictatorial attitude that will construct and institute a feasible plan. A determination to construct a policy that will create a spirit of harmony and united action. Will President Burton and the Dean invite and co-operate to that purpose?

OUR ANNUAL MEETING.

Those in attendance, and there were over four hundred, have been enthusiastic in their praise of the entire programme of the annual meeting at Bay City. Ideal conditions prevailed and the hospitality of the profession of Bay City was most cordial. The work of the scientific sections was of high standard with discussions that were more than perfunctory remarks.

The House of Delegates expedited its work and formulated a very constructive programme which will enhance the interests of all our members. The reader is referred to the official minutes contained in this issue and is urged to carefully read that report.

We do not know of another meeting that accomplished the realization and expression of the need of co-ordinated action as has this annual session. There has been recorded a forceful sentiment and an earnest desire for a uniform expression of effort and the attainment of definite ends for the good of the public and the profession. Certainly a promising plan of activity has been inaugurated. It remains for each member to do his part, for then will its consummation be effectively achieved. The year bids well to be a most active one. This annual meeting will be its inspiration.

BOSTON A. M. A. MEETING.

With 5461 doctors registered, splendid buildings for section meetings, genial hospitality on the part of the Boston profession, efficient work by the Association's officers and delegates who were seeking how best to solve the profession's problems—with these outstanding features the Annual Meeting of the American Medical Association was a most inspiring and profitable meeting. We would that we had the descriptive power to convey the inspiration that the meeting inspired. We have nothing but praise for every activity and the spirit that prevailed.

The election of Dr. De Schweinitz as Presi-

dent-elect bestowed merited honor upon a deserving scientist. The House of Delegates met in a dignified manner the questions that confronted that body. Its enactments will tend to best solve the profession's problems. The stand taken on State Medicine and its allied prostitutes is progressive and constructive. The plans formulated and activities advised for improvement in medical health and public education are met with general approval. The year's work of the several Councils revealed vast accomplishments. It was clearly evident that our National organization is indeed a constructive body.

Michigan's delegates were present at all the sessions of the House and were more than passive. A goodly number of Michigan physicians registered and participated in the scientific programme. The next annual meeting will be held in St. Louis.

Editorial Comments

During our State Meeting the Lincoln Motor Car Co. of Detroit, generously placed two of their splendid cars at the service of President McLean.

We will publish in our next issue the complete roster of officers and committees. They are being omitted in this issue on account of a change that will be made in printers.

One hundred twelve Michigan members registered at the Boston A.M.A. meeting. This was a splendid showing. Michigan has always been well represented at the National Meeting.

The following editorials appeared in local papers. We are reprinting them for our members' information and as a record.

A PLACE STILL FOR THE FAMILY DOCTOR.

Dr. Angus McLean, speaking at Bay City, expressed the opinion that in a few years the general medical practitioner would be catalogued with the rarities.

We might have agreed with him a short time ago. But not now. There seem to be signs that specialization in medicine is compounding its own fatal draught. It has the effect of making its practitioners think that what they specialize upon is the one important department of the profession, all others insignificant. The common sense of patients revolts against the idea. Beyond the influence of the doctor's office, they remember that they have heads as well as livers and lights, stomachs in addition to joints, backbones that can acquire aches just as unpleasant as the troubles that take up squatter's rights in the lymphatic system.

The great merit of the old-fashioned family physician was that he maintained a fine sense of proportion. He treated mumps and set broken legs. He prescribed for rheumatism and sat up all night with cases of diphtheria. He saw the human tenement as a whole and was not the least inclined to exaggerate the importance of the windows, the doorway and the plumbing to the exclusion of whatever else went to make up the edifice. The character of the work he performed prevented all that. And, as everybody must concede—doctors as well as laymen—the family physician commanded a position of high respect, love and loyalty.

A reaction is proceeding in business, engineering and other callings against undue concentration. It is recognized that such specialization, though it developed marvelous expertness, has made men one-sided. We cannot doubt that medicine will have the same experience.—Detroit Journal.

McLEAN URGES DOCTORS TO COMBAT STATE MEDICINE.

A widespread educational campaign conducted by physicians and surgeons to offset the insistent propaganda for compulsory insurance (state medicine) and the placing of the drugless-healing cults on a par with the licensed M.D. in the eyes of the law was recommended to the members of the Michigan State Medical Society at their annual convention in Bay City this week by Dr. Angus McLean, president of the society. Dr. McLean told of the efforts made by chiropractors and osteopaths at the regular session of the present legislature and how they were barely defeated and urged the society to name a committee to take charge of a state-wide defensive campaign. He predicted that the next regular legislative session would see the osteopaths and chiropractors out in full force and warned his hearers that the medical profession of Michigan must be better prepared to meet their attacks.

Despite the fact that more progress has been made in medical science in the last 30 years than in any similar period in the world's history, he said, there exists among millions of the population an antipathy toward the profession. He referred to recent statements that 40,000,000 persons in this country are believers in drugless healing and went on: "Should we not make a psychological dissection of the public mind to discover why there is more sympathy shown towards these cults than to scientific medicine? If it is that medicine and the practice thereof has changed in the last 25 years so that it does not appeal to a large portion of the laity, let us enquire and find why?"

One of the most important of Dr. McLean's suggestions was that a committee should be appointed to consider the question of fees. "Should we not have a committee on fees appointed from our own society, say a committee of seven? This committee should take this matter under consideration and establish an outline of fees that would regulate like charges made for medical services and establish a maximum fee under certain conditions."

The tendency toward specialization in the various fields of medicine and surgery, which has hit the old-time general practitioner and family physician a hard blow, was touched on by Dr. Mc-

Lean, who also presented figures compiled at a recent meeting of hospital and public health authorities in Chicago that showed that Michigan's supply of hospital beds, even in a year of general prosperity such as 1920, was more than adequate. He sharply denounced closed hospitals, such as the Ford Hospital, of Detroit, and the members of their staffs, saying of the latter: "They are more anxious to bring profit to their employer than honor to medicine. If this system of contract medicine is endorsed it will only be a short time until our large department stores have a medical department with two or three hired physicians, who will examine and treat all patients at a rate of say $5 per head, the $5, of course, going to the employer." Dr. McLean also declared that the system in vogue in the closed hospitals destroyed the much-desired personal relationship between doctor and patient. "The patient is simply known by a number, the doctor also," he said.—Detroit Saturday Night.

THE VANISHING GENERAL PRACTITIONER.

If the tendency toward excessive specialization which Dr. Angus McLean finds in the medical profession were a phenomenon peculiar to it, successful prescription would be more easy than it is. But this tendency is only one manifestation of a practically universal trend in America. Today even the day laborer specializes if he has a chance to do so. The all around workman is becoming as rare as the family physician whose passing Dr. McLean justly mourns. Musicians, business men, lawyers, artists, actors, scientists, more and more are branching from the main highway into narrow paths. There are specialists even in religion.

Dr. McLean thinks that a large determinative influence in thinning the ranks of the general practitioners is the question of remuneration. As the doctor puts it, the family physician has become merely a "bird dog" for the specialist who gets the fat fees, and the medical student of the future will "seek to attain the maximum financial reward." Undoubtedly this is true in many cases. Physicians are only human beings, and it is not to be wondered at that they follow the example set them by the remainder of the members of their race.

Yet we are unwilling and unable to believe that the desertion of the field of family doctoring is wholly or even chiefly due to desire for money, because we know a great many physicians who are anything but sordid, and who are self-sacrificing and an honor to their profession. Some of these are specialists who have become such, not in order to grow rich, but because they have felt themselves peculiarly fitted to work expertly in a particular field. It is an exceedingly good good thing for humanity that they have felt this way. To the researches of specialists are due most of the biggest advances in medical science; and because of these advances thousands of people walk the streets in health who otherwise would be invalids or in their graves.

We cannot get away from the conviction that the larger reason for relative desertion of the field of general practice is the growing wideness of that field and the correspondingly sharp realization among medical students that a thorough knowledge of all branches of modern medicine is practically unobtainable. Under such circumstances the average youth decides against a career which he fears will make him a jack of all branches and a guild master of none, so he lays his plans to specialize. Perhaps the only way to overcome the excessive swing toward specializing is to evolve in some way a specialization in general practice.

The chiropractors of Michigan recently held a meeting in Jackson. The alleged "father" and "high-priest" of the cult, from Davenport was present and is reported to have delivered an address on "selling yourself." The following are extracts of newspaper reports of the meeting:

"Give me the public press and the power of public opinion and you may write as many laws as you please upon the statute books."

"Launching of a public campaign in Michigan will bring the malice of the organized medical profession against you and that some of you may be arrested and jailed as was done in California. But, why should you or I fear arrest and jail if it is for a principle. Serious times are before us and the next five years will be the worst."—We may expect a chiropractic MacSwinney to rise up and attempt a hunger act.

A sum of $2,500 was pledged for publicity with the National organization pledging a like amount.

The "Fountain Head" has still to learn that Michigan will cause their next five years to be filled with plenty of grief.

HIGHLAND PARK PHYSICIANS' CLUB.

Resolved:

That the Highland Park Physicians' Club, of Highland Park, Michigan, is emphatically opposed to "State Medicine" and to any scheme for "Health Centers," "Group Medicine" and "Diagnostic Clinics," either wholly or partly controlled, operated, or subsidized by the State or National Government; and that a copy of this resolution be presented to the delegates to the Michigan State Medical Society from the Wayne County Medical Society, and to the Secretary of the Michigan State Medical Society, and to each of the delegates to the American Medical Association from the Michigan State Medical Society.

Correspondence

Editor of the Journal,
Michigan State Medical Society,
Grand Rapids, Mich.

I noticed in reading the Journal of June, 1921, a letter from E. M. Cunningham who states that a certain hospital refused to give X-ray plates to the patient.

In the first place the X-ray plates are the property of the physician or institution making them. The patient gets a medical opinion based upon the X-ray plates. In my opinion the hospital was quite correct in refusing to give the plates to the patient and the proper procedure should be as follows: The consulting physician

should ask the laboratory for permission to take the X-ray plates and the laboratory in turn will get permission from the physician who referred the case, or this permission may be obtained directly by the physician last consulted and the laboratory so informed at the time of making the request for the plates. This will seldom, if ever, be refused.

The diagnosis of the case in question was undoubtedly arrived at by the examination with the fleuroscope and by plates. For this reason the plates alone would probably be of but little value even in the most expert hands.

It is a well-known fact that the physician referring a case to an X-ray Laboratory expects that any plates made shall be kept on record for his inspection at any time and for this reason the laboratory is held responsible for them. As stated above they belong to the laboratory but are of no value to it except in cases that offer unusual scientific interest.

The natural tendency of the roentgenologist is to accommodate any patient as the average plate is useless to him, but he realizes the necessity of keeping it in his possession unless otherwise ordered by the physician referring the case.

As the doctor knows I have no connection with this case but this situation arises so frequently with all roentgenologists that I thought it worth while to attempt an explanation.

Yours very truly,

V. M. Moore.

Deaths

Doctor B. R. Hoyt was born in Walled Lake, Michigan, March 3, 1849, and died in Detroit May 19,1921. He graduated from the University of Michigan in 1872 receiving the degree of Doctor of Medicine. He came to Detroit immediately after graduation and has practiced there ever since.

He was for many years a member of the Detroit Board of Education and at one time was its President. Mayor Maybury appointed him a member of the Parks and Boulevard Commission. The Doctor was a life long and enthusiastic Democrat, a 32nd Degree Mason and a member of the County and State Medical Societies.

He is survived by his widow, three daughters (Jeanette, Margaret and Mrs. Herbert Seymour), a brother (James), and a sister at Walled Lake.

Doctor Howard W. Longyear was born in Lansing, July 24, 1852 and died in Detroit, June 2, 1921. He was educated at the University of Michigan and Columbia University, receiving the degree of Doctor of Medicine from the latter institution in 1875. He continued his studies in Berlin and Vienna and spent some time with Lawson Tait of Birmingham, England.

On returning to Michigan, he became Medical Superintendent of Harper Hospital and remained there three years. In 1890 he gave up general practice and specialized in gynecology and abdominal surgery. He was Consulting Physician to the Woman's Hospital, Consulting Gynecologist to Providence Hospital and Consulting Surgeon to Harper Hospital. For four years he was a member of the Detroit Board of Health.

He was a member of the American Medical Association, the Michigan State Medical Society, the Wayne County Medical Society, American Surgical Society and the American Gynecological Society. He was also a member of the Detroit Club, the Detroit Country Club, the Grosse Pointe Riding and Hunt Club, the Old Club, and the Huron Mountain Club.

Doctor Longyear was married in 1880 to Miss Abbie Scott of Chicago. He is survived by his widow, two daughters (Mrs. T. A. McGraw, Jr., and Mrs. W. B. Palmer, Jr., both of Detroit), one brother (John M. Longyear of Marquette), and a sister (Miss Ida Longyear).

State News Notes

COLLECTIONS.

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Rerefence any Bank in Battle Creek.

The Detroit College of Medicine and Surgery held its 53rd annual commencement exercises in Arcadia Hall, Detroit, June 17, 1921. The degree of Doctor of Medicine was conferred on 53 of its students. The invocation was offered by Rev. John McCarroll (M.D.) Canon of St. Paul's Cathedral. Colonel William L. Kellar, Army Medical School, Washington, D. C., spoke of the progress of surgery during recent years. Doctor W. H. MacCraken, Dean of the Faculty, presented the candidates for the degrees. The Hipprocratic Oath was given the class by Doctor A. P. Biddle and Captain Joseph Stringham, President of the Board of Education, conferred the degrees. Doctor Channing Barrett of Chicago gave the young physicians some sound advice and Doctor J. B. Kennedy delivered the faculty message.

The following physicians were recently elected Directors of the Michigan Tuberculosis Association: Doctors E. B. Pierce, of Howell, W. E. Coates of Kalamazoo, H. J. Hartz of Detroit, E. R. Venderslice of Lansing, V. C. Vaughan of Ann Arbor, Herman Ostrander of Kalamazoo, J. H. Kellogg of Battle Creek, O. L. Ricker of Cadillac, C. H. Johnston of Grand Rapids, A. F. Fisher of Hancock, Arthur Holliday of Traverse City, A. S. Warthin of Ann Arbor, R. B. Harkness of Houghton, William DeKleine of Flint, C. C. Parnall of Ann Arbor, L. L. Hubbard of Houghton and C. L. Finch of Marquette.

The May 1921 number of the Harper Hospital Bulletin contains the names of the entire staff. Doctor E. W. Haass is Chief of the Department of Medicine; Doctor Max Ballin, Chief of the Department of Surgery; Doctor George Kamperman, Chief of the Department of Obstetrics and Gynecology; Doctor George E. Frothingham, Chief of the Department of Ophthalmology,

Octology and Rhino Laryngology; and Doctor P. M. Hickey, Chief of the Department of Pathology and Research.

The American Medico-Psychological Association held its annual meeting May 31 to June 3, 1921, in Boston. It changed its name to the American Psychiatric Association. The American Journal of Insanity will hereafter be the official organ and will be published under the name of the American Journal of Psychiatry. The following officers were elected: President, Doctor A. M. Barrett, of Ann Arbor; Vice-President, Doctor H. W. Mitchell, of Warren, Pa.; and Secretary-Treasurer, Doctor C. F. Haviland, of Middletown, Conn.

The Michigan State Board of Registration in Medicine held an examination in Ann Arbor, June 14, 15, 16, 1921. 153 applicants (143 from U. of M. and 10 from outside schools) took the primary examinations and 85 applicants (75 from U. of M. and 10 from outside schools) took the finals. The above record of applicants for license does not indicate that the higher requirements of preliminary education have affected the number of applicants qualifying for medical license. This is fully 100 per cent. greater than in former years.

Henry F. Vaughan, Health Commissioner, left Detroit June 2, 1921 for a three weeks' tour of the East during which he will inspect hospitals in Boston, New York, Philadelphia and Baltimore. On his return he will make his final recommendations for the new Municipal Hospital to the architect, Mr. Albert Kahn. It is hoped to break ground the latter part of this summer. It will take about 2 years to complete the hospital buildings. Doctors Francis Duffield and Hugo A. Freund, members of the Board, accompanied the Commissioner.

At a meeting of the Board of Regents of the University of Michigan, April 29, 1921, it was unanimously voted to request Dean Wilbert B. Hinsdale to continue his services to the Homeopathic Medical School for the year 1921-1922. The Dean had previously tendered his resignation and it had been accepted by the Board of Regents as the Doctor was very insistent that it be accepted. After prolonged consideration, however, the Board of Regents urgently requested Dean Hinsdale to continue for another year and much against his wishes, he generously acceded to the request.

At the annual meeting of the Michigan Association of Public Health, held in Bay City May 26, 1921, the following officers were elected: President, Doctor H. B. Neagle of Jackson; Vice-President, Doctor R. M. Olin, of Lansing; Secretary-Treasurer, Doctor F. M. Meader, of Detroit; Directors Doctors Guy L. Kiefer, of Detroit, Prof. W. C. Head of Ann Arbor, Doctor B. H. Bartlette of Lansing, Doctor J. A. Kehe of Bay City, and Doctor C. C. Young of Lansing; and member of Board of Directors, Doctor C. C. Slemons of Grand Rapids.

The 32nd annual clinic of the Alumni Association of the Detroit College of Medicine and Surgery was held June 13 to 17, 1921, in Detroit. June 13 the clinic was held at St. Mary's Hospital in charge of Doctor E. J. Panzer; June 14 at Harper Hospital in charge of Doctor H. W. Pierce; June 15 at Providence Hospital in charge of Doctor C. W. Husband; June 16 at Grace Hospital in charge of Doctor J. A. McGarvah; June 17 at the Receiving Hospital in charge of Doctor C. H. Oakman (morning) and at the Herman Hospital in charge of Doctor C. K. Sipe (afternoon). Buffet lunches were served by the staffs of the various hospitals.

The following officers were elected by the Michigan Hospital Association at its annual meeting in Ann Arbor, June 8, 1921: President, Doctor Merrill Wells, Supt. Blodgett Memorial Hospital of Grand Rapids; and Vice-Presidents, Miss Lydia Thompson of Saginaw, Miss Carrie L. Eggert of Detroit; and Miss Josephine Halverson of Port Huron.

Among the active pall bearers at the funeral of Doctor H. W. Longyear, June 4, 1921, were the following physicians: Doctor C. B. Burr of Flint, Doctors B. R. Shurly, W. R. Parker, and E. T. Tappey of Detroit. Doctors A. P. Biddle, Hugo Freund, R. W. Gillman, L. J. Hirsghman, P. M. Hickey, C. G. Jennings, A. F. Jennings, A. D. Holmes, George Kamperman, R. A. Newman, Delos Parker and Wadsworth Warren were honorary pall bearers.

A large oil painting of Doctor T. A. McGraw, former President of the Detroit College of Medicine and Surgery, was presented to the Colloge by the Class of 1906, at a dinner at the Medical Bldg., June 15, 1921. Doctor A. W. Blain made the presentation address and Doctor Angus McLean accepted the picture in behalf of this institution.

Commander Wilson of the American Legion, Department of Michigan, announced the appointment of Doctor A. H. Garvin of Detroit, as a member of the Advisory Committee of the Roosevelt Community House, which is to be taken over by the Legion, November 1, 1921, for hospital purposes.

At the second annual meeting of the Michigan Association of Industrial Physicians and Surgeons, Bay City, May 24, 1921, the following officers were elected: President, Doctor F. C. Warnshuis; Vice-President Doctor Guy L. Kiefer; Secretary-Treasurer, Doctor G. C. Pemberthy; Directors, Doctors R. C. Stone and H. N. Torrey.

The students of the Detroit College of Medicine and Surgery during April and May were given four clinical lectures on Endocrinology by Doctor T. A. McGraw, Jr. The first lecture was on the histology; the second and third were given over to the presentation of cases of cretinism, myxedema, achondroplasia, hyper and hypo

pituitarism; and the fourth took up the question of treatment.

The Michigan Tuberculosis Association held its annual meeting, May 29, 1921, in Lansing. The following officers were elected: President, Doctor William DeKleine of Flint; First Vice-President, Doctor A. F. Fisher of Hancock; Second Vice-President, Doctor J. H. Kellogg, of Battle Creek; Treasurer, Doctor H. J. Hartz of Detroit; and Auditor, Doctor A. S. Warthin of Ann Arbor.

Doctor David L. Edsall, Dean of the Harvard Medical School, has announced the establishment of the degree of Doctor of Medical Science (M.S.D.) to designate men who have specialized in research work and laboratory development of medicine rather than the clinical branches.

Doctor John P. Bland of Adrian, tried for the second time on the charge of manslaughter in connection with the death of Katherine Smith of Round Lake, was acquitted by the Circuit Court Jury at Adrian, May 25, 1921. Doctor J. P. Kennedy of Detroit was medical counsel for the defense.

The First District Dental Society passed unanimously June 2, 1921 the following resolution: That a Committee of 3 be appointed to confer with the Legislative Committees of the Michigan State Medical Society, the Michigan Dental Society and the Michigan State Pharmaceutical Association.

The contract for the new Children's Hospital at Northville, to be built in connection with the City's Tuberculosis Sanitarium, was let June 2, 1921, to A. E. Wood & Co., for $162,000 (the estimates were for $240,000). The hospital will be a 100 bed one of the bungalow type, with a two story administration. It will be used chiefly for children with tuberculosis of the bone.

At the annual meeting of the Michigan Pharmaceutical Association, held in Detroit in June, a committee of three was appointed to confer with the Legislative Committee of the Michigan State Medical Society concerning a closer relationship between these societies on public welfare work.

At the annual meeting of the Detroit Medical Club, May 19, 1921, the following officers were elected: President, Doctor R. C. Jamieson; Vice-President, Doctor W. J. Stapleton; Secretary-Treasurer, C. S. Wilson; and Directors, Doctors Robert Beattie, T. A. McGraw, Jr., and A. S. DeWitt.

June 2, Dr. Hugh Cabot, Professor of Surgery at the University of Michigan, was appointed Dean of the Medical School. The present Dean, Doctor V. C. Vaughan, resigned several months ago after serving the University faithfully and well for 34 years.

The Detroit Academy of Medicine were entertained June 21, 1921 by Doctor and Mrs. W. H. Morley at their home, "Red Lane Farm," West Bloomfield. Doctor T. A. McGraw, Jr., gave a paper with lantern-slide demonstration on "The Relation of the Endocrine Glands to Body Growth."

Doctor E. B. Forbes finished the bowling season at the Detroit Athletic Club with the best individual average (192). He was also a member of the team which won the senior championship of the Club. Doctor R. K. Johnson was a member of the junior championship team.

The Harbor Beach Hospital was opened for the reception of patients May 8, 1921. The hospital is equipped with every modern convenience. The Staff is under the management of Doctor Van Nuys (Superintendent). Harbor Beach Hospital is open to all physicians.

"Home Coming Week" will be an annual affair at the Mayo Clinic. The first one was held May 18, 19, 1921. All former associates and assistants are invited. Doctor J. W. Vaughan of Detroit read a paper at the first of these annual reunions.

The Staff of the science departments of the Detroit College of Medicine and Surgery gave laboratory demonstrations, followed by a luncheon, June 15, 1921, to the Alumni of the Detroit College of Medicine and Surgery.

Doctor F. R. Starkey, of Detroit, attended the American Medico-Psychological Association, held in Boston, May 31, to June 1, 1921 and the American Medical Association the following week.

Doctor C. W. Edmunds of Ann Arbor has resigned as Assistant Dean and Secretary of the Medical Department of the University of Michigan. He still retains his Professorship of Materia Medica and Pharmacology.

Mr. C. W. Toles of Lansing, son of Doctor L. W. Toles, was married June 10, 1921 to Mrs. Grace Stearns Forbush of Detroit. They will make their home in Marysville.

Doctor H. M. McCandliss, medical missionary at Hainan, China, spoke on "Are Medical Missions Needed Among the So-Called Backward Countries" at the First Presbyterian Church, Detroit, June 19, 1921.

Mercy Hospital, Bay City, which recently dedicated its new hospital, has been standardized according to those standards of the American College of Surgeons and the institution is now operating under the newly appointed staff.

Doctor and Mrs. Charles F. DuBois of Alma, announced the last of May the birth of a daughter, Dorotha Ann. Mrs. DuBois was formerly Miss Arline E. Hall, a nurse at Harper Hospital, Detroit.

The annual dinner of the Highland Park Medical Society was held at Detroit Golf Club, June 4, 1921. Doctor E. P. Mills was Toastmaster. The Doctors' wives were present.

Doctor and Mrs. J. D. Brook of Grandville, left the latter part of May to visit the Doctor's brother and his wife in Jersey City. From there Doctor Brook went to Boston and attended the meeting of the American Medical Association.

The Class of 1921 of the Detroit College of Medicine and Surgery lost two of its members since the first of January. Mr. R. B. Partridge died in February from appendicitis and Mr. A. J. Burr died in April from pneumonia.

Doctor R. E. Loucks of Detroit attended the official reception of Mme. Currie, given by the New York Academy of Science in New York City the middle of May.

The Michigan State Board of Registration in Medicine (six members and the Secretary) carefully re-inspected the Detroit College of Medicine and Surgery, May 19, 1921.

A Children's Open-Air Camp, housing 100 tubercular children, will be opened July 9, 1921, on the 900 acres of land owned by the City of Detroit, at Northville.

The Michigan State Convention of Veterans of Foreign Wars was held in Bay City, June 11, 1921. Doctor Clarence L. Candler of Detroit was elected Department Surgeon.

Doctor W. S. Shipp of Battle Creek spent the week preceding the State Meeting in trout fishing on the Black and Au Sable Rivers. Doctor R. D. Sleight of Battle Creek accompanied him.

Doctor J. Walter Vaughan of Detroit has been recently elected a member of the American Surgical Association. Doctors T. A. McGraw and Fred Murphy of Detroit are also members.

Doctor A. D. Holmes and family spent the early part of June in Boston. While there the Doctor attended the meeting of the American Medical Association.

Doctor W. J. Cassidy was elected Chairman and Doctor Roger Walker Secretary of the Surgical Section of the Wayne County Medical Society May 23, 1921.

Detroit has five tubercular dispensaries, 175 beds at the Detroit Tubercular Sanatorium, 205 beds at the Herman Kiefer Hospital, and 50 beds at Eloise.

June 14, 1921 the following classes of the Detroit College of Medicine and Surgery held reunions—1871, 1876, 1881, 1886, 1891, 1896, 1901, 1906, 1911 and 1916.

Announcement is made of the marriage of Dr. L. Fernald Foster, Secretary Bay County Society, and Miss Kathryn Mae Keller, of Philadelphia, Pa., Saturday, June 11.

Doctor and Mrs. B. R. Shurly opened their summer cottage at Grosse Isle, July 1, 1921.

Doctor and Mrs. Joseph A. Belanger of Grosse Pointe left the latter part of May for a five months' tour of the Pacific Coast.

Doctor W. F. Acker of Monroe lost his wife the latter part of May. She died suddenly from pneumonia.

Doctor and Mrs. Willard Hutchings of Detroit will spend the summer at Manchester-on-the-sea.

Doctor J. B. Kennedy was Chairman of the Committee having charge of the formal opening of the new Detroit Public Library, June 3, 1921.

Mrs. Robert Patterson of Ann Arbor, daughter of Doctor and Mrs. John H. Palin of Grand Rapids, died May 29, 1921.

The 46th annual meeting of the American Gynecological Society was held at Swampscott, Mass., June 2-4, 1921.

The Association for the Study of Internal Secretions held its 5th annual meeting in Boston June 6, 1921.

Doctor Seth Jones of Lansing was chosen Grand Warden by the Michigan Knight Templars June 2, 1921, at Lansing.

Doctor and Mrs. E. T. Tappey left Detroit June 25, 1921 for the Huron Mountain Club where they will spend the summer.

The Dental Bill which increases the number of members of the Board from 5 to 7, has passed both the House and the Senate.

The Detroit College of Medicine and Surgery conferred the degree of Doctor of Medicine on 53 men, June 17, 1921.

Doctor and Mrs. James A. McVeigh of Detroit left the early part of June on a motor trip to Boston, New York and Atlantic City.

The last of May the engagement of Miss Hazelle F. Haley of Chesaning to Doctor W. B. Harm, of Detroit was announced.

Mr. William A. Morse, father of Doctor Plin Morse of Detroit, died suddenly at his summer home, Otsego Lake, May 29, 1921.

A son, Malcolm Louis, was born June 8, 1921, to Doctor and Mrs. C. L. Tomsu, of Detroit.

Doctor Thomas, father of Doctor C. F. Thomas of Detroit, died May 22, 1921.

Dr. V. W. Bergstrom, Bay City, is still ill at his home.

Dr. M. Gallagher, Bay City, is quite seriously ill.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. Secretaries are urged to send in these reports promptly

BAY COUNTY.

The last regular meeting of the Bay County Medical Society before the summer recess was held Monday evening, June 6.

Routine business was transacted and the affairs of the recent State Meeting here were settled.

Dr. J. W. Gustin, the newly appointed Health Officer, spoke on the reorganization of the local Board of Health and we are looking forward to new things from this important department.

The Society offered its services to the local Boy Scouts in making physical examinations of the local 350 scouts.

Beginning in September the medical society will meet at noon-day luncheons instead of evenings.

In July the Society will hold a "Field Day and Barbecue" at the Bay Shore and hope to challenge the County Legal Society to a baseball game. We see the need of developing our social intercourse as well as the professional.

L. Fernald Foster, Secretary.

BERRIEN COUNTY.

With the beginning of the year 1921 the Berrien County Medical Society has come to life with a bang. It did not function for a number of years on account of the war and other causes. However a very keen interest has been aroused and the year began with a business meeting at which Dr. J. F. Crofton, St. Joseph, was elected President; Dr. Robert Henderson, Niles, Vice-President; Dr. R. N. Dunnington, Benton Harbor, Secretary-Treasurer. A fine banquet followed and everybody felt that the Society must function.

Monthly meetings have been held since with interesting and instructive programs. The last meeting was held in Buchanan May 19. The meetings are preceded with a dinner at 6:30 and rotate about in different parts of the county. Dr. C. E. Boys, of Kalamazoo gave a very interesting and instructive paper and lantern slide demonstration of Intestinal Obstruction. Dr. E. M. Trewin, Buchanan, Modern treatment of Tuberculosis; Dr. Abby Henderson, Niles, Factors Which Influence Public Health. All the papers showed careful preparation and were well received.

GENESEE COUNTY.

The clinical section of the Genesee County Medical Society met Thursday evening, May 12, Vice-President Wheelock in the chair. Dr. W. C. Reid of Goodrich reported two cases of Traumatic Perforation of the Intestine. The importance of early diagnosis and prompt treatment was emphasized. Dr. A. C. Blakely reported a case of "Rupture of the Uterus, in which he performed a hysterectomy successfully. Dr. R. S. Morrish read a paper on Local Anesthesia. After a brief historical review, he discussed the advantages of this form of anesthesia and described the technic usually followed.

These clinical meetings have been well attended and have proved most interesting. No more meetings of this section will be held during the summer months but they will be resumed in the fall.

The Genesee County Medical Society met at noon luncheon Wednesday, May 18, President Orr presiding. A committee was appointed to invite the State Society to meet in Flint in 1922. Dr. Marshall spoke on the need of a Psychopathic clinic in Flint. It was decided that the Society sponsor a campaign to secure funds and a committee was appointed to direct the movement. Dr. Max Peete of Ann Arbor was introduced and spoke on "Neurological Surgery." He urged the importance of early surgery if even a suspicion of brain tumor existed. He discussed the use of air injections and X-ray in diagnosis and seemed to think the procedure was not devoid of danger. The value of therapeutic radiation after operation was pointed out. In trigeminal neuralgia he condemned alcohol injections, peripheral operations and ganglion operations. He spoke of the very satisfactory results he had obtained from cutting the sensory root, and stated that the mortality was not greater than from an appendicectomy. He urged more decompressions in traumatic head cases, after shock had passed off. He gave many valuable suggestions for handling the acute edemas of the brain after trauma. For the fever he packed the patient in ice and gave about 7 ounces of saturated solution of salt by rectum. In some cases he had used a saturated Ringers Solution intravenously, 1 cc a minute for 25 cc. He cited many interesting cases of recoveries with these procedures. In hyrocephalus he was impressed with the value of small air injections and X-rays in order to make an early diagnosis. In spinal cord tumors and injuries he believed in earlier operations than have been common.

In cord cases he did not advise catheterization but allowed the bladder to overflow and an "automatic bladder to develop.

The Genesee County Medical Society met for noon luncheon at the Hotel Dresden on Wednesday, June 1, President Orr presiding. A report of the delegates to the Bay City meeting was presented and the plans for the future outlined, especially the legislative policies. A committee was appointed to make plans for our annual picnic. The President appointed the various committees to make arrangements for the State Society meeting here in 1922. The personnel of these com-

mittees assures a real reception at Flint next year. Dr. C. H. Chapell read a paper on "X-ray therapy of Infected Tonsils." He described the technic and indications. He gave his conclusions from the treatment of 23 cases.

W. H. Marshall, Secretary.

INGHAM COUNTY.

Dr. R. L. Kahn Immunologist of the State Department of Health spoke on "Recent Views on the Interpretation of the Wassermann Reaction." After briefly explaining the theory and technic of the Wassermann reaction, he indicated the prevention of haemolyzed specimens as well as anticomplementary specimens. Blood drawn under sterile conditions and permitted to clot properly will usually keep in good condition for several days, although whenever possible, physicians are urged to send corpuscle free serum to the laboratory. Specimens are anti-complementary (are capable of absorbing large amounts of complement) usually because of bacterial contamination and therefore preventables.

As to the interpretation of the Wassermann reaction, a one (+) or even doubtful (‡) positive reaction in the early primary stage of syphilis in the presence of clinical evidence, indicates specific treatment, in view of the fact that in this stage of syphilis the reaction is usually weak. It is only in the later primary stages that the Wasserman reaction becomes strongly positive. In the secondary stage the reaction is, as a rule 100 per cent. positive, while in tertiary syphilis, particularly in the late stage, as well is in latent syphilis, the reaction is in the neighborhood of 80 per cent. positive.

The designation of 4 plus is arbitrary. Some sera are as strongly positive as 40 or 50 plus, which explains why one occasionally obtains a 4 plus reaction, both before and after treatment, since these sera might be, let us say 30 plus before treatment and perhaps 12 plus after treatment. The Wassermann reaction usually becomes weaker after treatment in all cases, only in some not to a sufficient degree to render it below 4 plus.

With regards to the interpretation of a positive Wassermann reaction there are two schools: The Wile school which lays greatest stress on the clinical condition of the patient, insisting that a positive reaction indicates that one has or has had syphilis, and the other school, to which perhaps the majority of syphilologists belong, which claims that a positive Wassermann reaction indicates the presence of syphilis.

One occasionally obtains a 4 plus Wassermann reaction without any clinical evidence or history of syphilis. If every other condition which might give a positive Wassermann reaction is eliminated, (typhus fever, febrile stage of malaria, leprosy, etc.) and the reaction is repeatedly positive, it should be taken as a symptom of syphilis. Weak reactions in the total absence of clinical symptoms, is not to be taken as evidence of syphilis.

As to the Wassermann test in the newborn, the speaker did not feel certain that a negative reaction proved the absence of syphilitic infection in all cases. The fact that an infant lacks clinical evidence of syphilis at birth undoubtedly indicates a latent infection on the part of the mother. The Wassermann reaction, therefore, would probably not be positive in every case.

Dr. Kahn touched upon practically every phase of the interpretation of the Wassermann reaction and with the interesting discussion which followed, it proved to be an altogether profitable meeting.

Dr. L. W. Toles read a paper on "Focal Infections with Special Reference to the Teeth." The Doctor stated it to be his opinion that all devitalized teeth are infected sooner or later, and that some teeth may be infected and yet the X-ray plates be negative. In addition to systematic infections from teeth, he also emphasized the necessity of giving attention to pyorrhoea and the tonsils. He believed the tonsils to be foci of infection in children more frequently than in adults, and teeth more frequently in adults. He contended that all abscessed and necrosed teeth should be treated by removal or amputation of apex.

Ten cases were reported giving a variety of general conditions which were promptly relieved by extraction of teeth, in most cases crowned teeth. The conclusions were that infected teeth are the cause of many cases of invalidism and deaths, that devitalized teeth became infected sooner or later, that roots should not be devitalized for crown or bridge work, that it is impossible to treat abscessed teeth safely except by amputation of apex or removal.

The necessity for co-operation between the medical and dental profession was emphasized. The discussion was led by Dr. Rickert of University of Michigan Dental College. He reviewed the research work of the last few decades which has had so important a bearing on modern dentistry. He emphasized the fact that so much of the literature was not well founded, and attributed it to the fact that too many office desk dreamers have got by as research workers. The dental profession is divided into two schools, the East holding that all pulpless teeth are not infected while the West holds that all are infected. In Michigan the dental profession is not extreme progressive, nor extreme conservative. He holds that had the dental profession used good technic many of the present conditions would not have existed. In the past pulp removal seemed easy but the results were not seen in a few weeks or months. He has cultured hundreds of pulpless teeth and found them sterile. Negative cultures are difficult because contamination is easy. One case of pulp removal in 1889 with no infection yet was cited. This was attributed to good technic. High tribute was paid to Dr. Rosenau for his epochal work on Focal Infections. He praised the excellent co-operation between the Medical and Dental profession in Michigan and stated that patients' best interest would be served by physicians referring patients to dentists for examination and advice, and not with orders for extractions. Dentists are better prepared to X-ray teeth and interpret. Likewise dentists should frequently refer patients to physicians for examination and advice relative to general conditions. As a result of difference of opinion be-

tween members of the two professions, each will eventually know "Who's who" in the other profession and better results will be obtained.

Dr. M. L. Holm stated that Focus of Infection was not always necessary, that blood frequently found to show bacteria in the absence of any focus. He stated that we had passed through the antiseptic and aseptic epochs, and now are entering upon the study of specific immunities, which is of greater import than the presence of infection.

Dr. Miller of the Department of Experimental Medicine of Parke Davis and Co. gave a very interesting illustrated lecture on vitamines, and stated that he believed the facts gained from this study to be one of the greatest recent advances in Medical Science.

Dr. W. L. Deacon, Epidemiologist of the State Department of Health spoke on Public Health Legislation and explained the following bills which the Department was interested in having enacted.

1. County Health Officers bill.
2. Bill to provide for the manufacture and free distribution of diphtheria antitoxin by the State.
3. Transfer of Vital Statistics Department from the Secretary of State to Department of Health.

Milton Shaw, Secretary.

SAGINAW COUNTY.

Final arrangements have been made for the organization of Saginaw's Central Laboratory. It is felt that adequate local laboratory service will be of great benefit to both the hospitals and the profession.

In each hospital there will be a clinical laboratory in charge of a nurse technician who has been trained by the central laboratory director. The hospital laboratory will be responsible for routine blood and urine examinations on all patients entered. Quantitative determinations and the more detailed work will be done in the Central Laboratory.

The evening of May 10 was given over to the consideration of the possibilities and limitations of laboratory work as applied to practical medicine. The subject was very well presented by Dr. Mark Marshall of Ann Arbor and Dr. Paul Wooley of Detroit. The point was made that the laboratory does not make diagnoses, being only one part of a complete physical examination, it only points out the way.

Dr. Carney of Alma was with us and showed films of two cases of diverticultis which he had been able to demonstrate following the methods outlined by Dr. Monohan in his recent lecture here.

The Tuberculosis Society held its spring clinic May 12 and 13. Drs. Marshall, DeKleine, and Jones of Flint, and Dr. McClurg of Bay City were in charge. Local men assisted as they were needed. A total of ninety cases was examined.

The County Medical Society took an active part in the observance of National Hospital Day. A definite campaign was outlined which we hope will have some effect in attracting young women to the nursing field.

WASHTENAW COUNTY.

The regular meeting of the Washtenaw County Medical Society was held at the Barton Hills Club June 16, 1921.

Dinner was served at 6:30 p. m. The meeting was then called to order by Dr. Howard H. Cummings, President.

Dr. Peterson reported on the death of Dr. C. B. G. de Nancrede, paying a glowing tribute to the valuable and distinguished services of this great surgeon. It was voted that this report be filed in the archives of this society and a copy sent to the widow of the deceased.

On motion a committee of three was appointed to take steps to secure a memorial portrait of Dr. deNancrede to be placed in the faculty room of the Medical Building at Ann Arbor.

Dr. Udo J. Wile then made a very complete report as delegate to the recent meeting of the Michigan State Medical Society, at Bay City.

Dr. Louis Daniels was elected to membership.

Dr. Dean Loree gave a very interesting report of a case of "Extrophy of the Bladder with Transplantation of the Ureter." Discussion of this report was thoroughly gone into by Dr. Peterson. Discussion closed by Dr. Loree.

Dr. Albert D. Wickett then took up the subject of Vaccine treatment of Hay-fever and Asthma." We are greatly indebted to the work of Dr. Wickett for what he has been able to accomplish in the brief time at which he has been working with this new treatment toward the relief of Hay-fever and Asthma sufferers.

Dr. Wile opened a discussion of this paper. He was followed by Dr. Barlow, of the Mayo Clinic who gave the society some very interesting data along the line of vaccine treatment in general. Drs. Fuerstenburg and Conrad George, Jr. and also Drs. Cummings and Morrill, took part in the discussion.

Dr. Udo J. Wile, Dr. Fred R. Waldron and Dr. Dean Loree were appointed a committee to secure the Memorial Portrait of Dr. deNancrede.

Meeting adjourned. Forty-three members were present at this our last meeting of the season.

John A. Wessinger, Secretary.

Book Reviews

OPERATIVE SURGERY: John J. McGrath, M.D., F.A.C.S., Professor of Surgery, Fordham University. Sixth revised edition. 863 Pages, 369 Illustrations. Cloth, Price $8.00. F. A. Davis Co., Publishers.

This text book for a number of years has met with favorable reception by the profession and is now presented in its sixth edition thoroughly revised and up to date. It maintains all its previous merit for existence and added thereto we find that it is complete in almost every detail in relation to the recent advancements and our present day principles of surgery.

A Standby

TWENTY years ago Parke, Davis & Co. introduced to the medical profession the active principle of the suprarenal gland—Adrenalin.

Little was known at that time concerning its physiologic action and therapeutic application. Today, after years of laboratory research and clinical experimentation, Adrenalin holds a foremost place among the standbys of the materia medica.

For the relief of the paroxysm of asthma, for the control of hemorrhage, and in the treatment of shock and collapse, Adrenalin is the first thought of the therapeutist. In organotherapy it has certain special indications, and as a synergist to local anesthetics it has done much toward bringing local anesthesia technic to its present high degree of perfection.

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The Secretary of the Society will please notify the State Secretary immediately of any errors or change in these offices.

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Original Articles

A LOCAL TONSILLECTOMY TECHNIC.

JAMES MILTON ROBB, M. D., F. A. C. S.
DETROIT, MICH.

The following method of local tonsillectomy has proven so satisfactory, compared with other methods we have used, that we are presenting it here for the consideration of those who might wish to try it. The operative essentials of this method were devised by Dr. Mathews, formerly of the Mayo Clinic; however, it is doubtful if the advantages of this technic have been sufficiently brought to the attention of the men in this vicinity.

PREPARATION OF THE PATIENT.

The psychology of the situation in local tonsil work is so important that we make as little of the preparation as possible. If the patient is to be operated upon, in the morning, we advise a light breakfast. The stimulation of coffee is a good thing under the circumstances, especially if the patient is used to it; if not accustomed to it, while the stimulation would be advantageous at the time, the tendency to sleeplessness later proves undesirable.

When possible, it is desirable to have the patient remain dressed except for the removal of some of the outside clothing, such as the coat, collar, etc., which might become soiled. They are much less conscious of being prepared for an operation if their street clothes are not removed.

Just before leaving their room, we prefer that the majority of patients have a hypodermic of hyoscine morphine and cactin, the ordinary H. M. C. No. 2.

While waiting outside the operating room, or better still, while in their room, the pillars and surrounding areas are painted with a solution of 10% cocain on an applicator wrung out fairly dry. This is done three times, at intervals of about five minutes. Care is taken to instruct the patient to expectorate any saliva after the application, to prevent an excess of cocain from being swallowed. We prefer to have the instruments and everything in the operating room all ready before the patient enters, then the injection of the tonsil areas can be started as soon as the patient is in the chair and from this time he has no leisure for his mind to dwell on the instruments and other operating room paraphernalia.

We like to have the patient sit in a straight backed chair with the hips well back so the tendency may be to lean slightly forward. The patient is covered with a sterile gown and a sterile towel is placed over the hair. He holds a sterile basin in his lap, in which to expectorate. When working in our own hospital a running water cuspidor is swung in front of the patient and is very satisfactory, for it immediately carries away any blood which also relieves the psychological situation.

For injecting the tonsillar area we use one-tenth of one per cent cocain with one minim of adrenalin, per dram of solution. We have our solutions sterilized and cultures taken frequently to insure sterility as far as possible. Since sterilizing our own solutions, we very seldom have an infection. Solutions should be prepared by reliable people, since too strong a solution is very dangerous as is also an infected solution. There is little danger of the solution being too weak for we have used plain sterile water for injection with equally good results. A nurse or an assistant supports the patient's head and wipes away any saliva and blood which may cling to the lips. This gives the patient a feeling of assurance and the head is better controlled.

We prefer to sit squarely in front of the patient, using the finger only as a tongue depressor while injecting. This causes less fright and gagging than by the use of the ordinary tongue depressor.

One syringe full of solution is injected behind the capsule of the tonsil in each of

the four positions represented in the accompanying illustrations, (Fig 3), viz; at the area of the upper and lower poles and behind and into the anterior and posterior pillars. We always inject both tonsillar areas before starting the dissection.

Fig 1

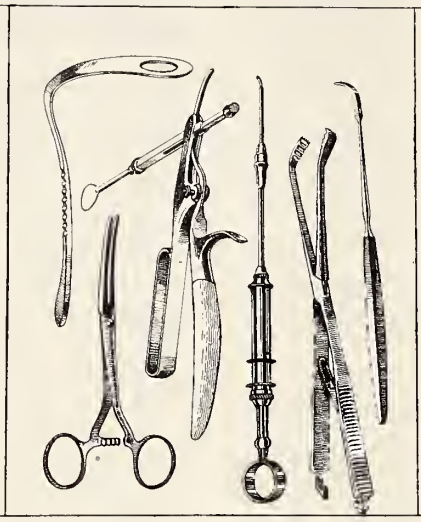

Fig 2

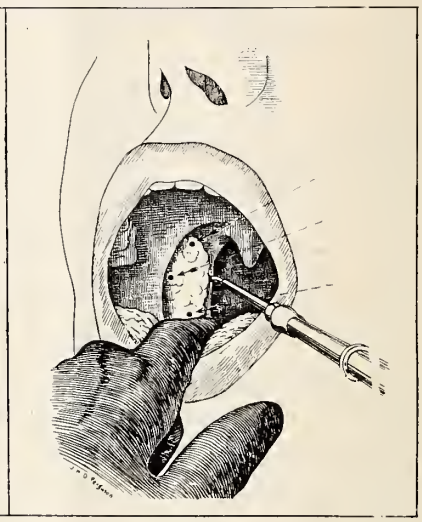

Fig 3

As a rule only the instruments illustrated, are used, (Fig 2), however a needle is always at hand to be used if necessary.

OPERATION.

With a knife devised on the order of the Robertson knife, (Fig 2) after the pillars are put somewhat on the stretch by the tongue depressor (Fig 4 and 5) an incision is made along the margin of the anterior pillar, beginning at the base and extending to the upper pole. Immediately after reaching the upper pole the incision is carried downward along the border of the posterior pillar (Fig 6) in the same manner and without, as a rule, removing the knife during the procedure. The tonsil is then grasped by the tenaculum and the superior pole drawn forward while with the flat surface of the curved knife the fascia of the superior constrictor muscle is peeled back by pressure from the capsule of the tonsil, down to its base, see (Fig 7). Then the tenaculum is released and the patient is allowed to expectorate if necessary. Immediately after this the tonsil is grasped through the loop in the snare and enucleated. (Fig 8) Usually there is very little immediate bleeding. With a swab on a hemostat applied over the base of the fossa, (Fig 9) a free surface will be revealed and it is easily

Fig 4

Fig 5

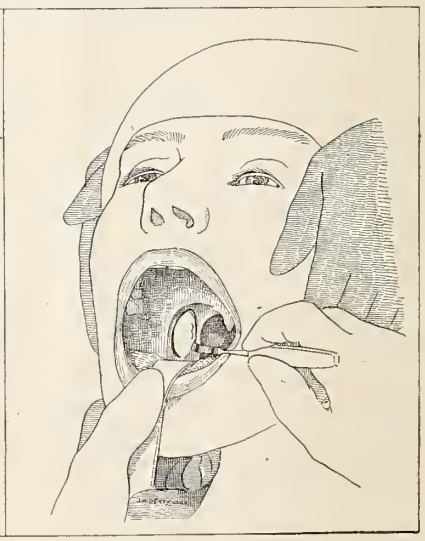

Fig 6

determined whether all the tonsillar tissue has been removed. If not, it is readily picked up by the tenaculum and removed. The right tonsil is removed in a like manner.

The routine of the procedure is similar to that followed in our general tonsillectomy method and logical for the same reasons as described in the article published.* June 1919. The incision around the tonsil allows the snare to enter only in the area of cleavage between the capsule of the tonsil and the fascia of the superior constrictor muscle. The tonsil is therefore almost invariably entirely removed and that

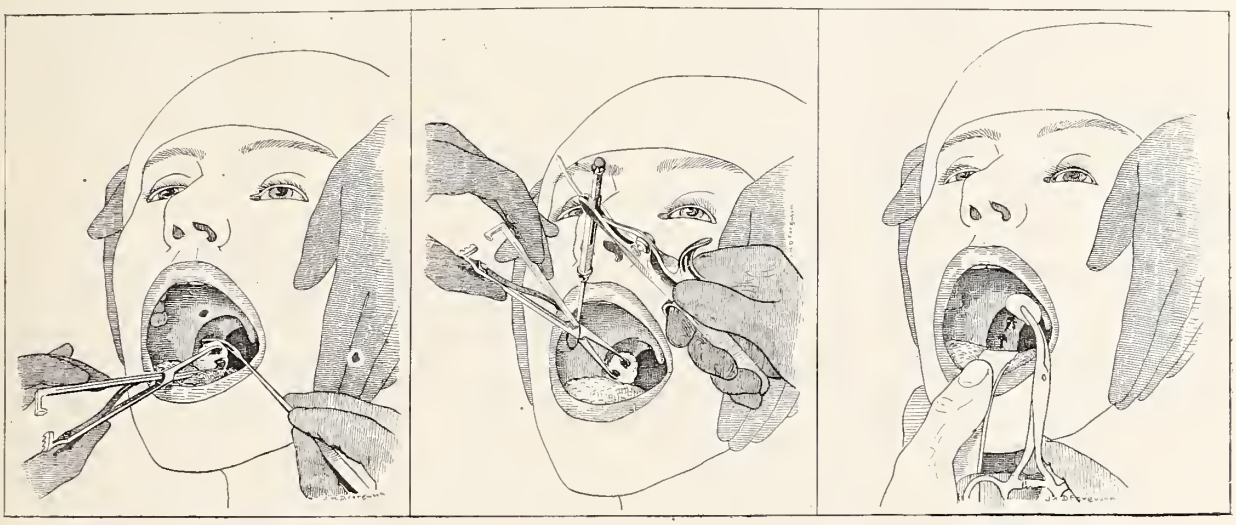

Fig 7 Fig 8 Fig 9

without getting into the tonsillar plexus of veins, which lies just beneath the covering of the muscle.

If the dissection is done by means of scissors, as clean an operation can usually be performed, but there seems to us to be much more liability of cutting into the venous plexus and besides it takes considerably more time.

The average time of operation with this method has come to be from one to four minutes after the injection is done. This rapidity combined with clean dissection is most gratifying to the patient and surely is to the surgeon.

POST-OPERATIVE CARE.

If for any reason an H. M. C. No. 2 hypodermic has not been given before the operation then something should be given as soon as the patient returns to his room for there will surely be considerable pain, which, with consequent tossing about on the bed may establish bleeding. Some opiate should be ordered quite freely for the first day and night, care being taken, however, that the patient does not become too drowsy to be cognizant of even a little bleeding. I would state here that the percentage of our past operative hemorrhages is very small with this method. Not more frequent than when operated under general anaesthesia.

A substantial breakfast of semi-solid foods is served the following morning, preceeded by a warm throat irrigation. Patients very seldom refuse to eat and by taking food as early as possible at least by the morning following the operation, the tendency to stiffness of the throat is much lessened. Plenty of nourishment buoys up the spirits of the patients and lessons the tendency to an introspective, sick attitude. After the first day a warm saline throat irrigation every three hours for two or three days is very gratifying.

To summarize the advantages of this technic we would state that:

1. It is rapid.
2. It is anatomically logical.
3. There is a minimum of psychic shock

641 DAVID WHITNEY BLDG.

(*Journal of the Michigan State Medical Society.)

VACCINE TREATMENT OF ASTHMA*

A. D. WICKETT, M. D.
C. CORLEY, M. D.
J. T. CONNELL, M. D.
ANN ARBOR, MICH.

The first consideration in the discussion of the treatment of asthma must necessarily be in regard to diagnosis. It is not our purpose to enter into a lengthy discussion of differential diagnosis. We have considered necessary for a diagnosis of asthma, first;

*Read before Section on Medicine, M .S. M. S., 57th Annual Meeting, Bay City, May, 1921.

A history of attacks of dyspnea without exertion and not relieved by rest; second: The physical signs of bronchial asthma on examination during the attack.

Granted the diagnosis of asthma, it is of extreme importance to determine whether the patient has pulmonary tuberculosis. Owing to the difficulties in physical diagnosis of tuberculosis in the presence of emphysema, we have made a rule that all asthmatics must have a chest X-ray.

II. SELECTION OF MATERIAL FOR VACCINE.

We have regarded bronchial asthma as the sequel of focal infection, and have sought for a primary focus mainly in the tonsils, accessory sinuses and in the bronchi. Each patient is examined by an otolaryngologist and plates of the sinuses are made. The focal infection is treated surgically if possible, and as much of the infection eradicated as seems advisable. If the individual has septic tonsils and no other focus, the tonsils are removed and cultured, and a vaccine prepared for treatment. If there are septic tonsils and sinus infection, both are treated surgically and a vaccine prepared from the tonsil culture. Many of our patients have had their tonsils removed before they appear for examination, and if we find signs of infection in the sinuses, a culture is obtained at the time of operation and provides the material for vaccine. In case the tonsils have been removed and there are no signs of infection of sinuses or middle ear, we culture from the sputum we always seek for a cast or spiral or other solid material which we presume has come from the bronchi. So far in our work we have had no occasion to regard the teeth as the cause of bronchial asthma, although we are in daily expectation of observing such a case.

III. METHOD OF PREPARATION.

The medium used for the preparation of this vaccine is two per cent peptone broth with a P H 7.6 to which ten per cent of rabbit serum has been added. This is inoculated with material from the tonsil, sinus or sputum, and incubated for twenty-four hours. If the growth is good, it is then diluted with sterile physiological salt solution, to a concentration of two hundred million organisms per cubic centimeter. This standardized vaccine is now placed in sterile test tubes and these are sealed off in a flame, and when cool, immersed in a water bath at 60 degrees for one hour. It is then tested for sterility and if sterile it is ready for use.

IV. DOSAGE

The vaccine is prepared in the strength of 200,000,000 bacteria per cubic centimeter. The initial dose is routinely 50,000,000 bacteria; second, 100,000,000; third, 150,000,000 and fourth and succeeding doses, 200,000,000. The interval between doses is from five to seven days, which we have found to be satisfactory after trying shorter and longer intervals.

In the administration of the vaccine, two types of reaction may be observed; first: A local reaction which consists of induration and redness at the site of inoculation. The general reaction is an attack of asthma coming on within one hour after the injection. In case of mild reaction the previous dose is repeated. If the reaction is severe, a smaller dose is used for the following injection. Treatment is continued for several weeks after the patient is free from asthma.

TONSIL GROUP

CASE I.

M. T. Male. Age 45. Carpenter.

Patient appeared here October 5th, 1920, complaining of cough and wheezing respiration.

He had pleurisy in the right axilla six years ago; influenza in October, 1919, and had a winter cough since 1897. During the past summer this cough has persisted. His first attack of asthma was September 30th, 1920, and he has had more or less asthma continuously since then with occasional severe exacerbations. On examination he has pyorrhea, septic tonsils, atrophic rhinitis, cervical adenitis, and pulmonary emphysema, with squeaks and groans more prominent on expiration. X-ray of the sinuses reveals chronic ethmoid disease. Skin tests were negative, ten proteins used.

His tonsils were removed and a culture prepared from the tonsil. Patient was treated with vaccine prepared from this culture beginning October 18th and showed marked improvement, about 90 per cent. After six treatments, patient did not return as he considered himself cured. In February, 1921, he had an acute bronchitis with slight morning wheezing and returned for two treatments and has not appeared since that time. He is completely relieved.

CASE II.

W. P. C. Male. Age 21. Student.

Present illness began at the age of six in September, with characteristic symptoms of hay fever, and disappeared with the frost. The following year he developed hay fever and asthma in the spring, which would come on when the trees blossomed and disappear after the blossoms fell. He would be free from trouble during the summer, but would have hay fever and asthma again in the fall and this would disappear with the frost. His present attack of asthma came on in the first week in November and is the first attack he has had outside of the pollen season. Skin tests with ragweed dilution, 1-100 produced a wheal 14 x 12 m.m.; 1-1000, 8 x 11 m.m.

On examination there were septic tonsils and the characteristic signs of bronchial asthma. The tonsils were removed, a culture taken and a vaccine prepared from the culture. He received his first treatment December 4th, 1920, 50,000,000 bacteria and his last on January 22nd, 1921, total-

ing 1,250,000,000. He has had no asthma since his first treatment, January 22nd. 1921, his skin tests were repeated. The ragweed 1-100 produced a wheal 7 m.m. in diameter and 1-1000, 5 m.m. For the first time in four years he has gone through the spring season without hay fever. His asthma and spring hay fever are completely relieved.

CASE III.

H. C. Male. Age 37. Laborer

November 16th, 1920, he appeared for examination. He gives a family history of tuberculosis. He had scarlet fever at the age of twelve and has had measles and influenza.

Since the attack of scarlet fever he has had a dry cough and dyspnea on exertion, wheezing and especially difficulty on expiration. His trouble comes in attacks which are perennial, but occur more often in the fall and spring than in the summer and winter. The attacks have caused considerable loss of sleep.

On physical examination we find septic tonsils and the characteristic signs of bronchial asthma with emphysema. X-ray of the chest and accessory sinuses is negative. Tonsils were removed November 22nd, and on November 27th he received his initial treatment of 50,000,000 bacteria. He received nine treatments, totaling 1,300,000,000, the last on January 22nd. During this time he caught cold and had a severe cough without asthma. Patient reports that his present condition is the best since childhood. He is completely relieved.

CASE IV.

J. B. Male. Age 35. Lather.

Patient has had bronchial asthma ever since he can remember. The attacks are perennial and his last severe attack was one week before the time of examination. His tonsils were removed and cultured and on April 7th he received the initial dose of 50,000,000, and reports that although he had been having attacks daily up to that time, he has had no asthma since, is gaining weight and feels much better than he has in years.

We have completed the treatment of only five cases in the tonsil group. Four show complete relief. The other will be discussed in the tuberculosis group.

SINUS GROUP

CASE V.

F. S. Female. Age 38. Housewife.

Her chief complaint is shortness of breath, wheezing and coughing. She has had the usual children's diseases and a fracture of the right femur in childhood, pleurisy at the age of eighteen and several severe attacks of tonsillitis. She has had considerable gastro-intestinal disturbance, nausea and belching of gas, associated with her present illness. Average weight, 100 lbs, present weight, 75 lbs.

In May, 1918, she had an attack of influenza, which confined her to bed for four days, following which she had a cough. Ten days after she got up she had her first attack of asthma, which came on in the night while asleep. For the next six weeks she was unable to sleep in bed and was obliged to take her sleep sitting up in a chair on account of severe asthma. Morphine was required to relieve the attacks. After six weeks the attacks ceased, until January, 1920. At this time, following an operation on her son, she had a series of attacks entirely similar to the first in every way, except that they were more severe and persisted for eight weeks. During this time she became so weak it was necessary to have a nurse care for her. The third series of attacks began March 15th, 1920, and persisted until her present admission to the hospital, and have been gradually increasing in severity In these attacks also, relief was obtained by morphine.

On examination she is rather emaciated and the chest presents characteristic signs of bronchial asthma. The attacks persisted while in the hospital and were relieved by adrenalin. Her chest is negative except for emphysema, asthma and chronic bronchitis. X-ray of the sinuses demonstrates pan sinusitis. Her heart was normal. Tonsils were removed and cultured. Two weeks later the ethmoid cells were operated upon, following which she had a high fever and severe asthma. On March 30th she reports that she was feeling quite weak, and weighed 78 lbs., and she received her first treatment of 50,000,000 from the culture obtained from her tonsils. During the next five days she had two light attacks of asthma, but was able to sleep at night and feels much better. On April 4th, she received 100,000,000 bacteria, following which she had no asthma. Her appetite improved and she could sleep at night and one day walked two miles. On April 11th she had the third treatment, following which the vaccine was sent to her home physician to continue the treatment. Following her sixth treatment she had a marked general and local reaction and since then has discontinued treatment. This is regarded as an unfinished case.

CASE VI.

J. R. B. Male. Age 51. Book Publisher.

Patient's chief complaint is itching and swelling of the extremities and face, and asthma

For the past ten years he has had asthma whenever he has caught cold. He has had a pan sinusitis with radical operation on the right frontal and removal of the nasal wall of the left antrum. He has had a bilateral otitis media and when he appeared at the Otolaryngological Clinic three years ago he could hold his nose and blow pus out of both ears. His asthma was very severe and for the past year nearly constant. During the summer of 1920 he developed a painful smooth white swelling of the right foot, which persisted for two days and he has had similar attacks in both legs, both arms and both hands and at one time the upper lip was swollen about three times its normal size. Examination revealed characteristic signs of bronchial asthma and a swelling of the hand of the type called angioneurotic edema. He has also had urticaria.

A vaccine was prepared from culture obtained from the left maxillary sinus, and January 19th, 1921, he received the initial dose of 50,000,000. Since January 15th, 1921, when he received his second dose, he has had no asthma, no urticaria and no angioneurotic edema except one small wheal which occurred on the foot March 5th and persisted for about one hour. In addition to this, the discharge from the left side of the nose has disappeared; consequently on March 26th he was given a vaccine obtained from the right side of the nose and reports on April 9th that there is a very marked decrease in the discharge from his right nostril. His asthma, urticaria and angioneurotic edema are completely relieved. He has no dis-

charge from the left side of his nose and very little from the right.

SPUTUM GROUP

CASE VII.

L. G. Female. Age 24. Housewife.

Patient appeared for examination August 30th, 1920, complaining of attacks of difficult breathing.

She had scarlet fever at the age of four. Her present illness began in July, 1919, with an attack of difficult breathing so severe that she became markedly cyanotic. She states that her great difficulty was in expiration. She has tried burning several asthma powders and obtained relief from attacks, but they returned as before.

Physical examination showed small septic tonsils, deviated septum, nasal polyps, tooth abscess and bronchial asthma. X-ray of the chest was characteristic of chronic bronchitis and emphysema. Her tonsils and polyps were removed in August, 1919, and she was given several expectorant cough mixtures without any change in her condition.

Vaccine was prepared from her sputum. She received her initial dose February 26th, 1921, before which she had had asthma all week. During the following week she had one light attack. The week following the second injection she had two slight attacks and the week following her third injection she had no attacks.

CASE VIII.

G. S. Male. Age 55. Proprietor, grocery store.

Patient's chief complaint is attacks of difficulty in breathing.

He had malaria at the age of 20, smallpox at the age of 36. In October, 1919, he had influenza and in November, 1919, he had a heavy cold, which was also thought to be an attack of influenza. During this second attack he developed asthma, with attacks coming on every day and lasting from two to seven hours. For the past six months adrenalin in doses of five to seventy-five drops were necessary to relieve the attacks. Between attacks there is no difficulty in respiration or dyspnea on exertion. On examination there is a marked arterial sclerosis and the chest presents characteristic signs of asthma, chronic bronchitis and emphysema. He has lost fifty pounds in weight during the past year and is quite weak. There is no evidence of pulmonary tuberculosis.

A vaccine was prepared from the sputum and on October 4th, he received his first injection of 50,000,000, following which he had asthma, but a rather light attack. The attacks persisted, but seemed to consist of a choking sensation rather than difficulty in breathing. October 7th he received 100,000,000, following which there was a severe reaction with recurrent attacks of asthma during the next three days. It was decided to lengthen the interval to five days. His condition then improved until November 6th. However, he continued to have light attacks, which consisted mainly of a sensation of oppression and slight wheezing. In view of this, a new vaccine was prepared from a cast obtained from the sputum and he was given 50,000,000 November 17th, following which he had violent reaction. November 24th he was given 25,000,000 without reaction and with marked improvement in his condition. He continued to improve so rapidly that on December 4th he was discharged and sent home with the vaccine to be treated by his home physician. December 12th we received a note from his doctor which states that he is very much improved.

CASE IX.

D. S. D. Male. Age 21. Student.

Patient appeared April, 1920, complaining of attacks of shortness of breath brought on by colds, exercise and dust. These attacks would come on at night and be so severe that he was obliged to get up, and after a few hours, cough up a large amount of sputum and be relieved.

His tonsils were removed in May, 1920, and the attacks continued as before. In addition to this, in connection with the attacks, there was epigastric pain and erucation of gas. He returned for treatment in February, 1921, and a vaccine was prepared from his sputum and on February 14th he received the initial dose of 50,000,000, following which there was a severe attack of asthma. The two succeeding doses were reduced to 25,000,000 and there was no reaction after the injection. The dose was then increased and he has had no asthma since February.

CASE X.

R. B. S. Male. Age 22. Student.

This patient gives a history of chronic catarrh, pneumonia five years ago, and tonsillectomy one year ago His present illness began in 1912 with hay fever and asthma in September. This has persisted up until the present time. The present attack began with a cough, which lasted for about a week, after which time he developed asthma, which was so severe that he was unable to sleep.

Vaccine was prepared from the sputum and he received the first treatment of 50,000,000 on October 11th, 1920, and the second on October 16th. He reported partial relief after the first treatment. Following the third treatment on October 23rd, he has had no asthma, and was discharged November 11th, having received seven treatments totaling 1,500,000,000 bacteria.

CASE XI.

G. W. F. Male. Age 62.

Patient's present illness began July 2, 1920, with severe difficulty in breathing, which has persisted ever since and comes in attacks, and is relieved by burning a powder which contains stramonium. He had a chornic cough and raises great quantities of sputum at the conclusion of attacks. The cough is present between attacks and is moderately productive. During the past year he has lost thirty-five pounds. Physical examination reveals signs of pulmonary emphysema, chronic bronchitis and bronchial asthma. He had extensive pyorrhea. X-ray of the chest is characteristic of chronic bronchitis with emphysema.

On October 7th, 1920, his teeth were extracted. A vaccine was prepared from the sputum and on October 12th he received his first dose. He received five injections and has had no asthma since his first treatment, but the cough persisted. He was discharged November 6th, with 100 per cent relief.

In this group the treatment has been completed in five cases. Of these, four show complete relief and the fifth a marked improvement.

TUBERCULOSIS GROUP

CASE XII.

A. H. Male. Age 28. Laborer.

Patient's chief complaint is difficulty in breath-

ing. He has had two attacks of pneumonia and two attacks of pleurisy.

His present illness began in 1918 with difficulty in breathing, especially in the fall, winter and spring, which is severe enough to keep him in bed for a week at a time. He has a cough at times and his difficulty in breathing is especially bad at those times. He has a cough every morning. Physical examination of the chest shows a moderate emphysema with low-pitched musical rales throughout both lungs, heard mainly on expiration. X-ray of the chest demonstrates an early pulmonary tuberculosis.

Tonsils were removed and cultured. Patient received the initial injection November 27th, 1920. He was treated at weekly intervals until March with about 50 per cent improvement, but with considerable reaction to the vaccine, so that it was not possible to give doses above 150,000,000. A new vaccine was prepared from the sputum and he received the initial dose of 50,000,000 on April 2nd. No reaction occurred and the dose was increased to 100,000,000 on the 8th, 150,000,000 on the 16th and on the 23rd he received 200,000,000. The past two weeks there has been no asthma.

CASE XIII.

G. A. Male. Age 53. None.

Patient's chief complaint is difficulty in breathing and palpitation. His father died of pulmonary tuberculosis at the age of 53. His present illness began five years ago with gradually increasing shortness of breath on exertion without relation to the seasons, locality or animal emanation. His shortness of breath and wheezing came in attacks which he had both at night and in the daytime and which were relieved by asthmador. During the past three months he has been very much bothered by palpitation of the heart. The chest reveals characteristic signs of an old pulmonary tuberculosis, chronic emphysema and bronchial asthma. X-ray of the chest reveals a chronic fibroid pulmonary tuberculosis which involves every lobe, the uppers more than the lowers, the right more than the left. The differential blood examination shows four per cent eosinophilia. The diagnosis is chronic pulmonary tuberculosis, asthma, chronic myocarditis, general arteriosclerosis, septic tonsils, pyorrhea alveolaris, cataract and inguinal hernia.

Vaccine was prepared from the sputtum.

He received his first treatment October 23rd and his last December 11th, 1920, a total of 1,550,000,000 bacteria. During this time there was a marked improvement in his asthma, but he continued to have minor attacks, although he improved so that he was able to walk six miles for one of his treatments.

In this group there are two cases, one of whom is completely relieved, the other showing about seventy-five per cent relief.

The cases reported are consecutive cases in which treatment has been completed. The number is too small and the time elapsed too short to warrant any conclusions as to the final value of the method.

Of the thirteen cases presented, ten show complete relief. Even if this relief should prove to be only temporary, the treatment is still of great value.

THE PROPHYLAXIS AND TREATMENT OF ANAL INCONTINENCE FOLLOWING OPERATIONS FOR FISTULA.*

LOUIS J. HIRSCHMAN, M. D., F. A. C. S.
DETROIT, MICH.

One of the sad sequelae in the past, and to a lessened degree at the present time, of operations for the relief of ano-rectal fistula has been the affliction of loss of fecal control. Patients, after a destructive operation for the relief of fistula, will find to their dismay that they have lost the power to control the passage of gas, mucus, and feces to become at once a nuisance to themselves and to those with whom they come in contact.

As soon as the patient awakens to a true realization of his condition and finds that he involuntarily becomes an unwelcome nuisance to those around him, he becomes a recluse and voluntarily ostracizes himself from the society of others.

It is bad enough for a man to be compelled to resign himself to seclusion and condemned to a life of odoriferous discomfort. The constant wearing of bandages and dressings in an endeavor to keep himself clean and insure a small degree of comfort is bad, but how much worse it must be for one of the gentler sex to drag out her life in a similar condition.

While it is true that certain serious diseased conditions attack and destroy the sphincter muscles so that incontinence is in a very few cases unavoidable, the greater number of such cases are preventable and their existence in the present day and age is a sad reproach to the surgical handling of ano-rectal fistula.

There are certain cardinal principles to be followed in all operations for the relief of ano-rectal fistula, and if these are studied, mastered and conscientiously followed, this demoralizing, disgusting, disgraceful and condemning sequela will soon disappear from the list of surgical crimes.

As in all branches of our professional endeavor, the greatest service we can render a patient is the prevention, rather than the cure, of any diseased condition. This holds particularly true regarding fecal incontinence. When the patient, afflicted with a fistula, presents himself for treatment he must be studied just as carefully as if he were suffering from some obscure symp-

*Read before Section on Surgery, M. S. M. S., 56th Annual Meeting, Bay City, May, 1921.

toms of internal origin. The fact that, on external inspection of the parts, one or more openings are disclosed from which a discharge is exuding may be regarded as **primafacie** evidence of the presence of a fistula.

The type, extent, direction, character,

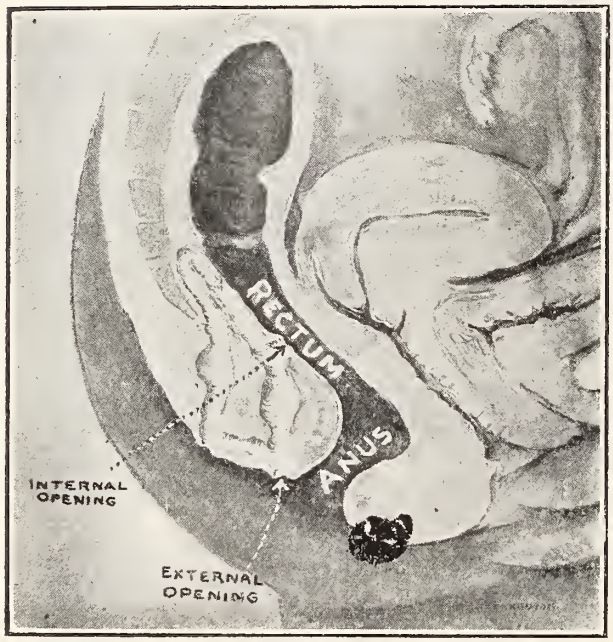

Fig 1

complications and source of the fistula are all extremely important facts which must be elicited before treatment is decided upon. A stiff probe should never be used in the diagnosis of fistula. If any probe be used at all, it must be made of soft annealed silver suture wire, which is so pliable as to adapt itself to the curves and tortuosities of a fistulous tract, and never of firm enough consistency to force a false passage.

One of the most vicious teachings in the past was the advice offered in several recognized textbooks on general surgery—that of passing the probe or grooved director into the external opening of a fistula, and to force it through into the rectum if an internal opening could not be discovered. In other words it meant either causing a new and additional traumatic internal opening to complicate an already existing complete fistula, or it meant the conversion of an external sinus into a complete fistula.

The best method to definitely determine the number and directions of fistulous tracts, as well as other anatomical relations is by the injection of bismuth paste and the employment of stereoscopic radiography. Much information is also disclosed by digital, recto-vaginal and bi-manual palpation.

Frequently the location of the internal openings can be well determined by observing through an anoscope while injecting heated bismuth paste through the external opening. The bright yellow bismuth paste shows in sharp contrast against the normal or inflamed mucous membrane or skin. A soft annealed silver wire probe is passed into the external opening, and with great gentleness, directed through the fistulous tract guided by a finger in the rectum until it emerges through the internal opening. The bismuth paste lubricates the entire fistulous tract and assists in no small degree in the passage of the probe.

If one is dealing with a single-complete tract, the internal end of the flexible probe should be drawn outside of the anal canal, and twisted around its external extremity. The probe then acts as a tractor, which facilitates the excision of the whole fistulous tract.

Whether local or general anesthesia is employed, an incision is made through the skin and down to the indurated tissues surrounding the fistulous tract. The incisions are carried on either side of the tract and rejoined beneath or behind it. The entire tract, threaded on the silver wire, is then cut away.

Other successive tracts are treated in like manner, provided they do not extend be-

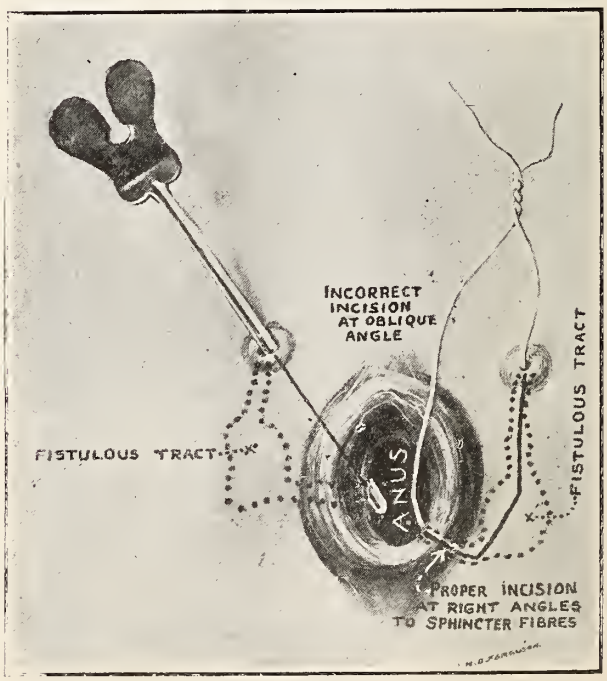

Fig 2

neath, behind or beyond the external sphincter muscle. All incisions are directed so that they cross the sphincter fibres at

right angles. This is extremely important in the prevention of incontinence.

If more than one tract would seem to indicate cutting the sphincter more than once at a single sitting, this can be avoided. The tracts in a multiple fistula, which are not to be incised or excised are each injected with bismuth paste. A soft silver wire probe is passed through each to the internal opening and the ends twisted together as outlined above. These are allowed to remain in position until the healing of the first, or original tract, is complete. They are tightened every two or three days just sufficiently to take up slack but not to constrict the tissues. The fistulous tracts, which were incised in back of and down to these wires, will heal up to the wire, thus providing a solid backing—a cicatricial splint to the sphincter muscles.

We now have to deal with two or three superficial fistulas, which are threaded on silver loops. These are incised and the loops freed under local anesthesia and healing is completed in a few days. Silk thread, silkworm or steel snare wire may be used in the place of silver. If the snare wire is

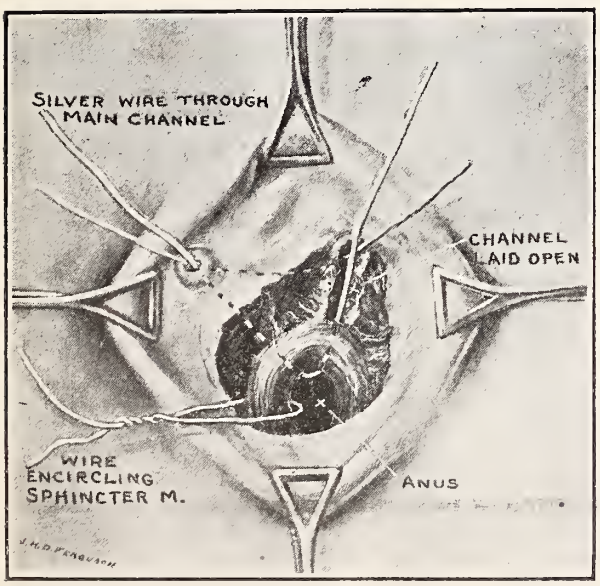

Fig 3

used, the operation may be completed by sawing through the tissues with the wire instead of incising.

Most fistulas are not of the simple textbook "goosequill type," but consist of an irregular shaped abscess cavity surrounded by a wall of scar tissue, and communicating with integument and bowel by means of small channels. The use of bismuth paste and stereoscopic X-Rays give us all of this information, however, before operating.

When a fistulous tract of this type is laid open, the temptation in the past has been to pack the cavity with iodoform gauze, and at each succeeding dressing to repack. More cases of anal incontinence following operations for fistula are due to this pernicious, persistent packing than any other one factor.

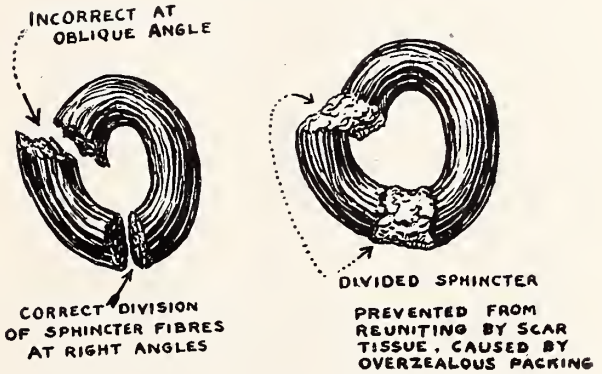

Fig 4

The packing prevents the severed ends of the sphincter muscles from reuniting, and in the healing process allows the space to fill in with a large area of scar tissue to replace the sphincter. The ends of the sphincter being separated by a bridge of connective tissue, this muscle is not able to functionate properly. The arc of sphincteric circumference, which is filled by non-elastic tissue, prevents proper closure, and leakage of gas, mucus and feces results.

It is perfectly proper at the time of operation, in order to prevent unnecessary blood loss from oozing, to pack the wound. This packing should be removed however at the end of twenty-four (24) hours. At each succeeding dressing a strip of gauze is loosely inserted into the wound for drainage, but it is never again repacked.

Great care must be exercised in the after-treatment of these cases to guard against the integument growing down into the wound and forming a cleft, or sulcus, which of course produces incontinence. If some parts of the wound are sluggish and granulations tardy in healing, stimulating applications are indicated. One of the best preparations for this purpose is Scarlet Red Ointment, not stronger than five per cent.

When the wound is healed, it will be found that the severed ends of the sphincter have been cemented together by a thin film of connective tissue, and perfect contour and complete continence is again restored.

The keynote in the treatment of ano-rectal fistula is the personal attention of the surgeon to after-care. More patients have been injured from operations for the relief of fistula by negligence, carelessness and lack

of interest by the attending surgeon than by improperly performed operations.

When the patient presents himself with a history of an operation for fistula followed by incontinence, a serious problem confronts the surgeon. On account of the unfortunate result of the previous operation, the patient is prejudiced against any kind of surgical procedure in the affected region of the body, and has become despondent, morose, pessimistic and generally antagonistic. Fortunately, however, his deplorable condition is such that he is willing to try anything under the sun in order to get even partial relief.

Quite a number of patients have given up hope and have resigned themselves to their fate. In fact it has been surprising to the author to learn that many patients have been informed by their physicians that their condition was hopeless and nothing could be done for them.

As a matter of fact four out of five cases can be not only relieved, but permanent function can again be restored. If two-thirds of the sphincter muscle can be demonstrated to be intact, continence can be restored by surgical measures.

A large variety of plastic operations have been devised for the reunion of the severed sphincter; in fact each case is a law unto itself. Any operation to restore sphincteric continence must include:

1. The preservation of uninjured sphincter muscle sufficient for future function.
2. The careful removal by dissection of all scar tissue.
3. The co-aptation of healthy spincteric muscle without undue strain or tension.
4. The prevention of post-operative infection and promotion of healing by first intention.

Whether one employs local or general anesthesia depends to a large degree on the amount of scar tissue present. If the amount is slight, not involving more than 10% of the sphincteric circumference, local anesthesia may be employed with satisfaction. If, however, there is more scar tissue to be dissected, it is better to have the patient under general anesthesia.

If there are two distinct areas where sphincteric muscle has been replaced by scar tissue, better results will be obtained if the operation is done in two stages. The technic of the repair of the severed sphincter is as follows:

Incisions are made as near the outer limits of the scar tissue as can be determined, and at right angles to the sphincteric circumference, or as near parallel to the radiating cutaneous folds as possible. These incisions are brought down to a point below the scar-mass and are brought together so that a wedge-shaped cavity is left. Care must be taken to preserve as much mucous membrane and skin as possible so that a good covering will remain after the sphincter is repaired. The sphincter ends can be easily dissected free from surrounding tissues, and should be brought together by interrupted number two chromic sutures. Two or three sutures are sufficient. The skin and mucous membrane is sutured over this with interrupted chromic or silkworm stitches, and the wound covered with stearate of zinc powder.

If the incontinence has resulted from an anterior fistula in a female patient, and there is some perineal involvement, it may be necessary to perform a complete perineorrhaphy as well.

Care must be taken to keep the bowels at rest for at least three days and then to move them by an enema rather than by drastic cathartics. The administration of mineral oil every night will assist in preventing hard irritating stools. The same local care is given following this operation as following perincorrhaphy. After the sixth day the patient may be alowed to have unassisted stools. Usually in ten days he is able to walk.

If a two-stage operation is to be performed, it is well to wait three or four weeks after the first wound is completely healed before performing the second operation. We have a number of these cases come to us for treatment every year, and in almost every instance we have been able to restore sphincteric continence. In a few cases where the destruction of the sphincter muscle was quite extensive, the patient has good continence for formed stools, but when diarrhoea is present, there will be more difficulty in restraining movements for several months following operation. If the diet is supervised so that the patient has solid stools, this difficulty can be, to a large extent, avoided even in these extreme cases.

In patients, who have suffered great destruction of tissue due to trauma, infection or malignant disease, one will occasionally find that the entire sphincter muscle has been destroyed. Torsion of the rectum to ninety degrees with suture in the twisted condition will sometimes act satisfactorily if the patient's stools are kept solid.

When complete destruction of the sphincter, and with it more or less of the rectum itself has occurred, the best substitute we

can offer is a colostomy, which can be well controlled by the patient. By interlacing the bowel between bundles of rectus fibres, we can provide a fairly satisfactory sphincter, and the artificial anus is located on the anterior abdominal wall where the patient can give it the proper toilet. It is interesting to note how well the artificial anus can be controlled, and regularity of stools established. We have a number of patients, who have a daily evacuation at a regular hour in the morning and are free from annoyance until the following day.

The patient washes out the afferent opening of the colostomy with a four ounce all-rubber bulb syringe. A two per cent solution of sodium bicarbonate not only cleanses the bowel of fecal matter but removes excessive mucus as well. He first injects three or four syringes full of the solution, while in the recumbent position. After lying there for two or three minutes, he sits on the toilet and placing a crescent basin below the colostomy opening, he strains the same as at the stool. This will empty the sigmoid and as a rule the patient is relieved until evening or until the following morning.

As was stated in the fore part of the paper, most of these cases of incontinence are preventable. It behooves us, therefore, when operating for any ano-rectal condition and particularly abscesses and fistulas, to respect the sphincter muscle in our incisions, and by no means to insult it in our after-care by over-zealous packing.

10TH FLOOR KRESGE BLDG.

TONOTOMY OF THE INFERIOR OBLIQUE MUSCLE.*

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History of case. A school boy aged 14 years entered the Ophthalmic Clinic of the University of Michigan, complaining of blurred distant vision, and double sight which was troublesome only when wearing glasses.

The family history was negative and the patient suffered no serious illness, except an attack of acute appendicitis five years previously for which an appendectomy had been performed.

Examination. It was noted that the patient tilted his head forward and turned it slightly to the left. Vision, right eye 2-60, left eye 3-60. On turning the eyes to the right there was no apparent deviation from the normal, but on looking straight ahead there was at times a manifest vertical deviation of the right eye. This hypertropia was markedly increased on looking to the left.

The physical examination, including a blood Wassermann, was negative.

Refraction under homatropine gave the following result:

O. D. S-5.50 C-O.75, axis 100°, vision—6-6
O. S. S-5.00 C-O.50, " 105°, " —6-6

Examination of the fundus was negative, except for early and very moderate myopic changes.

With the troptomer, the ocular excursions were as follows:

	Up	Down	Right	Left
O. D.	45	50	40	50
O. S.	40	55	45	50

The field of diplopia was somewhat variable, but generally was characteristic of paralysis of the left superior rectus; the vertical distance between the image increasing as the eyes were elevated and turned to the left. Tortion was excessive. On looking straight ahead the false image was that of the left eye, but on attempting to look up, or to the left, the patient fixed with the left eye—the right eye shot up and the false image was that of the right eye.

Repeated examinations over a period of two months showed a right hyperphoria of from 21° to 32° and an exophoria of from 3° to 5°. The vertical deviation always increased on looking to the left and disappeared on looking to the right.

Diagnosis. Spasm of the right inferior oblique with partial loss of power in the left superior rectus.

Operation. Tonotomy of the right inferior oblique at its origin. Convalescence was uneventful and when the patient left the hospital, there was no diplopia and no hyperphoria or exophoria could be demonstrated. Now, three months after operation he has 3° of right hyperphoria, 1° of exophoria, no diplopia. He holds his head erect, and expresses a great sense of relief.

Largely through the publications of Dr. Duane and Dr. Posey, cases of deviation of the eye due to spasm of the inferior oblique are becoming better understood and more generally recognized.

According to Duane, the indications for tenotomy of the inferior oblique are, first, paralysis of the superior rectus, congenital or traumatic, with fixation with the paretic eye and consequent secondary deviation of the inferior oblique in the opposite eye; second, paralysis of the superior oblique with secondary deviation of the inferior oblique in the same eye. The former condition is rather frequent as a congenital anomaly. The picture is characteristic, so that the diagnosis can be made in some cases even at the age of a few months. To evade diplopia, the patient either shuts one eye or turns the head to the right and tilts it. In looking to the right, and especially upward, to the right, characteristic diplopia develops.

Head tilting is frequent in cases of congenital deviation of this character. It is due, according to Duane, to the involuntary attempt to get the double image on a level and thereby obviate the confusing effect of a

*Read before the Section of Ophthalmology and Oto-Laryngology, M. S. M. S., 57th Annual Meeting, Bay City, May, 1921.

vertical diplopia. This head tilting may be so extreme that it may simulate a torticollis. The vertical deviation may be associated with a divergence or convergence of the eyes, the lateral deviation being developed in an effort to suppress the false image by forcing it out of the useful field. In cases I have seen, the deviation is most often up and in on looking toward the paralysed muscle, although, occasionally it goes up and out. The eyes may show little or no deviation from the normal on looking straight ahead, or away from the side with the affected muscle, the abnormal deviation being present only when looking toward the side affected.

There is present when the patient fixes with the affected eye, a secondary deviation of the associated muscle. In the case of paralysis of the superior rectus in one eye, the inferior oblique of the opposite eye is over stimulated. To relieve this condition, the inferior oblique is divided at its origin. The operation may be performed by approaching the muscle through the conjunctiva, or through the lower lid, just above the orbital margin.

OPERATION.

As suggested by Terrein, the incision is made through the lid beginning at the intersection of the lower orbital margin, with a perpendicular dropped from the superorbital notch, and extended inward. It should be carried down to and through the orbital septum, immediately above the orbital margin. The tendon lies close to the floor of the orbit and well to the inside. In searching for the tendon, the hook should enter near the outer end of the incision and be swept inward with its point turned inward and upward. The tendon is buried in the orbital fat which will present in the wound when the tendon is delivered. A free division of the tendon should be made near its origin.

The results are most gratifying in the successful cases. The torlicollis is relieved at once and the patients express themselves as experiencing the greatest sense of relief.

The operation may be performed as early as the age of four. The vertical error should be corrected first. As this may be the cause of the lateral error, no further operative interference may be necessary. Should the lateral error persist however, it may be corrected later.

I have recently had such a case. The vertical error was corrected by dividing the inferior oblique at its origin, but it was necessary to divide the tendon of the internus to correct the convergence.

THE SEQUELAE OF EPIDEMIC ENCEPHALITIS.

CARL D. CAMP, M. D.
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It is customary to look upon epidemic encephalitis as an acute infection running a self limiting course and with a mortality rate, varying in different localities, from 20% to 50%. It was also generally assumed, at least until quite recently, that those who did not die recovered with no permanent disability. This latter assumption is one which, on the basis of my own experience as well as a study of the literature, I believe to be incorrect. I have been so situated as to see a considerable number of these cases (22) during the first ten days of their illness but a much larger number of cases in which there was a clear history of this disease and in which certain symptoms were persistent or in which other symptoms have developed as sequelae. I am still seeing such cases frequently.

The problem of their recognition is, in most cases, not at all difficult when the history is clear and the possibility of their occurence is recognized; however either or both of these points may be obscure. For instance, it is certain that many cases of epidemic encephalitis occurred which passed unrecognized either because they were mild, ambulant cases or because they were of the more unusual types. Also the fact that some of the sequelae appear some time after the patient has apparently recovered from the original symptoms and, seemingly, are entirely different in character from them is another factor which might cause difficulty.

The great variety of the symptoms which may occur under such conditions makes a condensed description of them a difficult matter.

Perhaps the most frequent is some disturbance of sleep. More often it takes the form of insomnia or else a reversal of the sleep habit, insomnia at night—sleepiness by day. This post-encephalitic insomnia is common. Grossman (Arch. of Neur. and Psych. 5,580) found that 49 out of 89 of his patients showed it and Rosanenda has written a monograph on the subject. It may last for a year or more.

Another common complaint is impaired memory and inability to concentrate. This

is usually not a serious symptom except in those whose occupation requires these faculties to high degree.

Peculiar neurotic symptoms resembling those of the psycho-neuroses; hysteria or psychasthenia, are not uncommon. In fact the symptoms are so similar that the diagnosis of one of these conditions would be made if it were not for the history and the fact that the emotional upset is obviously not psychogenic. They do not receive benefit from psychotheraphy as does the ordinary psychoneurotic altho they are often extremely suggestible.

A marked change in the general mental characteristics of the patient is not infrequent, especially when the disease occurs in children. The clean, obedient, quiet child becomes noisy, restless, disobedient and subject to bad habits formerly unknown. As to the permanency of these phenomena following epidemic encephalities I can not say, but inasmuch as similar results sometimes follow encephalitis in childhood when due to other causes, measles, etc. I think that they might be of long duration.

In some cases there is a progressive mental deterioration following these cases which resembles the clinical picture of paresis and when coupled with the mask like facial expression and the tremor about the lips, etc., which may persist from the encephalitis the resemblance is striking.

Kirby and Davis (A. of N. & P. 5). Jones and others have written extensively on the psychiatric aspects of encephalitis drawing the general conclusion that no special type of psychosis exists but that the disease may develop psychotic trends pre-existent in the individual. It may be pointed out however that it is doubtful if the patient would have developed any frank mental disturbance if they had not had the disease and, in view of the great frequency of character change following the disease, psychoses, of various types, might well be included among the sequelae of encephalitis.

Disturbance of the function of accomodation is frequently noted in encephalitis along with ocular palsies of various kinds. They usually clear up quickly but in several cases that I have studied a condition of weakness in accommodation—transitory loss of the power of accommodation after use of the eyes for near work, has been a persistent symptom.

The paralyses, when they occur in the face, etc., are usually transitory but the myotonia, the mask like facial expression and the general rigidity of the pseudo-Parkinson syndrome are persistent. I have seen several cases of this kind of over a years duration and they as yet have not improved in this respect.

The myoclonic movements which are characteristic of one type of the disease are not usually permanent but in two adult patients with movements of choreic type neither had improved in this respect after eighteen months observation. From my experience and a review of the literature it would seem that this choreiform type offers a bad prognosis for recovery.

Although the paralytic phenomena such as hemiplegia and paraplegia, when they occur, are usually transitory yet they may persist for many months and muscular atrophy may occur. I have seen two cases in which the signs and symptoms of amyotrophic lateral sclerosis developed rapidly after an attack of epidemic encephalitis and a number of similar cases are recorded in the literature. Gutman and Kudelski report a case of myopathy of the Laudouzy-Dejerine type following encephalitis.

The chronic and recurrent types of cases of epidemic encephalitis are not uncommon. Economo, in 1919, reported a case in which the disease began in 1917. The patient died in July 1919 and autopsy showed typical lesions. De Massary and Boulin reported a similar case fatal in nine months. The presence of these chronic cases may account for certain errors in diagnosis especially when the symptoms—pains, paralysis or mental symptoms—are such as may be found in other diseases.

Personally, I do not believe that epidemic encephalitis is contagious at any stage of the disease, nevertheless there are instances reported as examples of contagion from these chronic or recurrent cases. Claude and Laulerie* report such an instance from an old case with pseudo-Parkinson syndrome. His symptoms began in February, 1919. The second patient was exposed to the first in December 1920 and developed the disease. Netter reported a case in a patient whose only known exposure was to a patient who had had the disease two years before and who had been presumably cured but had occasional attacks of diplopia. When one stops to consider all the possibilities in such cases and the large number of people who must have come in contact with them without developing any disease, it seems more reasonable to consider them as mere coincidence.

The treatment of the persistent symptoms and sequelae is determined to a con-

*Bull. Soc. Med. de Hop. Paris Jan. 21. 1921.

siderable extent by their character and severity. The insomnia may be relieved by some hypnotic given regularly until a proper sleep habit is re-established. For brain workers, a prolonged rest is usually very desirable. The persistent pains are generally best relieved by salicylates or aspirin. I have never found it necessary to use morphine altho many of these patients had been given morphine before I saw them, usually with bad effect.

The chorea and myotonic cases are resistant to treatment. The injection of foreign protein may be of some use. For this purpose, milk seems to be as useful as anything. In fact we have had better results with milk injections than with vaccines, etc., altho variations in individual cases make comparisons difficult.

THE WOMAN IN LABOR*

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DETROIT, MICH.

The propagation of species among vertebrate animals includes a variety of processes which culminate in parturition. Among viviparous animals, including man, this latter act involves vicisitudes which increase in number and severity, more or less in ratio to the evolution of the demands of civilization; labor among primitive peoples being, as a rule, more like that of the lower animals, and less strenuous than with the higher cultural group.

Tradition, associating pain with labor, the assumed penalty for disobedience—can be traced back to Babylonian-Assyrian nature myths, and indicates that childbirth has always been recognized as an epochal event in the life of woman, and no opportunity since the beginning of historical notation has been lost in calling attention to and emphasizing the fact. Phenomenal as it appears, there is a peculiar lack of sympathy between women at this particular time. At the most critical period of her existence, when words of comfort, cheer and encouragement are her due, the enciente is too often harrassed by tales of suffering, misadventure and fatality, so that she lives, mentally at least, in the "shadow of the valley" during gestation and enters labor protesting, retracing, frightened, often panic-stricken and demoralized. The dread of delivery and its attendant possibilities and the fear of physical suffering are the two deterrents responsible for the refusal of a large number of women to assume the obligations of motherhood.

If, as has been asserted, labor in modern woman has become almost a pathological process; if, as advocated, operative measures are to surplant normal delivery; if the material instinct is really approaching a vestigial remnant and woman is to be merely employed as a hatchery to be delivered by artificial means—then one of the three grand divisions of medicine must be abandoned and obstetrics relegated to the scrap heap of oblivion. Fortunately for the human race there are still enough adherents to a belief in physiological processes to stem the tide of this purely mechanical pseudescience. Whatever labor may present in itself, the advantage of the woman still lies in the knowledge of her acquired by the accoucheur during the months of pregnancy, and the advice and encouragement which are within his power to extend.

Prenatal care is a forewarning, and should be a forearming of the physician. He learns to know his patient; her build, her psychology, and, to an extent, her capacity for pain during the test of labor, and thus is in position at a comparatively early period in pregnancy to elect the outcome of the future delivery. Pelvimetry, the determining of vaginal capacity, of vital forces, anatomical structure, nervous response, blood pressure, and chemistry, and urinalysis, further add to his knowledge of the patient's capability and by what disorders she may be threatened, and he, indeed, is negligent, who does not avail himself of this pre-information to as large an extent as possible, and thus forfend from needless suffering if not ultimate disaster. Nor is the knowledge of the mother thus obtained of single importance, for observations of the child in utero, its development, the size of head, the presentation, position, and activity, all have bearing on the approaching labor, and the future existence of the offspring. Of late particular attention has been given to the influence of specific infection—its relation to abortion and prematurity, as well as to the immediate and remote welfare of the child.

Women leading normal lives, undoubtedly go through labor with comparatively little suffering or trouble, although the time required for the passage of the child through the parturient tract has possibly been prolonged. Pain or suffering, will depend largely on the woman's nervous and psychic make up; susceptability to these increasing with the reaction to nervous irritation, and impressionability.

*Read before Section on Gynecology and Obstetrics, M. S. M. S., 57th Annual Meeting, Bay City, May, 1921.

It is the duty of the obstetrician to allay or overcome unnatural conditions and to bring his patient through the trying ordeal with as little damage to physical and mental organization as possible.

The first stage of labor is the test. From the onset increasing pain erects a state of uneasy expectancy, which becomes discouragement through prolonged continuance. In her ignorance of the mechanism of labor, the parturient seems to suffer without recompense, to pain without effect; depression follows and with the unstable and hysteric, a mild frenzy may develop. During the close of this period the physician himself is not without perturbation; he sees the patient suffer, but orthodoxy prevents possible amelioration. He is told that anodynes may lessen or even stop uterine contractions and, while relieving pain, prolong labor. Following too closely the letter, he forgets that rest is the promoter of activity, and that fatigue results in exhaustion and later perniciousness. However bravely a woman may withstand the ordeal there comes a time when the stoutest may break under the continued strain, and it is just here that analgesia plays an important role. An anesthetic may be given with most gratifying results, at the height of the pain, and in instances of stormy contractions, pushed to unconsciousness, a short sleep promoting an awakening of refreshment and renewed endeavor. My own practice is to anticipate the anesthetic with ten grains of chloral hydrate by rectum, preceded by a hypodermic of an ampule of Pantopon, but morphine (Gr. 1/4) may be given with equal result. This is not new; most physicians are familiar with the method: I find, however, that it is not usually practiced.

If the first stage has been properly managed, the patient enters the second in good physical and mental condition, but the severe pains call out protest as to endurance, and in the interest of a healthy puerpery, the patient should not be permitted too great suffering. Here some form of analgesic is most desirable, and the burning question of late seems to be which shall be selected, chloroform, ether or gas. Each of these may be used successfully, and each has its particular merits. Chloroform quickly relieves the pain and, if given properly, is devoid of danger, and leaves no unpleasant after effects. Half an ounce of this anesthetic will usually suffice for the ordinary case, and two drams is all that is often required. It has the advantage over other anesthetics in the small amount which the practitioner need carry to his case, the readiness with which it may be procured, and its safety under proper conditions for administration. Ether has the same analgesic qualities as chloroform, but its disadvantages are many. It is generally less acceptable to the patient; it must be given in larger amounts to produce the desired results, it not infrequently gives rise to nausea and sometimes vomiting—it is bulkier to transport, and, in the country, it is less readily procured. It is, however, considered "safe," by both the profession and the laity. During the past few years nitrous-exide gas has been warmly advocated by its partisans, but, after considerable experience, I conclude it the least desirable of the three analgesics. The apparatus for its administration is costly and heavy, although unquestionably making a profound mental impression on the patient; it is difficult to obtain or have on hand in constant supply, expecially in country practice, and it demands, for its administration, the presence of an experienced anesthetist. The self administration of gas by patients is most unsatisfactory.

In hospital practice the employment of nitrous-oxide gas, and oxygen is followed by excellent results in most cases, but it may not be considered absolutely free from danger. In an experience of many years covering many deliveries under chloroform and ether, no immediate or remote disasters have occurred, nor have I been requested to employ some other anesthetic at a subsequent labor, as has happened in the instance of gas. In his selection of the anesthetic the practitioner must be guided by experience and his own judgment rather than by laboratory experiments or statistical tables which have little or no bearing on the case. What should be urged and emphasized, however, is that the woman in labor is entitled to human treatment even in the accomplishment of a physiological process, and to this end some form of analgesic which will produce results, without injury to mother or child, must be administered. He surely is open to criticism, who will permit his patient to unduly suffer without attempting relief, or precipitate a possibly complicated puerperium through an exhausting and unassuaged deliver.

62 ADAMS AVENUE, WEST.

HEMOPHILIA.

G. C. STEWART, M. D.
HANCOCK, MICH.

Hemophilia or hemorrhagic diathesis is a condition characterized by an inherited tendency toward inordinate spontaneous

traumatic hemorrhages. The disorder is attributable to a congenital deficiency in hematopexis.

Injuries of a trivial nature may induce an uncontrollable loss of blood which may prove fatal. The loss of blood is not confined to surface injuries alone, but may follow the bruising of a joint producing a hemo-arthritis while serious hematomas are prone to force subcutaneously and in the muscle sheaths.

The physiological changes which would cause a vessel to continue bleeding after the formation of a clot are not fully understood. It has been determined that the coagulation time of the blood is delayed from the normal time of three minutes to thirty to sixty minutes.

Howell has attributed the imperfect clotting of the blood to a reduction of the blood's prothrombin content consequent to some functional changes in the plaques from which this substance is derived.

Recent studies of Hurwitz and Lucas, who found great fluctuations in the prothrombin of hemophiliac plasma directly in contrast to the older theory of Sahli, that a deficiency of thrombokinase, thrombozn and calcium was the factor of the imperfect hematopexis. Two types of hemophilia are described. First—Familial which is hereditary: transmitted by women, occurring chiefly in males, which occurs from earliest infancy. Victims usually die from hemorrhage in early adult life. The blood is thought to contain an anti-coagulative body. Second type—The isolated or sporadic is an attenuated form accidental without hereditary predisposition. The blood has no coagulative ferment.

P. E. Weil regarded the mechanism of hemophilia as being due in the sporadic cases to an insufficiency of plasmase secreted by the leucocytes, while in the hereditary form there was a sufficiency of plasma but the presence of anti-coagulants.

Labbe insists that there exists a friability and loss of function of the vessel-wall, some chemical process which prevents coagulation.

Certain differences between hemophilia and purpura must be recalled to differentiate them. Hess' studies of the blood show that in the hemophiliac subcutaneous puncture of the skin is rarely followed by an area of hemorrhagic extravasation, while in purpura it is fairly constant.

In hemophilia the application of a tourniquet to the upper arm produces no objective sign but in purpura this causes petechial hemorrhages upon the forearm below the constriction. In hemophilia great delay in hematopexis and no striking diminuation of the plaque count are the rule in contrast to the slightly prolonged coagulation time and sub-normal number of blood plaques in purpura.

General disturbances occur chiefly in the form of cardiac murmurs. The pulse may rise to 120 to 140 a minute. It is usually small and weak. Patients are restless, excited and nervous; complain of weakness and a sense of oppression across the chest. Nausea and anorexia are common, sometimes there is severe vomiting. The amount of urine may be diminished and haematuria is common. Edema of the face and ankles is often noted. The temperature is frequently elevated, especially in joint affections which occur with such frequency that some authors include in their definition of the condition—joint swelling and affection with hereditary tendency to uncontrollable hemorrhage.

Stempel asserts that all the different joint affections from the slightest arthralgia to the severest hemo-arthrosis are due to hemorrhage from the synovial membrane into the joint cavity.

Konig's classification of the hemophiliac joints into three stages is usually followed: First—Hemo-arthrosis, the stage of hemorrhage. Second—Inflamatory, closely resembles hydrops tuberculosis fibrinosus. Third—Contraction, scar formation and anklyosis.

HEMO-ARTHROSIS.

First—Hemorrhage into the joint may take place rapidly from the slightest injury or may occur spontaneously. A position of slight flexion or extension may be assumed but if the blood is absorbed quickly the affection will not pass into the second stage and the function of the joint may not be disturbed. If the blood is resorbed the swelling of the joint remains and the disease enters the second stage. The over-lying skin becomes red and hot. The swollen joint is spindle shaped, resembling a tuberculous-arthritis. The fluid in the joint consists of serum ad-mixed with blood. The synovia are swollen and of a brownish color. The cartilage loses its white color and is stained brown. It is softened and its surface eroded. It has been demonstrated by the X-Ray that an atrophy of the bone occurs, but the thickening of the bone which has been described is only apparent. In the third stage the cartilage becomes more croded and bands of connective tissue unite the oppos-

ing surfaces of the joints practically or completely. The capsule becomes contracted and joint cavity may be entirely obliterated. Pain in the joint bears no direct relation to the degree of swelling. The temperature may be 101 to 103 degrees. Neuralgia and neuritis are common in hemophiliac patients due to pressure on the nerves by the blood.

Treatment may be described as general and local. First—Diet is scarcely of imporance although the patient should avoid substances that raises arterial tension as alcohol, tea and spices. Milk is to be recommended on account of its calcium content.

Medicinal Treatment. The agents used as general haemostatics act in two ways. (1) Coagulants of the blood and (2) constrictors of the vessels.

First—The coagulants of the blood use the absorptive power of colloids of the blood to modify their molecular state and obtain direct coagulation.

Two classes, first mineral ions, viz calcium chloride, sodium sulphate, iron perchloride, saline solution and artificial sera; (2) substances which form complex insoluable colloids, viz gelatin, serum, organic extracts and peptone. The calcium salts are used internally or locally or as an irrigation. However authorities agree that calcium does dot cure hemophilia. The results are inconstant and temporary, of the substances which form complex, insoluable colloids, gelatin has been used extensively. First—Locally over wound. Second—By mouth, 200 C. C. a day. Third—Intravenous which seems to give the best results (but not a permanent one). Serum thereapy seems to have given the best, most permanent results. Its objects are preventive, curative, and stimulating to the marrow.

Weil has probably done the best work in this form of treatment.

The serum one uses must be fresh, that is, less than two weeks old. Human serum or that from the horse or rabbit is best. Anti-diptheritic serum can be used but beef serum is considered bad as it produces fever, etc. Anaphylaxis must be watched for.

The intravenous is the best method of administration. Ten to twenty cc are injected and repeated in four weeks.

Leary treated twenty cases most successfully with toxic symptoms (urticaria) in only one case.

The local application of serum by plugging, by compress aids in arrest of hemorrhage.

Transfusion is chiefly of use for post hemorrhagic anaemias. The result has been general improvement rather than a permanent cure in hemophilia. The necessity for proper agglutination and hemolysis tests and also a Wasserman make it an extremely slow procedure. Organic extracts of thyroid, ovary and liver have been used and their action is merely transient. Peptone has been used with moderate success given intravenously, subcutaneously and per rectum.

Under Vasoconstrictors, Ergot may aid other coagulants but by itself it is considered useless.

Adrenalin used locally and sometimes injected should be used with great care, especially contra indicated in chronic nephritis and aortic disease.

Local treatment of wounds is best done by application of serum or organic extracts.

Powdered extracts have been used successfully.

Following is a family and personal history of a case which I have had under treatment during the past year for two attacks of hemo-arthrosis of the left knee and ankle.

HISTORY OF BLEEDERS IN THE FAMILY OF NAPOLEON MARTIN

The following is a history of the family of Napoleon Martin, in which are found traces of hemophilia:

FAMILY HISTORY.

Beyond the immediate family none of the relatives on either side were troubled with bleeding, all being rugged Canadian farmers, who lived well into the nineties.

The father, Napoleon Martin, states that when quite young, he and his brothers used to have profuse nosebleeds, but none ever suffered any ill effects from same and as they became older they gradually became less frequent until they ceased entirely.

There were eleven children in the family, four girls and seven boys but all but one boy died before reaching the age of twelve. In fact all died in infancy with the exception of three boys and two girls; the girls dying of disease while one boy died as the result of biting his tongue. The wound was very small but he died after one week of continuous bleeding. The other boy had a hemorrhage of the stomach although he was not known to have injured himself in any way.

CLINICAL HISTORY.

The remaining boy, who is the only survivor of the children, has had several very close calls because of his hemophiliac tendencies.

Age 8—Extraction of tooth. Bled two weeks. Stopped with dental gum.

Age 10—Vaccination. Scab cut in some way. Bled about four days. Hardly remember how stopped.

Age 12—Extraction of tooth. Bled about one and one-half weeks. Stopped with wad of cotton and tea leaves.

Age 14—Injured in head (coal). Bled

twenty-four hours. Stopped by plugging up hole after which an infection set in.

Age 23—Removal of Tumor or Cyst. Bled about six days. Stopped by causing infection (local) to set in.

In most of these the flow of blood was stopped only after I had become very weak and my pulse very light. The bleeding in all cases was not a steady flow but a never ceasing ooze.

I might add that when a small boy I was troubled with nose bleeds of the most malignant character. My nose bled without provocation and at times caused much worry.

While in the service a new phase of my trouble made itself evident. That of the hematoma. The issue (Navy) leggings cut and aggravated the calves of my legs to such an extent that they ruptured vessels in my legs which turned out to be pronounced hemorrhages.

Hematoma of thigh, left hip—3 weeks.

Hematoma calves of both legs—leggings.

June 1920.

Hemo-arthrosis of the left knee.

Sick two weeks.

Tonsilitis previous.

On giving hypodermics of phylacogen, patient had severe hemorrhages in the arm and legs.

Treatment at that time was sodium salycylate in large doses and magnesium sulphate.

Morphine hypodermically.

April 9, 1921.

Struck left ankle with bowling ball. Also turned his ankle on the ball field causing hemo-arthrosis of that joint.

Very severe pain, stiffness, swelling and temperature.

Treatment—Strontcylate, oxyl iodide.

Demobilized the joint by putting it in a splint.

There was some blood in the urine.

Patient recovered in three weeks.

Blood count was made.

Leucocytes 4000.

Erythyrocytes 5.500,000.

Haemoglobin 90.

Blood pressure.

Systolic 122.

Diastolic 78.

Pulse 84.

Exercise 110.

No heart lesion.

REFERENCES.

Billing's Forchmeimer's Therapeutics.
Osler's Practice of Medicine.
DaCesta's Therapeutics & Medicine.

CLINICAL INDICATIONS FOR DOSAGE IN VACCINE THERAPY

The Laboratories of G. H. Sherman, M. D. (the Laboratories of applied immunology) offer the following suggestions for the practical and successful application of Polyvalent Bacterial Vaccines, with the hope that they will be helpful to you in your work while treating pyogenic bacterial diseases.

The size of each dose of Polyvalent Vaccines should be such as to excite an immunizing resistance to it by the patient's immunizing apparatus.

A fatigued immunity responds to a small initial dose. Such an immunity obtains in cases that are chronic, of long standing and carrying no temperature. This initial dose is for diagnostic purposes gives the patient's index of reaction, and points out how relatively inadequate his immunity is.

Select the proper Sherman formula and give an initial dose of two-tenths mil (c.c.) Do not repeat until the patient has built up the greatest possible resistance against this dose. That is the day when the patient is at the peak of his immunity curve, and occurs in from one to ten days. On this day the patient has a decided feeling of well being, as compared to days previous to the administration of this dose.

The proper interval between doses is most important. Each dose should be given on the patient's good day, when he is at the height of his resistance, whether this day is the next day or the tenth day after giving the vaccine. The dose should be increased according to the patient's reaction. If the reaction is severe, showing that immunity was built up with difficulty, the next dose should be the same size.

A proper reaction is a slight feeling of malaise or drowsiness on the following day; this is an indication that the patient's immunity was not overtaxed in resisting this amount of antigen.

Dosage should be gradually increased, always being given on the patient's good day, until the amount given is one mil (c. c.) or more.

A vigorous condition of the cells concerned in immunity will respond to large doses frequently repeated; such cases are acute infections in the early stages, carrying a high temperature. The higher the temperature and more acute the stage of the infection, he larger and more frequently repeated should be the dosage. In such cases give 1 mil (c. c.) of the indicated Bacterial Vaccine every 12 to 24 hours, increasing the interval as the temperature falls.

Immunologic science teaches that these infections are overcome by cell secreted protective substances and that in conformity with nature's methods, cell stimulation for the rapid production of these protective substances is best accomplished when body cells are brought under the influence of Sherman's Polyvalent Bacterial Vaccines.

Data on request to physicians.

Bacteriological Laboratories of G. H. Sherman, M. D., Detroit, U. S. A.

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August, 1921

Editorials

CATOSTOMUS COMMERSONI

The history of mankind reveals some singularly consistent and inconsistent traits. We will leave its few consistencies for discussion at some future time. This is about its inconsistencies.

One of the first familiar characters whom we meet in the history of the European peoples is the get-rich-quick stock salesman. He sold the Norse, the Goths, the Franks, the Alemanni, the Burgundians and all the strong, healthy and virile peoples who revitalized decadent Rome, all kinds of cheap thrash and valueless trinkets. He took, in return, their fine amber, wool, weapons, bone, bronze and iron instruments. He exchanged his shallow oriental finery for the necessities of life, for baskets, handiwork, blankets, horses and sheep. The unwary Teutons revelled for a short time in their newfound glitter and then, alas, they awakened to the painful realization that they were STUNG. Then they got mad, came down into the civilization of southern Europe and cleaned up on everything in their path.

Christopher Columbus, Vasco de Gama, Cortez, the Dakes—explorers and adventurers from all lands did the same with the American Indians. A piece of highly colored broken crockery brought the equivalent of a pound of gold. "New lamps for old," they cried and so exploiters have cried the world over since man began.

With all the lessons of the past, man likes to be fooled. Solon said a big mouthful, to use the street vernacular, when he admonished us to know ourselves. But few have been able to masticate or swallow it, to say nothing of being able to master its consequent digestion. We all like to be fooled, some more than others. And among those who ,as a class, are still living in the day of prehistoric European, and in the time of the American aborigine, are the class-called doctors. We have an unenviable reputation of furnishing a bright shining light for the vender of the world's worthless goods to shoot at. In other words, brethren, as much as it hurts, we are suckers—Catostomus Commersoni—members of that great catostomidae species which derives its sustenance by clinging through suction to anything that comes in its way—members of that great castomidae species which despite repeated warnings swallows the hook so clumsily baited with Bohemian oats.

We know this and laugh at it. We have been told it many times. We are not considered good business men. Perhaps that is a compliment, perhaps it isn't. Some of us would rather know something about the anatomy of the human being than that of the daily stock record. Some of us get more honest happiness out of relieving suffering than does the mightiest money captain out of his millions. But when a joke becomes a cold reality, a sinister danger, a patent and indelible fact, it is time we pay attention to the smoke and see what causes the fire.

All too frequently we encounter a doctor advanced in years, with mind and body wrecked by the demands of an active and prosperous life, who is slowly winding his way to the end of the trail and eking out an existence that is part charity and part none too efficient service. He was a capable man and had a good practice. He had friends by the score—friends who respected him. He was appraised as a successful physician who had made enough to bring credit to himself and his profession.

Then from out of the Babylonian revelry comes the glib stock salesman who writes

before the incredulous eyes of the doctor that he has been weighed and found wanting. Dr. Faustus thinks it all over. He wants to be young again, he wants the youth, the comfort, the luxury that money can buy. He knows from his books that it can't be done—legitimately. Money is his Marguerite and he wants her. So he takes a chance. Not having the prescription among his own formulas, he takes that offered him by the speculator.

Then enters reverses. He passes the half century—Osler's joke becomes a terrible reality. The speculation, like most of those in which doctors engage, goes wrong. Years of hard-earned funds are wiped out. Death enters the family circle and claims, perhaps, his closest and best bet—the wife. His son paid the price in the World War, perhaps his life, perhaps his health. The professed friends cool with the passing of the years. The strain is too much for the body and gradually comes the inevitable physical collapse. The end is in sight but there still remains a part of the rocky road where mile-stones become tomb stones mocking the weary traveler to the trail's end.

A gloomy picture, but true—all too true. It may not have been your lot but you don't have to look far to find its parallel. And, sadly, the trend is not on the wane. It's on the increase. More money has been lost out of the pockets of professional men and women this year than for many years past. We are living in a period of speculation. We want to take a chance.

We preach to our patients and to the public—don't take a chance. "Safety" is a modern household word. How safe are you against the temptations which may undermine both your mind and body? Speculation is a mental disorder not far removed from kleptomania. You would not speculate with a life—why speculate with your own life? You would not engage in a business concerning which you know nothing. Why engage in a business concerning which even those with whom you associate know as little as you do?

We seem to think it strange that we are not good investors. Yet, were this a physical or biological problem it would contain nothing which could not be seen with the naked eye. We know the influence of organic development in species. Experiments have shown us that we can regulate almost life itself through the accelerating or retarding of organic action. Likewise our development has been along a line foreign to that which is required of the investor. We have not permitted a development of that acumen necessary to a complete understanding of business logic. There is no reason to be ashamed of this. Likewise, there is no justification for ignoring it. Biologically, we have no grievance against the frog for not having wings or against the duck for seeking water. We need go no further than the mutations of Waagen to know our place. And our place, as followers of an established science is not that of the financial trickster who knows more about human gullibility than he does about the securities he peddles to unsuspecting victims.

Every physician has, or should have, sound friends who know the ramifications of business. Any good investment banker, any conservative bondhouse—and there are many of them—can furnish that which the doctor lacks in business analysis. All we need is a little common sense of the same variety that the patient displays when he consults his physician about an ailment of which he knows nothing. Speculation is a doctor's ailment which can be successfully treated by specialists. But for a good prosperous doctor to grab at any get-rich-quick offer is like the much discredited sufferer who avails himself of the services and nostrums of the quack.

Look before you cut, boys, and think before you leap.

PREVENTION AND RELIEF OF HEART DISEASE

In 1915, there was organized in New York The Association for the Prevention and Relief of Heart Disease. The announced object of the organization is: To gather information upon heart disease; to develop and apply measures which will prevent heart disease; to seek and provide occupations suitable for patients with heart disease; to promote the establishment of special dispensary classes and better hospital care for patients with heart disease. These are but the leading objects, there are others which seek for the development of the organization.

At first thought one is inclined to belittle such a movement and make the appraisal that there is but small need for such an organization. Let us stop and consider. Two per cent of the persons examined by insurance companies are rejected because of serious heart defects. Two per cent of industrial workers are found to have serious heart lesions. Two per cent of the drafted men were rejected on account of heart lesions. Almost two per cent of the school

children examined show serious heart defects. On that basis there are 2,000,000 persons, in this land of ours, who suffer from serious heart defects. For the past two years, in the Registration Area, organic heart disease has caused more deaths than tuberculosis. Under 25 years of age organic heart disease causes as many deaths as typhoid fever. Between 25 and 34 years organic heart disease causes as many deaths as lobar pneumonia. Between 35 and 44 years organic heart disease causes more deaths than Bright's disease. After 45 years organic heart disease shows a higher death rate than any other cause.

In organic heart disease we have a condition equal in importance to tuberculosis and cancer. These facts just recited may be common knowledge to some of the profession but not to all. They demonstrate the need for an association whose objects we have recited.

This morbidity and mortality can be reduced. What is needed is education of the people and the profession. Then there must follow systematic physical examinations yearly or better, semi-annually. The early detection of foci of infection and their removal is extremely essential. Those afflicted require supervision, possibly change of occupation and mode of living. The establishment of cardiac clinics and providing of cardiac beds or sanataria are of equal importance. Preventative measures must be imparted. The field for activity is broad and if developed, can and will accomplish startling results as have other organized movements that sought to lessen and eradicate physical afflictions.

We are proffering these possibilities for the consideration of our members. Are you ready to undertake this organized effort in Michigan?

PUBLICITY

On several occasions we have commented upon the need of the right kind of Publicity for the medical profession and for the education of the public. The sentiment to such a policy is becoming more favorable and there are now under consideration plans for the development of Educational Measures for the Enlightment of the Public in regard to medical problems and preventative medicine.

In that connection we call attention to the following memorial presented to our House of Delegates by the Committee on Ethics of the Wayne County Medical Society:

May 21, 1921

House of Delegates,

Michigan State Medical Society,

Gentlemen:

The Committee on Ethics of the Wayne County Medical Society hereby begs to memorialize your honorable body along the lines of the broaded education of the public and the diffusion of a well-digested, well-rounded medical propaganda.

This Committee feels most strongly that the medical profession owes the great public much. From the public the profession receives its livelihood and is accorded its high social standing. In return, there is doled out to it driblets of medical lore and droplets of medical information. As opposed to the knowledge doled out by the regular profession, we are confronted with a wide propaganda from all the cults and isms and schisms in the world. To them, science means nothing and the art of medicine is a by-word. Medical mis-information is handed out in bucketfuls because there is no truth in it. Through the medium, however, of the press, billboards, circulars, hand-bills and letters through the mails, travestion upon scientific discussions and reports of alleged cures through quackery methods are handed out to an undiscerning public. If we reprove the public for its undiscernment, it retorts that what it receives from the quacks is the only information on medical lines that it can get, and that if the medical profession desires to instruct it scientifically, they should proceed to do so with the same freedom as the chiropractics, osteopaths, et id genus omne.

The Committee feel that the public has truth in what they say, and their arguments come to them with force and power. We beg to recommend to your honorable body that legislation be enacted whereby power shall be given to the various consituent committees and bodies of the society that propaganda along the lines of general or special medical education to the public, vouched for as ethical and right, be offered to them. We desire that suitable safeguards be thrown around this propaganda and its exponents so that neither a person, nor groups of persons, shall be unwarrantedly advertised, and so that the spirit of medical morals existing in the societies of the state and the country during the past many years, shall in no way be injured or transgressed. We believe that ethically, the principles we have inculcated are right and correct, and that the only necessity in connection with the matter is to observe the

correctness of etiquette and the rectitude of morals which has always enrapped our societies.

It has seemed to this Committee that a memorial such as this should come from a committee such as ours, so that the society may understand that the members constituting the Committee are in wholehearted sympathy with the development of propaganda just indicated.

Respectfully submitted,

(Signed) W. M. Donald, M. D.
" Herman Sanderson, M. D.
" Delos L. Parker, M. D.
" Frank A. Kelly, M. D.

Ethics Com. Wayne County Med. Society.

Editorial Comments

With one mother dying for every 205 babies born in New York city, with an obstetrical death rate second only to that of tuberculosis, with 40 to 50 per cent of obstetrical deaths due to sepsis, with a mortality today the same as twenty years ago and with 61 per cent of all gynecological surgery as a direct result of poor obstetric practice—with these facts confronting us, it is indeed imperative that obstetrical practices must be improved.

Just where the fault lies, what the remedy must be, we are not prepared to state. It is a fact that obstetrical practice has not kept abreast with our progress in other lines. We are inviting a discussion of the problem.

Of the creating of examining boards there seems to be no end. Just as soon as a representative number of men pursuing some single line or specialty get together and form an organization up pops a movement to create a special licensing board. Now come the radiologists who wish to eliminate the "lunatic fringe"—"a bunch of incompetents, invincibly ignorant but thoroughly conscienceless in their pursuit of "easy money." It is observed that a law is passed, a board is created, examinations are conducted, certificates are issued and the fee is collected. Then the movement ends for no one desires to file complaints and the board states it has no police powers, or, has no funds to carry out the police power. So in the end, what is the use?

Again new advertisers appear in our advertising pages. We earnestly solicit your patronage for not only these new firms but also for those who have long been our patrons. It is they who make The Journal possible. Write to them and tell them why you are buying from them.

The other night, while at a summer resort, a lad of 23, unable to swim stepped in a deep hole and before anyone could reach him, sank. After 20 minutes of persistent diving, on the part of the Coast Guard crew, the body was recovered. Immediate examination revealed completely dilated pupils, cyanosis and no heart action. Artificial respiration was undertaken to empty the lungs of water. Cardiac and respiratory stimulants were given by hypodermic. Heat and massage of the extremeties were applied. After a persistence with these measures for about a half hour we advised discontinuance because of failure to restore cardiac or respiratory action. The captain of the Coast Guards stated that they were compelled by regulation to continue artificial respiration for two hours. The query we wish to make is—what is the basis for such a regulation? It has been our experience that whenever heart action is arrested in a person by reason of drowning or because of an electrical shock, it has never been possible to restore it. We have never heard of a method that would or ever did. Startling head lines in newspapers tell at times of resuscitation after two or more hours of effort, but in none of these cases has there been a complete cessation of cardiac action. We invite the report of cases, if there are any, where such a person has been revived and in whom careful examination revealed that at the time resuscitation was undertaken all heart action had ceased. We believe in making every effort to revive a person, but can see no reason why these efforts should be empirically persisted in for two hours. We repeat, as we stated several years ago when discussing the value of the pulmotor, that arrest of cardiac action for a period of three to five minutes precludes the resestablishment of cardiac function. When reports to the contrary are made it may be assumed that complete arrest of heart action did not exist. If we are in error we solicit correction.

Those who served in the Medical Corps are urged to file their application for their share of the state bonus. Legion posts or the Adjutant Generals office at Lansing will supply you with the necessary blanks. These blanks must be filled out with careful detail and every question answered. When you receive your voucher invest it in a good bond and with the interest money that you receive from that investment, purchase a subscription to a good Medical Journal, preferably The Journal of the American Medical Association, or a recent text book. By so doing you will obtain the greatest good from your bonus. Never mind a new set of tires for the old tin liz—these can be gotten any time. Remember, we advised a good bond, not a stock gamble.

Something for nothing. As a rule we look askance at such offers. There are times when the offer is genuine, with no strings tied to it. Such an instance presents this month in our advertising pages. Mead & Johnson offer to send you free a Physician's File Box. A postal card, one cent, brings it to you. Will you not write to them and thus also demonstrate that advertising in our Journal pays?

In running through our advertising pages you will find that if you invest about 10 cents you will receive in return, samples, literature and other useful articles to the value of $6.00. Surely you are willing to spend 10 cents to receive merchandise to the value of $6.00. Please aid us in holding our advertisers, and don't forget to write to our new advertisers, this month.

Deaths

Doctor Harlow B. Drake was born in Freemont, Indiana in 1848 and died in Detroit, July 5, 1921. His father, Doctor Elijah H. Drake, moved to Detroit in 1852. Doctor H. B. Drake was educated in the Detroit Public schools. He graduated from the School of Technology in Boston in 1869. In 1873 he received the degree of Doctor of Medicine from the Hahnemann Medical College and Hospital of Philadelphia. He at once came to Detroit and

began the practice of Medicine. Eight years later the doctor was obliged to give up his work because of broken health and went west to live on a ranch. After seven years of outdoor life, fully recovered in health, he settled in Portland, Ore. He remained there till 1901 when he returned to Detroit, where he has practiced ever since.

He was a member of the Wayne County Medical Society, the Michigan State Medical Society, the American Medical Association, the Detroit Practitioners club, the Homeopathic Medical Society of Michigan, the Oregon Homeopathic Medical Society and the American Institute of Homeopathy. He was also a member of the Grace Hospital Staff, the Sons of the American Revolution and the Union Lodge of Masons.

Doctor Drake married Miss Eleanor C. Swain, who died in 1910. He is survived by two daughters, Mrs. E. N. Johnston and Miss Eleanor Drake.

Devotion to his profession and untiring care of his patients are the outstanding characteristics in the long and successful career of Doctor Harlow B. Drake.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

For Sale—Drugs, Instruments, Office Furniture, of the late Dr. J. J. Defendorf of Ionia. Splendid opening for a successor. Address Mrs. J. J. Defendorf, 110 W. Main St., Ionia, Mich.

The annual meeting of the Upper Peninsular Medical society will be held Aug. 25 and 26 at Marquette, Mich. The following program has been prepared:

President's Address—R. A. Walker, M. D., Menominee.

Dentigerous Cysts, with lantern slide demonstration—W. J. Anderson, Iron Mountain.

A Case of Chronic Ether Poisoning—A. F. Fisher, Hancock.

Pre-antiseptic Period—A. I. Lawbaugh, Calumet.

State Hospital Activities—E. H. Campbell, Newberry.

Fads and Fancies in Medicine—F. McD. Harkness, Marquette.

Tropical Medicine—A. K. Bennett, Marquette.

Treatment of Pneumonia with Radical Changes—R. A. Burke, Palmer.

Doctors R. W. Streat, A. McArthur and R. A. Stephenson have been appointed part time city physicians of Flint.

Dr. M. W. Clift has been elected president of the Flint Rotary club.

Dr. Lafon Jones has resigned as school physician of Flint and has engaged in private practice, limiting his work to Pediatrics.

Dr. C. B. Burr has returned to Flint after spending the winter in Los Angeles.

Dr. F. A. King has re-located in Benton Harbor.

Doctor David Inglis, who has regained his health, has resumed his practice at Ann Arbor, Mich. Practice is limited to office and consultation work by appointment in nervous diseases. Offices located at 1211 Prospect St., telephone 2494-J.

Doctor Joseph Johns has been appointed city physician and health officer of Ionia.

Dr. Walter J. Wilson of Detroit has moved to new offices in the David Whitney building. He has installed a new electro-cardiograph.

Doctor R. J. Hutchinson of Grand Rapids is spending July and August at his summer home in Canada.

Dr. and Mrs. J. R. Rogers of Grand Rapids sailed for Europe the last of July and will be abroad for two months.

Dr. C. W. Edmonds has resigned as secretary of the Faculty of the Medical Department of the University.

Dr. J. A. Humphrey has resigned as health officer of Lansing.

Dr. D. H. Riffer has located in Petoskey.

Dr. J. K. Parish and Miss Evelyn Boss were married June 21 and will make their residence in Hermansville.

Dr. and Mrs. W. A. Evans of Detroit are spending July and August in England and France. The doctor will visit the principal radiological laboratories.

Doctors Guy L. Kiefer and Frank B. Tibbals of Detroit attended the 25th reunion of their class at Ann Arbor, June 28.

Dr. and Mrs. Carl F. Muenz of Detroit opened their summer cottage at Pearl Beach, July 1.

Mrs. Guy L. Kiefer of Detroit opened her summer home at Mackinaw the early part of July. Dr. Kiefer will spend the month of August there.

Mrs. H. R. Varney of Detroit is spending the summer at the Le Cheneaux club. Dr. Varney will join her in August.

Dr. O. S. Armstrong of Detroit will spend the month of August with his son at Nantucket.

Dr. J. B. Kennedy of Detroit will spend the month of August touring in Ontario and visiting with his many friends.

Doctors R. J. Baskerville and W. Y. Kennedy of Detroit will spend the month of August cruising in Georgian Bay.

Dr. and Mrs. Charles Kennedy and family opened their cottage at Pearl Beach the first part of July. During August the doctor will spend the "week-ends" there.

The University of Michigan conferred in June the degree of Doctor of Laws on Sir Auckland Geddes, British ambassador to the United States.

He was Professor of Anatomy at Edinburgh and later at McGill University. During the World War he served the British government as Director of Recruiting, as Minister of National Service, and as President of the Board of Trade.

Dr. and Mrs. G. C. Caron and Miss Margaret Caron of Detroit spent two weeks in July at Burt Lake.

Dr. George Lowrie of Detroit will take a two weeks trip through the Georgian Bay region in August.

Dr. D. A. MacLachlan of Detroit was elected Honorary President of the American Institute of Homeopathy at its 77th annual meeting in Washington, D. C., June 18-25.

Dr. Carl Eberbach has been appointed assistant to Dr. Hugh Cabot, dean of the Medical Department of the University of Michigan.

The University of Michigan in June conferred the degree of Master of Arts on Dr. Harry L. Canright, dean of the Medical Department of the university of West China. The doctor graduated from the Medical Department of the University of Michigan in 1889.

Dr. Emma E. Bower of Port Huron was elected President of the Michigan Woman's Press Association, July 1.

Dr. John B. Rieger was married to Miss May Hoover June 23. Both the doctor and his wife have been and are residents of Detroit.

Doctors J. W. Vaughan, T. B. Cooley, P. Morse and Alpheous Jennings left Detroit shortly after the Fourth for a sailing trip in northern Michigan. They were gone one month.

The Burns club of Detroit held their annual banquet at the Hotel Tuller, July 23. Dr. J. B. Kennedy acted as toastmaster.

Dr. and Mrs. L. J. Hirschman of Detroit sailed July 5, on the Empress of Britain from Quebec for a several month's trip to England and the Continent. Dr. and Mrs. A. D. McAlpine of Detroit also sailed on the same boat.

Dr. and Mrs. R. M. Richards of Detroit spent their summer vacation at the Mettawas, Kingsville, Ontario.

Mr. Tracy Waters Southworth, son of Dr. and Mrs. C. T. Southworth of Monroe, was married to Miss Louise I. Lauer, June 16. They will make their home in Monroe.

The annual meeting of the Michigan G. A. R. was held in Flint, June 23. Dr. Robert LeBaron of Pontiac was elected department medical director.

Dr. and Mrs. Francis Duffield of Detroit opened July 1, their country house "Stoney Creek" near Rochester, Mich.

The Faculty of the Medical Department of the University of Michigan gave a dinner, June 23, at Barton Hills Country club in honor of Dr. and Mrs. V. C. Vaughan. Dr. Frederick Novy, for the Faculty, presented Mrs. Vaughan with a pin, set with diamonds and saphires.

Mary Sekelyn of Detroit who has been giving pink, green and blue bath as a cure for tuberculosis in her bath house on the Seven Mile road near Woodward Avenue, was found guilty of practicing medicine without a license. Judge Heston of the Recorders Court sentenced her June 25, to six months, without fine, in the Detroit House of Correction. The case was investigated by Maj. Roehl, special investigator of the Detroit Department of Health and by Charles Lambert and William Quinn, detectives of the Prosecutor's staff.

Dr. and Mrs. Morrell M. Jones left Detroit in June for a tour through New York and Massachusetts. They will attend the reunion of the 26th Division in Boston with which the doctor served during the World War.

Dr. and Mrs. F. B. Tibbals of Detroit opened their cottage at Hickory Island the last of June. The doctor spends his "week-ends" there.

Dr. and Mrs. H. N. Torrey left Detroit July 22, for a two weeks' cruise on Lake Superior on their yacht Tamarack.

Dr. and Mrs. J. Henry Lanchaster, formerly of Detroit, have returned from Italy and have opened their cottage at Manchester-by-the-Sea.

Henry F. Vaughan, Commissioner of Health of Detroit, announced July 7 that the new Detroit Tuberculosis Sanatorium at Northville will open October 1. The delay is caused by the installation of equipment.

Dr. and Mrs. A. Milton Humber left Detroit the early part of July for an extended tour through the Canadian northwest and Alaska. They will be gone two or three months.

Dr. and Mrs. Max Ballin of Detroit spent the month of July at the Rockmere Hotel, Marblehead, Mass.

Mrs. T. B. Cooley and family left Detroit July 9 for Crystal Lake where they will spend the summer. Dr. Cooley will join them later.

Dr. and Mrs. E. C. Van Syckle and daughter of Detroit spent the summer in their cottage in Kingsville-on-the-Lake, Ontario.

Dr. Alfred S. Burdick has been elected to fill the vacancy as president of The Abbott Laboratories caused by the death of Dr. W. C. Abbott. He is a graduate of the Alfred University, Alfred, N. Y. and Rush Medical College, Chicago. He has been closely associated with The Abbott Laboratories for over 17 years, and for the past six years has been vice president and assistant general manager.

Dr. G. M. Byington has resigned from state and federal public health work on July 1 and will resume practice at Charlotte.

Mrs. E. H. Webster, wife of Doctor E. H. Webster of Sault Ste. Marie, Mich., died at Johns Hopkins Hospital, on June 14.

County Society News

ACADEMY OF SURGERY OF DETROIT

The fifth regular meeting of the Academy of Surgery of Detroit was held at the Wayne County Medical Building on Friday evening, June 3.

The program for the evening was as follows:

Case report, "Wandering Liver," and "Skin Graft of the Leg," by Dr. Wyman Barrett. Discussion by Drs. Bell, MacCraken and Walker.

The paper of the evening was given by Doctor W. H. MacCraken, dean of the Detroit College of Medicine and Surgery, on "Electrolytic Decomposition and Ionic Functions in the Human Body." Discussion by Doctors Bell, Yates, Chas, Kennedy and McLean.

Election of officers for the year 1921-1922 was as follows:

President—F. B. Walker.
First Vice President—Frank Kelly.
Second Vice President—H. K. Shawan.
Secretary-Treasurer—Ira G. Downer.

The vacancy on the Executive Committee left by Dr. MacMillan's term of office expiring was filled by election of Angus McLean for a term of three years.

The following men were received into Active membership: Milton Darling, R. J. Palmer, W. D. Barrett, John Bell, Louis Hirschman, Alexander Stirling, W. R. Clintion, George Meyers, Stephen Knight, W. K. Shawan, W. Yates and George Potter.

The following men were received into Associate membership: H. E. Randall, Flint, Mich.; Carl Fuller, Windsor, Ont.; F. C. Warnshius, Grand Rapids, Mich.

The following men were received into Honorary membership: Admiral William C. Braisted, Washington, D. C., and Maj. Gen. Merritt W. Ireland, Washington, D. C.

Motion made and carried that the regular time of the meetings be changed to the second Friday of the month, the next meeting coming on Sept. 9.

Motion to adjourn. Carried.

Ira G. Downer, Secretary.

REPORT OF TUSCOLA COUNTY MEDICAL SOCIETY

The Tuscola County Medical Society met at the Hotel Montague at Caro, Mich., June 15.

Senator Johnson of Fostoria, Mich., gave us a talk on his experience in the last session of the legislature.

Dr. Jones of Bay City, Mich., read a very interesting paper on "Radium, Its Use in Malignant and Non-Malignant Growths." The paper was well prepared and well received.

It was decided to have a picnic at Bay Port, Mich., on July 14th to which we were to take our families and have a good time. Huron county physicians were also invited. The secretary was instructed to make necessary arrangements with Dr. Howell of Bay Port for the supper.

H. A. Barbour, Secretary.

GENESEE

The Genesee County Medical Society met Wednesday, June 15, President Orr presiding. Dr. Frankwood E. Williams, New York, Associate Director of the National Committee for Mental Hygiene, addressed the society on "The Relation of Medicine to Criminology." He referred to the part psychiatry is playing in the industries in the east. Subnormal types should be identified in the schools, and such individuals should have training in special schools or institutes. Many psychopathic criminals who are repeaters should have indeterminate sentences as they can get along in community life if properly supervised by a psychopathic clinic. He referred to the changing activities of the pschiatrist, who is no longer entirely concerned with the chronic insane, but is applying his knowledge to help solve many social problems that constantly come up in the courts, schools and industries.

W. H. Marshall, Secretary.

Book Reviews

RADIENT ENERGY AND THE OPTHALMIC LENS. Frederick Booth. Cloth, 226 pages, 230 illustrations, price $2.25. P. Blakiston's Son & Co.

Mr. Booth, in collaboration with others and aided by his large experience and a study of the literature, presents in this volume the principles of Optics. He also takes up the eye from the optical standpoint—accommodation, convergence, the lens, transposition, etc. The higher mathematics have been omitted whenever possible. For the better understanding of the optics he has included radient energy, taking in connection there with the ether theory, light, actinic, heat and the various other light rays, etc. The various theories of light are carefully explained and illustrated by self-explanatory drawings. The subject matter is presented in a plain and direct manner with omission of superfluous words, obsolete methods and the exclusion of illustrative cases.

The book presents a compilation of a large number of facts taken from available sources. Nothing is left to the imagination and the book forms a concise and comprehensive compendium for reference.

MANUAL OF OPERATIVE SURGERY: John F. Burnie, M. D. Eighth edition, revised, enlarged. 1628 illustrations. P. Blakiston's Son & Co., Philadelphia. Price $12.00.

With a reputation well earned and maintained through its seven editions, this eighth edition, if anything, surpasses the others. It is a text that every surgeon should own for he can turn to it when in trouble and receive sought-for assistance. The greatest changes have been made in the chapters on Thoracic, abdominal, and plastic surgery.

The text is up to date in practically every detail. Some obsolete proceedures are incorporated and might well have been omitted. However, they serve as exhibitions of progress when compared with the recommended proceedures.

This new edition merits well a position among our leading reference texts. In acquiring it one will frequently depend upon the information it imparts. We commend it heartily.

OPERATIVE SURGERY: John J. McGrath, M. D., F. A. C. S., Professor of Surgery, Fordham University. Sixth revised edition. 836 pages, 369 illustrations. Cloth, price $8.00. F. A. Davis Co., publishers.

This text book for a number of years has met with favorable reception by the profession and is now presented in its sixth edition thoroughly revised and up to date. It maintains all its previous merit for existance and added thereto we find that it is complete in almost every detail in relation to the recent advancements and our present day principles of surgery.

The Secretary of the Society will please notify the State Secretary immediately of any errors or change in these offices.

COUNTY SOCIETIES

BRANCHES OF THE MICHIGAN STATE MEDICAL SOCIETY

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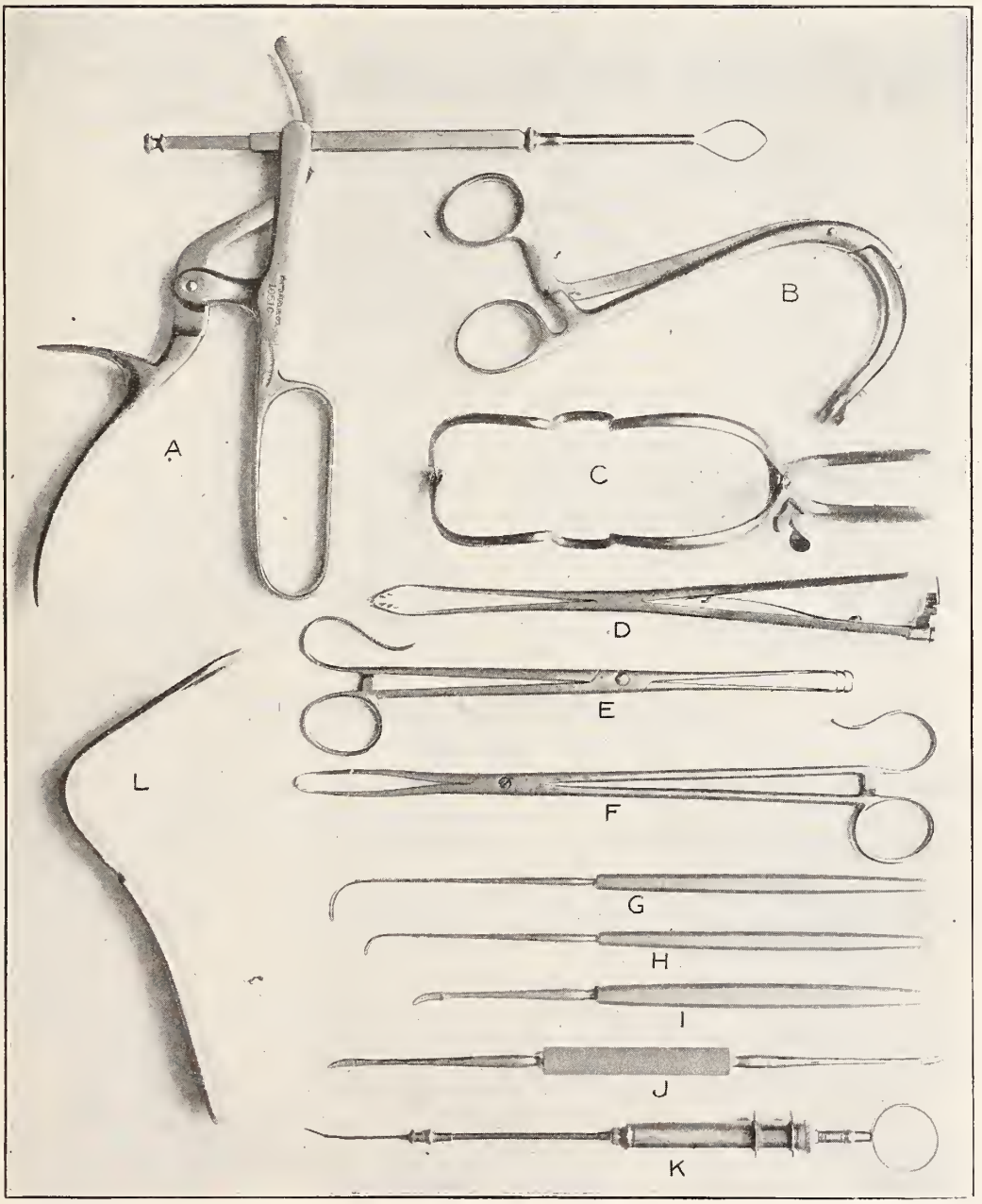

The above instruments are used by Drs. Robb and Pino, two well known throat men of Detroit, in their local and general tonsillectomy.

They are all of special design and their practicability is assured. Each instrument is fully guaranteed against defects and is made of the highest grade material obtainable.

"A" Hardy Tyding Snare (genuine)	$11.00
"B" Improved Goose Neck Tonsil Compression Forcep	$10.00 each, $18.00 pair
"C" Lock-tite Mouth Gag	$8.50
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"G" Tonsil Knife, double edge, can be used right or left	$2.50
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"I" Dissecting Knife, (special semipointed blade)	$2.25
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"K" Tonsil Syringe (all metal)	$3.00
"L" Tongue Depressor—The only one that satisfactorily retracts the tongue and prevents the throat from closing	$2.25
Set complete with two Goose Neck Forceps	$65.00

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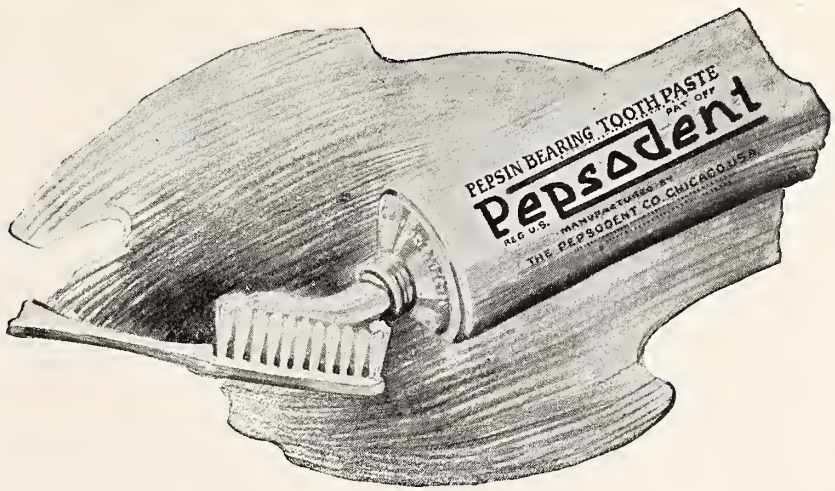

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Original Articles

THE GIANT MAGNET IN OPHTHALMOLOGY*

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DETROIT, MICH.

The first reference I have been able to find in the literature on the use of the magnet in ophthalmic surgery, was in the first volume of the Royal London Ophthalmic Hospital Reports in which Mr. Dixon recorded the unsuccessful use of a large magnet in a case of steel in the vitreous. The man was injured on December 2, 1858, while knocking an iron hoop off a cask with a chisel. The edge of the chisel broke and penetrated the upper lid, the conjunctiva and sclera and lodged in the vitreous where it could be seen with the ophthalmoscope. The magnet attracted the steel, but it was removed by forceps through a scleral section, leaving the eye in good condition. Mr. Dixon remarked that there was a certain lucky chance in such cases without which the most skilful manipulations might fail of success. Prof. Haab presented his first paper on the use of the giant magnet in 1892, something over a generation later and the literature since this time has been voluminous. In 1903, Dr. Leartus Connor published a paper in the **Journal of the A. M. A.** on "The Giant Magnet in Ophthalmic Surgery—Report of Two Cases—Remarks." In 1910, Dr. Charles Stedman Bull of New York published a short paper, "The Post-Operative History of Eighteen Cases of Magnetic Foreign Bodies Removed from the Eye by the Haab or Giant Magnet." His results were very discouraging. Phthisis Bulbi resulted in six cases and sympathetic uveitis in eight cases, and enucleation was necessary in ten cases. The vision was permanently lost at the time of the accident in five cases. There was immediate useful vision in two cases. Permanent useful vision was not gained in any case. This seems a decidedly gloomy outlook. In the last ten years, the literature has continued to grow and the opportunity to see such cases in an industrial city like Detroit has been a rich one. I shall not burden you, however with a review of the literature but ask your attention to a few cases which have come to my notice.

The first point to be considered is, of course, whether or not there is a foreign body and if one, where located. The problem is entirely different when there is a foreign body outside the globe. Within a small margin of error, the X-Ray in competent hands can give a decisive answer to this question. The British, during the war, held an X-Ray was not indispensable in these cases and were accustomed to use the giant magnet without waiting for an X-Ray when through pressure of other work, this was not immediately available. I have three cases in which the foreign body was localized in the orbit outside the eyeball and for this reason was not touched and has not at least to my knowledge, given trouble since. Two of these it is true were lead and hence the question of the magnet did not enter.

W. H., a vigorous man of 37, while riding on the river, was peppered with small shot from a little cannon fired to celebrate the closing of the season. There was in addition to a number of wounds in the legs, one about 1 cm below the outer canthus of the left eye. No lesion could be made out in the fundus and the X-Ray located the shot about 4 mm back of the ball and outside the optic nerve. This has been permitted to remain and has given no trouble in something like six years.

The second case of bullet wound was not so fortunate as the shot went through cornea, lens and posterior coats of the eye, finding lodgement in the back of the orbit near its apex. The sight was of course practically destroyed by the wound but the eyeball was preserved.

The third case was one where a chip of cast iron penetrated the cornea, lens and posterior coats of the eye. This was unaffected by the giant magnet and was localized behind the globe in the orbit,

*Read at 56th Annual Meeting, Bay City, May, 1921.

where it was allowed to remain and a report one year later showed the eyeball was giving no trouble and there was some little vision in the eye.

In all these cases, the localizing of the foreign body outside the eyeball was of great service, especially as to prognosis.

Simple inspection may be sufficient to demonstrate the presence of a foreign body. On the other hand the inability to find any wound of entrance does not exclude a possible intraocular foreign body. The giant magnet is of very considerable service in removing steel which has become deeply imbedded in the cornea or even in cases where the steel is subconjunctival. I have seen 4 or 5 conjunctival cases, one of which will be enough to mention here.

R. R., aged 42, was struck in the right eye about a month previously and came in with a small raised phlyctenule at the outer segment of the eye. There was some slight conjunctival congestion around this and a small piece of steel was removed with the magnet from its center.

While steel in this situation would doubtless not do the eye any material harm, the giant magnet certainly facilitates its removal and leaves the eye in better condition than if the steel is left in situ.

A minute fragment of steel deeply embedded in the cornea is sometimes very difficult to remove mechanically and may even be pushed into the anterior chamber in the efforts to remove it. The magnet removes these with less trauma and obviates the danger of pushing them still deeper. I have notes on some 7 or 8 of these cases, one of which will suffice for our present purpose.

J. F., aged 6, was struck in the right eye with a fragment of steel. There was a wound of the cornea, at the upper and outer quadrant and a small foreign body was found embedded in the cornea and with its inner extremity protruding into the anterior chamber. This was removed by the giant magnet through the wound of entrance and the eye made a good recovery.

There is in this class of cases very little danger of serious impairment of vision as the wounds are apt to be clean and the healing leaves little more opacity than an ordinary foreign body in the cornea.

The most favorable cases aside from these where the steel is embedded in the external coats of the eye, are those with just sufficient force to penetrate these coats. I have two cases in which the steel was in the anterior chamber and had not injured the lens.

The first case was seen in 1910. W. G., aged 29, was struck in the right eye. The steel entered through the lower part of the cornea and was in front of the iris in the lower part of the anterior chamber. It was found impossible to extract without enlarging the wound of entrance but this was done and the eye left with practically normal vision.

The other case was H. R., aged 34, who had a small particle not much larger than the point of a pin in his anterior chamber. There was a small wound of the cornea, a little up and out from center. It was impossible to see this foreign body when at rest but the magnet imparted to it a lively motion and its extraction left a sound eye with a clear lens and normal vision.

Dr. Leartus Connor had a similar case in October 1903, except in this case the steel was embedded in the iris below and so was removed with more difficulty, leaving however, the lens uninjured.

Five cases of foreign body in the lens are reported of, from a few days to two years' duration. In none of these cases was the eye lost and good vision was obtained in those where it was possible to remove the cataract and follow the case to completion.

A man, aged 35, seen with Dr. Thuner, had a very minute particle imbedded in the lens and this was removed through the wound of entrance by the magnet, leaving, of course, some lenticular opacity.

F. H., aged 25, was seen by Dr. Leartus Connor in 1902 with a history of injury six days before. The steel was embedded in the lens and was removed with a good deal of difficulty because of the large size of the fragment and its becoming entangled in the iris tissue. A strabismus hook had to be entroduced into the anterior chamber in order to make direct contact between the steel and the magnet.

W. D., aged 19, was seen in 1904. A couple of months before, he noticed his left eye failing. His lens was cataractous and on dilating his pupil, a spot was noticed at the upper and outer quadrant of the lens. The giant magnet was used and displaced this particle which came easily into the anterior chamber. A corneal section, in the lower segment, permitted the removal of the steel and a considerable portion of the soft lens matter. He subsequently got normal vision with the aid of a cataract lens.

J. B., aged 28, was struck with a good sized bit of steel, cutting the cornea and imbedding itself in the lens. This was removed through the wound of entrance without enlarging it or introducing any instrument into the eye.

W. M., aged 33, was first seen by Dr. Leartus Connor in 1901. He had been struck in the eye with a bit of steel while hammering a hoop on a paint barrel. The eye quieted down and he had good vision for about a year. The lens then became opaque but he had no discomfort until 1903, over two years after his accident. The eye then became very painful and the steel was removed through a keratome incision in the cornea. He later had good vision with a cataract lens.

In the cases of steel in the vitreous chamber, some have been extracted by the anterior route and others through scleral incisions. Where the lens was seriously injured and the steel was small and not too irregular, the anterior route has been most often employed. Where the wound of entrance has been behind the ciliary body and the lens intact or where the anterior extraction has failed, the scleral route has been used, if possible through the wound of entrance and if necessary through a scleral

incision. As a general rule, the fewer instruments introduced into the eye, the better the ultimate result. However each case has to be considered on its merits.

H. G., aged 36, was struck in the right eye with a chip of steel two days before. There was a corneal scar near center, shallow anterior chamber, cataractous lens and small hypopyon. The steel was drawn around the iris, but could not be removed through the corneal wound and a section had to be made with a keratome. The eye quieting down in a couple of weeks, a linear extraction was done. Some vitreous followed the soft lens matter and came out through the corneal wound. The eye made a good recovery and when seen nine years later, he could still see about 20-30 with a cataract lens.

M. L., aged 35, was struck in the right eye with a piece of steel 5 days before. The lens was cataractous and the steel was removed through the wound of entrance with the giant magnet. Four months later, a linear extraction was done and immediately after the capsulotomy, as in a number of these cases, the vitreous seemed to come through the lens as if the foreign body had made a track which the vitreous kept open. In fact in this case, the vitreous presented itself so freely as to interfere greatly with the removal of the cortical matter. However some months later, he saw 20-30 with a cataract glass.

J. M., aged 33, was struck in the right eye with a bit of steel 5 days before. The lens was striated and the steel was located toward the nasal side of the globe in the vitreous. It was removed by the giant magnet through a scleral incision. This patient had a cataract when I saw him last and may have been operated on by someone else since.

H. G., aged 29, was struck in the left eye with a bit of steel 2 days before. There was a small linear scar just above the pupil, the iris was notched and the lens cataractous. The steel was removed through a section in the lower part of the cornea. The iris prolapsed and was excised. A few weeks later, he had a linear extraction done and still later a needing gave him 20.30 vision with a cataract lens.

L. F., aged 24, was seen shortly after his accident. He was hit in the right eye with a bit of steel. The eyeball was soft. There was a wound in the upper inner quadrant of the cornea, the iris was torn behind the wound, the lens and media were hazy. The X-Ray localized the steel in the back of the eye near the disc. This was removed by Haab's method through a corneal incision. The eye never had good vision but the eyeball was saved and the other eye was not affected.

L. D., aged 44, was reported by Dr. Leartus Connor. The steel was removed from the right eye in this patient by the anterior route.

H. B., aged 27, was struck in the left eye with a small piece of steel penetrating cornea and lens. The steel was removed through the wound of entrance. The eyeball was saved but he escaped from observation still in possession of his cataract.

J. S., aged 29, was struck in the right eye about 27 hours before. There was a central corneal wound, opaque lens, marked ciliary injection and small hypopyon. The steel was localized well back in the vitreous and removed with the giant magnet through the wound of entrance. About two months later, a linear extraction was done but a needling was refused so that his vision could not be brought above 20-200.

J. S., 32, was seen a couple of days after injury. There was marked ciliary injection, off color iris, small hypopyon, semi-dilated pupil, lens and media not clear and a small central corneal opacity. The X-Ray was doubtful. Two days later a very small foreign body was located on the nasal side in the vitreous. This was removed with considerable difficulty through an incision in the internal rectus muscle. It was necessary to introduce a strabismus hook into the eye and the final result was the saving of a good eyeball with about 20-100 vision.

One of our earliest cases was F. S., aged 28, who was first seen in 1901 and returned in December 1903. At this later date, the left eye showed marked siderosis, iris discolored and sluggish and lens cataractous. He had some X-Ray plates showing a foreign body. There was some sympathetic irritation. A good sized piece of steel was removed with the giant magnet after a corneal section and an iridectomy downward had been made. The patient made a good recovery and was seen some years later in good condition without, however, much vision in the injured eye.

A. S., aged 18, was reported by Dr. Leartus Connor, and had a large piece of steel removed from the vitreous by the anterior route. The vision was nil and the case not followed long by us.

A. W., aged 24, had a central injury to the right eye by a small foreign body which had not injured the lens enough to prevent a view of the fundus. The X-Ray located the steel just back of the eyeball but the ophthalmoscope showed something in the lower part of the fundus and this was drawn into the anterior chamber and removed through a corneal section. The lens was not removed and he saw 12-200.

F. Z., aged 24, was struck in the right eye with a bit of steel which was localized in the vitreous. The lens showed some opacity and the steel was removed by the anterior route on the second attempt. At the first operation, it was so entangled in the iris that I was unable to get it into the anterior chamber. On the second attempt, a corneal incision was made and the steel delivered by the giant magnet. The iris was then replaced and the eye made a good recovery with 10-200 vision.

F. T., aged 18, was struck in the right eye one week before. He had a small linear scar in center of cornea, some opacity of lens and slight ciliary injection. The X-Ray located it in the lower part of the vitreous. The magnet removed this through a corneal incision and the patient made a good recovery with 20-50 vision in spite of a partial cataract.

J. N., aged 22, was struck in the left eye a few hours before. There was a large subconjunctival haemorrhage and a cut in the sclera about 6 mm internal to the limbus and slightly below center. The steel was removed through the wound of entrance without any enlargement or the introduction of any instrument into the eye and the patient was discharged in a comparatively short time with 20-15 vision.

J. E., aged 21, was struck in the right eye a few hours before. The eye showed marked subconjunctival haemorrhage and a horizontal cut in the conjunctiva about 6 mm back of the limbus and about 3 mm long. The eyeball was soft. The fundus showed a white spot near site of injury. The steel was removed with the giant magnet through the wound of entrance. He was discharged with normal vision and a scar in the retina and chorioid at the site of the trauma. These last two cases were very similar and extremely fortunate as to the amount of damage.

J. S., aged 27, was struck in the left eye with a very small piece of steel. There was a good sized subconjunctival haemorrhage at the outer side and extending to the limbus. The cornea was clear, iris good color, media clear but the foreign body

was not seen. The X-Ray located a very minute metallic particle just back of the ciliary body to the outer side. The magnet applied to the cornea gave no results and an incision was made through the sclera, temporally and below with a cataract knife. The small spicule of steel was removed with the aid of a strabismus hook in the vitreous. Some vitreous was lost but the patient made a good recovery and saw 20-30.

A. M., aged 27, was struck in the right eye a few hours before. There was a small wound of entrance just above limbus and there were floating opacities in the vitreous. The lens however was clear. The X-Ray localized the foreign body just outside the sclera on the nasal side. The magnet was applied and another X-Ray showed the steel had moved and was definitely inside the globe. A scleral incision was made temporally and below and the steel was removed with the giant magnet. The eye made a good recovery and 20-30 vision was obtained in spite of the vitreous opacities.

Two cases were enucleated after successful magnet extractions.

J. F., aged 33 was struck in the right eye with a chip of steel from a riviting hammer. There was a wound of the conjunctiva and sclera on the nasal side of the globe. An effort was made to draw the steel back through the wound of entrance but it was rather large and entangled in the membranes of the eye. The scleral wound was enlarged and the membranes around the foreign body clipped and the steel extracted. The wound was closed with conjunctival sutures. Three weeks later the other eye showing signs of irritation, the injured eye was enucleated and the patient made a good recovery.

C. R., aged 27, was struck 10 days before in the left eye with a piece of steel. There was a corneal scar a little below center, adhesion of iris to lens behind this scar and an opacity of the lens at this point. The foreign body was of small size and localized near the optic disc in the vitreous. This was removed through the anterior chamber and a corneal section after. Haab's method. This was followed by a good deal of reaction in the eye in spite of various forms of treatment. There was some irritation in the good eye and the injured eye was removed about 4 months after the magnet operation.

One case of foreign body was not removed by the magnet because of its size. It was something over an inch long and according to the X-Ray, the posterior end was embedded in the bone at the back of the orbit and the anterior and was free in the vitreous. The eye was blind and the wound of entrance was through the ciliary body so an enucleation was done as soon as consent could be obtained.

There were three cases in which I was unable to remove the steel in spite of a careful X-Ray localization. One was lost sight of, another was infected and enucleated and the third was left in and giving no bad effects when last seen.

M. F., aged 22, was struck with a piece of steel three days before in Flint. Attempts at home failed to remove it. There was a central corneal scar, marked ciliary injection and a semi-opaque lens. The foreign body was small and located near the posterior pole of the eye. The Haab method was tried unsuccessfully. The sclera was then incised and a strabismus hook inserted but repeated efforts were fruitless. He refused enucleation and was lost sight of in a few days.

L. G., aged 20, was seen 2 days after the accident. He saw nearly 20-30 with the left or injured eye. The media were clear, no wound of entrance was seen and no foreign body could be made out. The X-Ray located a small foreign body just behind the ciliary body on the temporal side of the ball. A scleral incision was made and repeated attempts with the giant magnet and a strabismus hook inserted into the eye failed. The eye became infected and an enucleation advised. This was refused and I heard later the eye was enucleated by a confrere and found filled with pus.

The third unsuccessful case was seen some time after the accident. About a week before, he noticed failing vision in the right eye. The sight was 20-200 when seen and there was a small linear scar in the lower part of the cornea and well marked striae in the lens. Efforts to remove the steel were unsuccessful in spite of a corneal section. About two weeks later, the patient was anaesthetized and a linear extraction made and the magnet used again. Some vitreous escaped and the attempts were discontinued. About two and one-half months later, the eye was white, the pupil was displaced downward and the vision was 20-30 with a cataract glass.

As to how long a foreign body can remain in an eye without giving rise to any sympathetic trouble, one case is of very considerable interest.

A. C., aged 61, was referred to me with a penetrating wound of the right eye. The left eye was blind and shrunken from an accident 26 years before but was quiet and was not giving him any trouble. He was rayed to exclude a foreign body in the right eye and a large foreign body was discovered in his blind eye. It is now about three years more so he has had a retained metallic foreign body in his left eye for 29 years and no sign of sympathetic trouble in his other eye.

A penetrating wound of the globe may carry infectious material into the eye so as to preclude any hope of success with the giant magnet.

A. R., aged 41, was driving a hoop from a barrel two days before and was struck in the eye with a chip from the hoop. When seen, there was no perception of light in the eye, a wound in the ciliary body, marked chemosis and pus in the anterior chamber. The eye was removed less than 48 hours after the accident and a piece of steel found in the vitreous with a general infection of the eyeball.

In such a case, the removal of the steel would have given no help and would doubtless have been futile even if it could have been done immediately.

The faiure to extract the foreign body may be due to several causes. Some alloys now being used are non-magnetic or so feebly so as to make the electromagnet ineffectual. A faulty localization may show the foreign body just inside of the globe when it is really just outside of it. The particle may be small and so firmly embedded in the sclera or other tissue as to make the magnet impotent. The foreign body may be so large as to render its removal impossible without the destruction of the eyeball. It may be impossible to obtain any useful vision because of the extent

of the primary injury. An acute infection may preclude any sight. The injury to the lens may necessitate its removal. The injury to the ciliary body may leave a painful and dangerous eye. A chronic uveitis may in time destroy the vision or a detachment of the retina. The eyeball may be lost because of the extent of the original injury. A wound in the ciliary region may require an enucleation to safeguard the other eye. A painful blind and tender eye is often best treated by removal. On the other hand, an eye may retain a foreign body for years without setting up sympathetic inflamation.

Considering the intraocular foreign bodies reported here, we have three in the anterior chamber with the eyeball preserved and good vision. There were five embedded in the lens and the eyeballs of all of these were saved. Two of these cases only could be followed through with the removal and absorption of the lens and good vision. There were 23 cases of steel in the vitreous with only three known to have been enucleated, one from infection and two following the extraction of the steel and showing signs of sympathetic irritation. Three cases had their cataracts removed and good vision obtained. Without the removal of the lens, one case saw 20-50, two 20-30, one 20-20 and one 20-15. The ultimate result depends on many factors, such as the location of the wound, the size, shape and character of the foreign body and the amount of infection carried into the eye either by the foreign body or in the attempts to remove it. The smaller the foreign body, other things being equal, the less the damage to the eyeball. From an industrial point of view, I do not regard a cataractous eye even if the lens is removed as a very valuable one. One must allow a mm or two of error in X-Ray localization. Very small bodies can be localized and I doubt if a body so small as to be incapable of throwing a shadow which can be recognized, would do much damage to the eyeball. The shortest and easiest method of extraction is the one to be advocated. Foreign bodies which cannot be extracted do not necessarily mean sympathetic ophthalmia. The ultimate results of magnet extractions are sufficiently good to make this a great advance in caring for this class of cases.

Washington Arcade.

DISCUSSION

DON M. CAMPBELL, M. D., Detroit: We all enjoyed Dr. Connor's paper, presented in his usual interesting manner, and he is to be congratulated on the small number of eyes which had to be enucleated. Three out of 23 is small in the industries, and stands out in contrast with Bull's, where none retained useful vision. I believe there is an opportunity to improve our results in that way. Those who use this must be impressed with the use of the X-Ray for examination. The title is "The Giant Magnet in Extraction of Foreign Bodies in Wounded Eye Balls." The different types of magnets are important and all have their uses. The Hirshberg is useful in selected cases, because where the foreign body is in a situation easily reached, the facility of movement of the hand magnet is an improvement over the giant magnet which is inconvenient to operate and interfere with your vision. The recent Ring magnet offers the best improvement over that. In the employment of the Ring magnet we have a full view and do not have to handle a cumbersome apparatus, and examination is made under illumination with the field of vision clearly in view. In the diagnosis of the presence of a foreign body in the eye, the first thing of importance is the history of the case. It was found in the review of some 1,050 cases that the type of work the person is doing is of great importance in arriving at a determination as to whether a foreign body is in the eye ball. If working on a lathe or with a chisel or something of that sort, they are more apt to have a retained foreign body than in other types of labor. So first of all the type of work is suggestive as to whether there is a foreign body.

Another thing that impresses me is the amount of pain suffered. You see the eye that has been injured and in which there is a great amount of pain and the amount of trauma is suggestive that there may be a foreign body not yet found. An individual will come with a small wound of the cornea and no evidence further than that of injury to the eye, and will go home and suffer all night and there is more pain than accounted for by the evident injury, that is suggestive of a foreign body.

The use of the giant magnet is not confined to the removal of the foreign body. It is also a valuable means of diagnosis by the production of pain by exposure. This will often give evidence of a foreign body, and sometimes by the movement that can be felt an idea can be had as to the situation of the foreign body.

There is great desirability of early diagnosis, because it has been found that the earlier these cases are taken care of and the earlier the foreign body is removed the less the danger of sepsis and the less danger of visual loss. In this case not seen until the fourth day of injury, that is a great handicap to the proper management of the case and the prognosis as to what the result will be.

The X-Ray is of great value. There may be a margin of error as to the exact location sometimes. but I suppose that in the past 20 years that Dr. Hickey has localized for me and there have been several hundred cases of foreign bodies in the eye, I have yet to see many cases in which that diagnosis has not been accurate, both as to the presence and the locality. Considering all the years in which we have failed to locate with accuracy, it is of paramount importance. Another value of the X-Ray in connection with the giant magnet is that it is not only important for the localization but for the clearing up of the diagnosis. I have found 17% of these 1.051 cases must have an X-Ray before there was a positive diagnosis. Something like 200 we could not be certain whether a foreign body unless the X-Ray was used.

The removal of a foreign body from the cornea is often an extremely difficult proposition. It is even more technically difficult to remove a piece of metal imbedded under a little corneal flap than out of the anterior chamber and sometimes requires an extremely delicate manipulation to get it out without perforation of the cornea. These bodies which perforate the cornea and lodge within the lens substance it is frequently safe to leave and watch. It is not in contact with the

vascular structure of the eye and not likely to produce sepsis or iridocyclosis or sympathetic ophthalmia. But if not entirely perforating the anterior capsule, but perforating the lens and barely in the posterior chamber and partly free in the aqueous chamber and part of the body in the lens, that is a dangerous position and you will have to remove the foreign body immediately if you are to have a safe eye. If entirely within the lens it can be left with safety until the cataract matures, at which time it can be removed with a cataract operation. We had five cases in this series where the foreign body was imbedded in the lens and the results have been uniformly good.

In cases where a foreign body has been lodged in the eye it requires an early diagnosis. Even metal in the vitreous is a source of great danger to the eye, especially if there is any danger of sepsis having entered along with it.

There are two routes, the anterior and the posterior. The anterior is the one to choose if it can be done that way, for the reason that the eye is preserved in its original anatomical structure. With the magnet we attempt to draw it into the anterior chamber and then remove by a cornea-scleral puncture.

The danger of the posterior route is the great danger of a ciliary detachment and a blind eye. If you have to go through the posterior route I believe a great deal can be done by keeping the individual in a recumbent position for 10 days or two weeks. This is a difficult thing to do, but if it can be done it is of great importance.

Another thing in these cases of vitreous foreign bodies is what is going to happen subsequently. I have had very few failures in the removal of foreign bodies, and I think the most difficult place is a small piece of metal in the ciliary body. It is difficult to make a puncture that will reach the point of the foreign body and open the channel for its removal.

The work I do with the magnet is not new. The first case I have in our records of localization of the foreign body by the X-Ray and its removal by the giant magnet was about a year and a half after Roentgen gave his monograph on the X-Ray, and was, I think, in 1898. I think this is when my first case of localization of the foreign body by the X-Ray, removal with the giant magnet, and the retention of good vision was done.

DR. BEAGLE: There are just a few points as a suggestion. As regards foreign bodies in the eye, in my experience there are two chief causes. first, a workman hitting a piece of hardened steel with a hammer. I have not found the lathe often to cause this injury. In one case where a man got a piece of steel in the eye and an X-Ray was taken in an hour and in three hours after the injury the magnet was applied to the scleral wound. The piece of steel came promptly to the magnet tip, but gradually an infiltration of pus occurred and gradually approached a tip and a massive abscess could be seen, and it was necessary to enucleate the eye. I lost one case in my early practice where a foreign body had gone through the conjunctiva. The very small wound did not show, and there was a blood clot the same as would come from contusion. In this case there was a piece of steel in the vitreous.

I wish you would use every other means to diagnose, and I am sure the ophthalmoscope and careful inspection of the eye is of great value. A piece of steel was localized just outside the eye ball and with the ophthalmoscope I could see it in the eyeball.

Stellite is a metal on the market by the Hayse people of Kokomo and it is used as a cutting point on a lathe. Recently we physicians have had stellite instruments because they do not corrode. It is probable that the workman struck this with a harder piece. I was unable to get it out, and unable to prove it was stellite but the other day the man returned and said he believed the piece of metal was beginning to work out of his eye, and close to the wound I could see a slight gleaming mass, and it proved to be a very bright piece of metal such as stellite is. It was in the eye a year and a half. Most metal will have a covering by that time, but this did not. I put this piece of metal in a box and intended to have it identified, but unfortunately I lost it.

Regarding the use of magnets, I at first used a large one, but of late years have used a small one. This is very useful and one can handle it readily and put the tips rather easily through the wound in the sclera. The instrument gets hit frequently and one cannot be sure whether it has the same power as when new. I send it back and have it tested.

I feel that we ought to remove foreign bodies from inside the eye by gradual pulling to the outside of the wound. I feel we should use the large magnet; place it to the wound and try to draw the piece of steel there. The small magnet is very handy and I do not find the large magnet easy to operate when I wish to introduce a tip directly into the wound. One has to employ a piece of metal wire with the magnet and it is not easy. In the first case I listed I did not realize the steel was there. When I did have an X-Ray made the retina was detached. The magnet was applied to the front of the eyeball. The foreign body was disentangled and brought around and taken out through the wound in the cornea. Treated five or six weeks in the hospital on the back without result, flat on back. Two months later an operation was done with good results.

Another similar case where the detachment followed a piece of steel, which I removed through the sclera. I was unable to get the retina to return to its place.

DR. CHAS. BAKER: Mention has been made of the use of wire. It is probable the same thing which I have found feasible in a few cases. Sometimes the piece of steel is a splinter which enters the sclera and attaches so firmly that the magnet has no effect and in some cases you may see it standing on end in the vitreous. In such cases, by introducing the steel probe right down to the point of the foreign body and bringing my instrument directly in contact with the steel in that way we can get it out. Of course the magnetic force varies in proportion to the square of the distance, so that it is in the deeper parts less effective than when it can be applied directly. In that case the introduction of a steel probe will enable you to bring it out. In one case the magnet brought it to the front, and instead of being in the wound it came directly behind the iris and pulled the iris against the cornea. Then it was necessary to perform an operation to bring it out.

DR. BENEDICT of Detroit: One thing of importance is the use of a non-magnetic eye speculum and non-magnet fixation forceps. If I have to use a probe, by introducing it into the anterior chamber as you withdraw it very frequently the foreign body will come out with it.

DR. CONNOR, (closing discussion): I am much obliged to the gentlemen for their kind discussion. Dr. Campbell speaks of being able to see what you are doing. I usually, with the giant magnet, leave the magnet alone and move the patient, bringing the eye closer or further away to get more or less force.

Some patients complain severely of pain and others very little. They are mostly young, active working men and usually very tractable patients. The last one I remember was an ex-army boy who had considerable experience in work in France and thought he had had all the experience he wanted; when the magnet pulled on him he nearly fell on the floor. He thought it the worst thing he had ever had.

The question in regard to detachment of the retina is interesting, and I am waiting as the time goes on to see whether these patients do not come in later. By waiting a few years one can get a good check on whether or not detachment of the retina is a frequent sequela in this class of cases.

A PRELIMINARY STUDY OF THE OCULAR FINDINGS IN CASES OF ABNORMAL BASAL METABOLIC RATE.*

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For several years the ophthalmoscopic finding of a maroon spot edged with pigment in the macular region, or a vacuole in the crystalline lens, has aroused my desire to learn the cause. These have appeared to me to be the first visible changes toward loss of visual acuity or in cataract formation. Especially has it seemed imperative to learn the etiology of the initial lesion when the patient has been a young adult who has presented himself simply for refraction, thinking that a correction of lenses would give the desired acuity or relief from asthenopia.

Most of the cases for fundus examination have been referred to the ophthalmologic department simply for that examination. A few have come in of their own accord for refraction only. A fundus examination is made on each case of refraction. When these first changes in the media have been found, we have endeavored to stimulate the patient's interest and vigilant co-operation in endeavoring to learn the cause of the change in his blood chemistry. For some time these cases were referred to the diabetic clinic, since vacuoles and striae and spots in lenses were commonly found in the cases of hyperglycaemia. There were some remaining, however, in whom no cause could be found for the pathology in the eye. These striae are not to be confused with the dry "cracked" appearance of the cornea sometimes found after the use of cocaine for mydriasis.

The paper, by Dr. Percy Fridenberg, on the "Eye and the Endocrine System" read at the 1920 session of the American Ophthalmologic Society was inspirational to further work, and the exhaustive and valuable "Chairman's Address" on the "Eye and the Endocrine Organs," by Dr. Zentmayer, at the New York meeting of the American Medical Association in 1917, formed a solid basis upon which to pursue the study.

Dr. Paul Roth, Director of the Metabolism Laboratory at the Battle Creek Sanitarium and his assistant, Miss Anna Peterson, B. A., M. S., contributed the metabolic data given in the tables making up this present study.

*Read at 56th Annual Meeting, Bay City, May, 1921.

DEFINITION.

The basal metabolism is the minimum energy (or heat) production during the 24 hours. This is found when the body is at absolute muscular rest and in the post-absorptive state, that is, when the stimulating effect of food is absent (12 to 14 hours after a meal.) In other words, when we find the basal metabolism we find the speed at which the fire in the body is burning, at muscular rest and in the post-absorptive state. This actually represents the sum total of cellular activity without the "forced draft" of digestion, absorption or neuro-muscular consumption. Pathological variation in the basal metabolic rate indicates disturbance in the endocrine system, which may involve one or more of the ductless glands in various combinations.

To have the subject in proper condition for the test, he is taken in the morning before breakfast, and is made to lie quietly relaxed for a preliminary period of 20 minutes or more, before the determination is made. The pulse is counted occasionally to see when it reaches the minimum rate. The body temperature, blood pressure and respiration rate are also taken.

At the Sanitarium, both the Benedict and the so-called Tissot methods are used in the determination of basal metabolism. Each subject is tested by the two methods on different days.

THE BENEDICT METHOD.

1. The subject breathes from the apparatus (in which the CO_2 is removed by a sodalime absorber) and the volume of the oxygen absorbed in a given time is noted.

2. The so-called Tissot or the respiratory valve method. The subject breathes outdoor air and the expired air is collected over a given period of time, measured and analyzed for CO_2 and oxygen. In either method the rate is obtained at which oxygen is being used in the body.

From this is calculated the heat value in calories, which is compared with that of the normal average person. It varies according to height, weight, age and sex, and the calculations are carried out on this basis. The results are reported as percentages of the normal average, above or below (plus or minus) zero, which represents the normal average.

The normal limits of the basal metabolic rate have been generally recognized to be between plus 10 and minus 10, but careful and repeated clinical observations strongly

indicate that these normal limits may be still further restricted, especially, with regard to the minus quantity. I have observed that many of the individuals with a metabolism lower than—5 have been decidedly benefited clinically by minute doses of some hormone. This would indicate that —5 is tending to the extreme of the lower limit.

In the 585 fundus examinations which have been made between Jan. 1 and May 15 1921, retrogressive changes in the crystalline lenses have been noted in 289. These are classified as striae, fine spokes, heavy or broad spokes, irregular opacities, homogeneous milkiness, specks, vacuoles. One expects to find any or all of the above named changes in the lenses with other characteristic ones in the other tissues of the eye in studying evidently sick or "sodden" patients. On the contrary, it is startling to find in an otherwise perfect eye, and in a young, robust-looking individual, on the background of a soft red reflex, a clear cut, round, full vacuole. The first question asked after such an observation is: "How have you been feeling lately?" Invariably the answer is, "I have not been well since I had the influenza," or "I had a nervous breakdown a few months ago and can't get hold of myself," or "I am well but greatly fatigued."

Fatigue has been the most constant symptom that has accompanied the finding of striae or vacuoles in the lenses.

The metabolism laboratory furnished a list of about 400 patients who during the same period has been found to have abnormal basal metabolic rates. From this list were sought out in the ophthalmologic records all who had had fundus examinations. This established the final list of 78 cases which are here presented. These 78 patients of ages ranging from 12 to 64 had had both a pathological metabolic rate and a fundus examination. In our further study it is proposed to co-ordinate the metabolism laboratory and the ophthalmologic department so that the abnormal basal metabolism cases may be referred for ophthalmologic examinations and the abnormal cases first seen ophthalmologically may be referred for metabolic study. It has been extremely interesting to note with what consistency a careful ophthalmoscopic examination has made one able to "guess" the cases of disordered basal metabolism.

In this list are found:

7 cases with clear media, (four of these were cases of minus metabolism with endemic encephalitis. It is possible that the metabolic depression was acute, and had been of short duration.)
4 Vitreous opacities.
2 Remnants of pupillary membranes.
2 Ulcers of the cornea from smallpox pustules.
22 Specks or spokes.
22 Vacuoles.
20 both vacuoles and specks or spokes.
64 out of 78 or 82% had lens opacities, either vacuoles or striae or spokes.
61 were minus rates and 17 were plus.

Every case, excepting two, that has been sent to the metabolism laboratory because vacuoles were found, proved to have an abnormal metabolism.

It has not been the purpose in this study to reiterate the signs and symptoms of classical hyperthyroidism, nor to discuss the well known ocular findings in many of the other familiar advanced endocrine diseases with which the writers of our text-books have been conversant for decades. The lesions of basic importance are the first fine specks or spokes or vacuoles in the lens, the first depigmented area near the fovea or the first vitreous opacities; the very beginning of visible nutritional disorders, and endocrine disturbances. They warn us to seek the cause and to make a change in life's regime; to regain an equilibrium of body chemistry and possibly thus clear up the crystalline media which have revealed the incipient pathology. Are these analogous to the functional increase in blood pressure that preceeds arterial changes? Can we compare them to the Bergell test as related to impending glycosuria?

In addition to the finding of vacuoles or striae in lenses, one learns quickly to see endocrine stigmata in the skin and its appendages, in general structural abnormalities, in the color of the sclera, in the symptoms of easy fatiguability, headaches, vasomotor and neurologic disturbances, and in gonadal and secondary sex changes—all of which must be taken into account as a part of the pictures leading to correct diagnosis.

In the list of 78 cases, four have been patients who came in for refraction only, complaining of asthenopia, general lassitude and loss of appetite, and have remarked the third day after mydriasis (which consists of three discs, each containing one-fiftieth of a grain of homatropine and cocaine) that the eye symptoms were gone. These four cases were sent to the metabolism laboratory and were found to be hypometabolism cases. The minute doses of homatropine seemed to relieve for the time being the asthenopic symptoms referable to the eyes.

Three young adults with anisocoria were psychically optimistic, but physically fa-

tigued. Their basal metabolic test showed them also to have a hypometabolic rate. They were referred to the X-ray and chest departments on account of the anisocoria and were found to have active tuberculosis. Just what endocrine disturbance was present in these cases does not appear as yet.

In a few cases of passive congestion of the conjunctiva, adrenalin in very dilute wash, was very helpful. (One minim of 1-1000 adrenalin to 1 dram of boric acid solution). It was interesting to note that these were cases of low blood pressure, although well nourished and vigorous looking individuals. In the hypometabolic cases where the conjunctival adrenalin test was made there was a dilatation of the pupil of the eye tested.

Only one patient with vacuoles in the lens and the facies of hypometabolism returned from the laboratory test with a hypermetabolism rate. On further inquiry, he disclosed the fact that he had been taking iodine for many months. Might this not be a case of iodine thyroiditis?

Case L. C., is one of an obstinate corneal ulcer following smallpox in which there was a persistent uveitis, with secondary glaucoma menacing for eight months. From the first, routine local and constitutional treatments were given but were of small value. A hypodermic injection of tincture of iodine in almond oil in dosage recommended by Richard Kerby in an article published in the British Journal of Ophthalmology, 3448, Oct. 1, 1919, gave almost immediate relief. The photophobia which has been intense for many months disappeared in less than a week and the fasciculus of vessels crossing the limbus to the ever newly forming ulcer, melted away. The leucocyte count was taken after the fourth injection, and was increased 40% over normal. Because of the response to iodine, the patient was sent for a basal metabolism test. It was found to be —15. Thyroid extract was given at once and her general health improved greatly. After a few weeks of thyroid therapy, she complained of a rapid heart. The thyroid extract was discontinued. Her blood pressure was 110 at that time. It was then that the conjunctival adrenalin test was made and found to be positive, i. e., after three drops of adrenalin, 1.1000, in the conjunctival sac, the blanching persisted an hour and five minutes. A further study of this case is being made. In normal cases the effect of adrenalin passes in from 10 to 35 minutes.

At this point I would like to call attention to the pertinent question asked by Dr. Fridenberg in his essay on the "Eye and the Endocrine Organs." "Is the ciliary body one of the endocrine organs?"

Excerpts from a paper on "Crystalline Deposits," by F. Park Lewis, Buffalo, N. Y., in Jour. A. M. A. July 7, 1917, are extremely interesting:

"In every case of disease there must be a wide range of gradations, from the initial disturbance of nutrition, through the breaking down of structures, up to the final dissolution of the material into the elements of which it is composed. The end results are visible to the naked eye.

"Every living cell is a mass of protoplasm enclosed in a cell wall. It has in its substance proteins, lipoids and an enzyme. It is in fact a colloid in which crystalloid substances are readily soluble. Under the influence of chemical action, of heat, of electricity, of light or of radio active forces, the cell is split up into the component carbohydrates, the molecules forming new groupings through a long series, until the simpler forms are finally reached.

"Chemical relations of the most different kinds are simultaneously possible in the homogeneous ground substance of the cell."

"In order that we may visualize these cellular activities which are constantly taking place, we must think in terms of cell structure continuously related. With such colloids as the cornea, the membrane of Descemet, the lens capsule, the lens cortex, the vitreous, the hyaline membrane, the nerve cells of the retina and the membrane of Bruch, in contact with such colloids as the lymph and the blood plasma, with the aqueous filled with crystalloids in solution, with each cell penetrable by the toxins given off from bacteria or from chemical changes, we may begin to realize the enormous possibilities that are opened up to us, not only concerning the physiology and the pathology of the eye, but as to the therapy as well."

"The same laws govern the cell contents and its membrane as to osmosis and surface pressure as apply to other animal membranes, and while it is not yet proven, it is not at all improbable that the edema within the eye, whether it takes the form of an acute or a chronic, a simple or a fulminating glaucoma, may ultimately be found to be due to the swelling within the vitreous cells of soluble toxines, equally the atrophic changes in the lens fibres, like the fibrous and subsequently fatty changes in xanthelasma, or in the arcus senilis, are evidences of the presence of soluble toxins, which have disturbed the normal functioning of local cells."

One of the pharmacists at the institution, a man of good physique and who appears in good health, cut his hand with a piece of glass. The wound was very slow in healing. While this wound was still bandaged he had an attack of iritis in the left eye, and came to the ophthalmologic department. While the pupil was dilated with atropin, the fundus was examined and found to be normal except for a vacuole in the lens in the center of the field. He was sent to the metabolism laboratory and at two different times was found to have a minus 19 and minus 21 basal metabolic rate.

A daughter of a physician, a tall, thin, nervous, hyperthyrodism case was first diagnosed as such when she came in for refraction. She was taken to Florida for the winter months. While there she contracted typhoid, having a very severe attack. On her return this spring she was slower, calm, optimistic, happy, with hypometabolic rate.

The question may arise, do the vacuoles and striae and specks disappear after endocrine therapy. There has not been opportunity to follow any of the patients of this list for a long enough observation pe-

riod, but our records do show a few that were noted in earlier study within the past two years. Of these, three cases lost their vacuoles: one, a patient who had glycosuria early in 1920 and who is now sugar free; another, who has recovered from a chronic colitis; and the third, a hypometabolism case with tumor of the hypophysis in February 1920 has now, after the removal of the tumor at that time, and the regaining of his general health, a normal metabolic rate. He has had occasional recurrence of some of the same first symptoms as before. The field of vision is not as large as it was the first month after the operation. He has had a few peculiar attacks of partial blindness in the left eye which lasted a short time and disappeared. He is fatigued when climbing stairs. He is less freckled than formerly. The conjunctival adrenalin test is positive, the time of blanching being one hour and 20 minutes. The fundus examination now shows normal papillae, whereas before the operation the papillae showed definite evidence of the pressure of the tumor. Another interesting finding at this time is the pigment migration in the periphery of the retinae. This was not present a year ago. In this case the question is whether there is recurrence of the adenoma or simply endocrine imbalance of metabolism. It would seem that the latter is the case. This patient is to be kept under further observation.

It is encouraging to ophthalmologists to realize that such an intractable disease as retinitis pigmentosa can be treated beneficially by mixture of thyroid, adrenal and sodium cacodylate, as reported by S. B. Muncaster in Ophth. Record 21 p. 343, 1912, and that in keratoconus by the use of thymus and thyroids, sometimes adrenals, pancreas or gonads, positive results were obtained. N. Y. State Med. Jr. 1917-17.

An outstanding fact is that these investigations have shown that endocrine disturbances are far more numerous than has been suspected.

More might be said of the general findings and of the questions that arise in the study of these cases. More specific instances might be selected from the list of palpable coincidence of ocular and endocrine disturbance. I feel however that the study has just begun and earnestly hope that by multiplication of observers and cases and by coordination of ophthalmologist, internist and laboratory expert, a basis may be laid for the early diagnosis and a therapeutic guide for this most numerous class of cases.

DISCUSSION

DR. BERNSTEIN: I do not wish to throw cold water on such excellent work as the Doctor has done, but it seems to me rather premature to say much about basal metabolism as a means of diagnosis of conditions in the body. With regard to spicula in the lens, that has been gone into years ago by Hess. In the last few years one of my colleagues also thought he had something new about this which was wonderful. I am glad to say he has come to the conclusion it was due to the homatropine he had used, and on discontinuing the homatropine this disappeared. In many of these cases careful refraction will cause these reflex neurotic manifestations to disappear.

DR. BAKER: I do not feel competent to discuss this from the standpoint of experience, but I think this is something along the right track. I have been looking for the cause of cataract. From what we are discovering in connection with the subject of metabolism and the effect of the glands on the tissue changes of the body, it looks like a very promising field for us from which we may have some results in the future in regard to incipient cataract and prevent it from developing. If we can do this while the eye is still of use I think it will be the greatest advance we can look for in the future of ophthalmology.

DR. STEGMAN, (closing discussion): In the old text books hyperthyroidism is given as one of the etiologic factors of cataract. I have seen nothing, however in these texts about "hypo" conditions as a factor.

Our figures show that of the 78 cases with early lens changes, only 17 had plus metabolism rates, while the rather surprising number of 61 had minus metabolism rates. The significance of this ratio must appeal to the ophthalmologist who does not have ready access to a laboratory where his cases may have the basal metabolism test. The chances are more than three to one that the detection of the early lens changes indicated are due to a hypometabolic rate. A trial of thyroid or iodine under careful clinical observation will soon convince the observer of its value ejucundibus. The advocacy of this rather empiric trial of endocrine therapy is justified only as a means of smitulating greater interest in this important subject, and must be attempted only under careful clinical supervision.

THE SPHENOID SINUS.*

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Reports and discussions of diseases of the sphenoid sinus have been few and brief in the past. It requires but a cursory examination of the literature and surgical development of rhinology during the past 25 years, to observe a parallel between increased interest in sphenoid disease and the increase in radical surgery. Whatever opinion we may hold in regard to the so-called radical measures increasingly employed, it is certain that such procedures have gradually lifted the veil from this remotely situated structure. The anatomists frightened men away from it up to the time of Killian, Hajek, Halle and others. Only those men of this generation who have especially in-

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terested themselves in the anatomy of the sinus labyrinth and its frequent variations —and have made repeated dissections of the parts, thus obtaining thorough mental pictures of their common and uncommon relationships, are investigating its condition as a diagnostic routine and adequately attacking it surgically when found diseased. It is not uncommon to hear prominent rhinologists admitting that they never attempt to enter this sinus because they consider it is not frequently diseased and because it is so dangerously situated. This only indicates that they have not interested themselves in diseases of accessory sinuses in general but only in those comparatively easy of access. After 12 years' experience and some success in an effort to relieve baffling head symptoms, the writer is convinced that sphenoid complications are not only fairly common but quite as important as they are obscure, often causing much pain and disability which may be relieved with no danger by one who has acquainted himself with the anatomy and pathology of the region and that the surgery is less radical than is often supposed.

All of us are familiar with the normal anatomy of the sphenoid sinus. There are, of course, many noteworthy variation of which a full knowledge is necessary in order to do safely the painstaking work which this surgery demands. (These departures from the normal are ably presented in the following texts: Schaeffer—"The Nose and Olfactory Organs;" Sluder, "Headaches and Eye Disorders of Nasal Origin," and the last edition of Gray's Anatomy.) This sinus is in reality easy of access in the vast majority of cases. All that is necessary is to shrink the nasal mucosa with cocain and adrenalin, and if it is not possible to pass a straight probe into the ostium following a line passing over the anterior nasal spine and skirting a point on the lower border of the middle turbinate, dividing the posterior from the middle third approximately, one may bend the probe in such a manner that it will pass around the posterior end of the middle turbinate and enter the ostium at a right angle to the face of the sphenoid.

Frequently it will be found in the course of this examination that by the simple passing of the probe cases experience immediate relief from headache of a debilitating character, notably those, for instance, where the oculist has been unable to relieve by a careful adjustment of lenses. Many of these sudden and complete reliefs are brought about without any cocainization preliminary to the passage of the probe into the sinus, thus ruling out any possible influence of the anaesthetic in the prompt relief from pain. Many times the same relief will occur in cases where the nose does not show presence of pus in the middle or superior meatus, either by anterior or posterior rhinoscopy.

Some years ago the use of the small silver probe in routine examination was determined upon by the writer and his not infrequent experience in giving patients relief from headache from which they had heretofore discovered no relief has fully justified the measure. After this the writer had numerous experiences of suddenly relieving incapacitating headaches by the simple passage of a probe through the sphenoidal ostium. And before Sluders' remarkable book describing vacuum sinus headache he was unable to account with previous authority for this experience in the instances where pus was not found in the region of the superior meatus. Since this able authority has been added to his personal experience the writer of this paper has no doubt that in many of these cases relief was due simply to the sudden admission of air into the sinus, relieving the partial vacuum. Thus the absence of pus in the superior meatus should not deter us from making an examination. It is a dangerous dictum that all sphenoidal sinus suppuration is accompanied by ethmoidal suppuration and vice versa. Better cultivate the attitude that each and every sinus is not only an anatomical entity but may be a pathological entity as well. The latter conception will make for thoroughness, whereas the former breeds laxity.

A compilation of accurate statistics from case records has been deemed unnecessary for this paper but a complete record evidence is possessed by the writer and is the basis of his appeal for the examination of the sphenoid in all cases of recurrent headaches regardless of type. Location of pain in sphenoid affections is most variable in spite of the so-called characteristic headache which has been described by others. Patients sometimes complain of temporal pain alone, often bi-temporal, also a retro-orbital pressure pain accompanied by a feeling of stiffness or lameness upon moving the eye sometimes pain is parietal, occipital and occasionally frontal, or vertical, parietal and occipital. While some complain of headache in all these regions at the same time, the same individual may relate to you that it is sometimes in only one of these locations or will describe various combinations.

The type of the pain may vary from a slight discomfort to the most profound, binding and bursting ache, actually prostrating the patient. They occasionally complain of nausea, vomiting and vertigo. Without doubt routine investigation of the sphenoid sinuses would noticeably reduce the number of so-called cases of migraine.

Surgical relief of these conditions can be described very briefly. In the cases where simple probing of the sinus does not suffice, it may be found necessary, due to anatomical considerations, to push aside or crush the middle turbinate, or remove the posterior portion of it in order to gain free access to the ostium. A probe then may be inserted and the anterio-posterior diameter ascertained so that one may judge the degree of care necessary in inserting tip of forceps. Next insert the probe ended tip of the punch forceps through the ostium, the ordinary type of sphenoid punch forceps—cutting on the pull—being the instrument of choice. Care is taken to enlarge the ostium downward and toward median line rather than externally, thus avoiding the danger of running into atypically placed vessels which may cause annoying hemorrhage, invasion of interior of skull or injury to structures essential to vision. As a rule packing is not employed, and has seldom been found necessary to control late primary or secondary bleeding.

The after care consists of inspection daily for a short time, possibly irrigation with normal saline solution, and prevention of the development of granulations around the enlarged ostium, when they appear, by means of the ordinary chemical caustics.

This article has purposely not dealt with the inflammatory, degenerative, hyperplastic, and neoplastic diseases of which this sinus is occasionally the site. In the main the writer has had but one purpose in view and that was the encouragement of the routine examination of this too frequently neglected, bony walled mucous membrane lined pneumatic structure.

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INDICATIONS AND CONTRAINDICATIONS FOR THE USE OF PITUITRIN IN OBSTETRICS.*

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In the Department of Obstetrics and Gynecology at the University Hospital pituitary extract has been used since the year 1911 without any very serious accidents directly attributable to the drug. It has been administered for the induction of labor, during labor and also during the puerperium. In 1914, Seeley analyzed forty cases from that clinic and although much has since been learned about this drug, the conclusions which he reached are for the most part still accepted as correct. In 150 additional cases an attempt has been made to elaborate on and to extend the use of this drug.

The preparation used during the majority of our experiments is that of pituitrin, manufactured by Parke, Davis and Company of Detroit. Occasionally it has been necessary to substitute "pituitol" a Hollister laboratory preparation. The action of the two preparations in as far as our observations have advanced has been identical. Surgical pituitrin also marketed by Parke, Davis and Company has been used, but its potency is approximately twice that of the obstetrical preparation and therefore when used not more than one-half the customary dose has been administered.

The dosage has varied according to the indication for its use from three minims to one cubic centimeter. Our maximum factional dosage has never been more than three cubic centimeters in 24 hours. Watson, in a recent paper, has advocated much greater dosage, having administered in cases of induction of labor as much as eight to ten and one-half cubic centimeters in one-half cubic centimeters doses at intervals of one-half hour, while Bandler has given 12 to 14 cubic centimeters in 24 hours without disastrous results. In every case the drug has been administered intramuscularly.

INDUCTION OF LABOR.

Forty-five individual cases ranging from the eighth month of pregnancy to three

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weeks post-maturity were subjected to induction of labor. Thirty-one, or, sixty-nine per cent responded to one of the methods mentioned below. Of these 31 cases in 26 or 65 per cent, labor was brought on by means of a combination of castor oil, quinine and pituitrin. Five were induced by the insertion of the Voorhees bag and repeated doses of pituitrin. Fourteen, or 35 per cent, did not respond sufficiently to the combination of castor oil, quinine and pituitrin to bring on labor.

The method, which in our hands proved most successful, was the administration by mouth of one to two ounces of oleum ricini, followed two hours later by 10 grains of quinine sulphate. The quinine was repeated and at the time of the last dose of quinine five minims of pituitrin were injected intramuscularly, followed two hours later by a second and sometimes a third dose of pituitary extract. It is most important that the pituitrin be repeatedly administered in order to secure a completion of the onset of the labor. This combination of drugs brings about a maximum oxytocic action on the uterus.

As the gravida reaches maturity this method of induction of labor follows a gradual rising curve so that at maturity it reaches its apex. At eight months two attempts were unsuccessful. At eight and one-half months one attempt was unsuccessful, at nine and one-quarter months one attempt was successful while four were unsuccessful, at nine and one-half months two were successful while nine were unsuccessful, at nine and three-quarters months one was successful and six were unsuccessful, at ten months nineteen were successful while six were unsuccessful, at ten and one-quarter months one was successful, at ten and one-half months five were successful and at eleven months one was successful. Judging from these results as well as from those of Pauliot and others it is quite apparent that the irritability of the uterus and its responses to oxytocic drugs increases as term is approached. Furthermore it can be concluded that for bringing on therapeutic abortion or premature labor pituitary extract alone or in combination with other drugs is practically useless.

Following the introduction of Voorhees bags for the induction of labor one can administer small doses of pituitrin and thereby markedly shorten the onset of labor pains. Likewise in cases of premature rupture of the membranes the drug will stimulate the uterus to activity when otherwise it might lie dormant for hours and even days. It is also of value in differentiating false from true labor pains. A few minims of the drug will augment true pains so that there is no further doubt about the status of the uterine irritability.

FIRST STAGE OF LABOR.

Our experience with this drug during the first stage of labor has been a very limited one. It should never be given to hasten a normal first stage. Except for those rare cases of primary uterine inertia its use is most dangerous. Mundell has collected from the literature about four thousand cases in which pituitrin was used. He found many cases of ruptured uterus and fetal death as well as an occasional case of maternal death. Tetanus uteri, premature separation of the placenta and post partum hemorrhage were even more common.

Primary uterine inertia can and should be recognized before labor. The uterus is atonic and flabby and indifferent to stimulation; the blood pressure is generally low and the calcium index is subnormal. Bell advises that such a state be treated by oral administration of calcium salts and the dried extract of the posterior lobe (gr. V. t. i. d.) or the whole gland (gr. XX t. i. d.) When the complication is not diagnosed until after the onset of labor, very small doses of pituitrin may be injected in not more than three minims doses and not repeated more than once.

SECOND STAGE OF LABOR.

Madill and Allen, Jaeger, McNeile, Maxwell and Seeley have proven both experimentally as well as clinically that rhythmical and forcible uterine contractions have been re-established almost immediately following the intramuscular injection of pituitary extract. Exceptionally contractions are not re-established. In such cases delivery must be completed by instrumental means. There is no doubt that the judicious use of pituitary extract has saved many mothers hours of exhaustion and waiting and the accoucher much worry and loss of sleep. But one cannot emphasize too frequently the prerequisites for the use of pituitrin. No man should dare to give pituitary extract until the head has entered the pelvis, the cervix has been fully dilated or is dilatable and all other obstructions for delivery have been removed.

Anyone associated with a large obstetrical clinic in a metropolis or with a gynecological clinic has seen the early and late effects of pituitary extract in the damage it

indirectly causes to the maternal soft parts. Such conditions as extensive lacerations of the cervix with and without hemorrhage, second and third degree lacerations of the perineum, rolling out and evulsion of the anterior vaginal wall with stretching and tearing of the ligaments of the bladder are all more common when the second stage has been precipitated by the oxytocic. Therefore it is advisable that before the administration of the drug all preparations be made for delivery and an anesthetist be available. Then if the uterine contractions become tempestuous they can be controlled by deep anesthesia and the advance of the head retarded by the accoucheur. Further a rigid or high perineum can then be episiotomized or manually dilated.

It has been suggested to the writer, after having observed Doctor Irving W. Potter "iron out" a perineum for selective version and extraction that his technic can be applied to the vulval outlet of primiparae. After completion of the first stage of labor and with the patient fully anesthetized the perineum, with the aid of green soap, can be completely dilated. Then the patient can be kept in the obstetrical degree of anesthesia and the labor completed by the administration of 0.5 cubic centimeters of pituitrin. This procedure has been carried out in a limited number of cases but cannot as yet be recommended for adoption.

Bell has advocated the combining of pituitrin with scopolamine-pantopon anesthesia (twilight sleep) for shortening the period of labor. In our hands twilight sleep has not been a success but in those cases with which we have had experience the oxytocic is of value in completing the prolonged labor. Stein's results in combining nitrous oxide and pituitrin have been excellent. We are inclined to concur with him in regard to this technic. Bandler has advantageously used chloroform and pituitrin for the same purpose.

Any practitioner who has used pituitary extract in either the first or second stage of labor must have at some time in his career found it necessary, because of an abnormal fetal heart to complete a delivery with forceps. Frequently the infant is in a state of livid or pallid asphyxia. Occasionally it is stillborn and sometimes it does not show symptoms until later in life. The pituitrin circulating in the maternal blood causes rapid recurrences and more forceful uterine contractions, shutting off the placental circulation and also directly compressing the fetus. Kerley, Holt, Heard, Norris and Chapin and Pisch have called our attention to the late effects of pituitary extract on infants. They have found in many of these cases at autopsy meningeal and cerebral hemorrhages which in the living child lead to paralysis, epilepsy and idiocy. In view of these findings and the frequent disastrous effects to the mother should we not as medical men be most conservative in the use of this popular drug?

THIRD STAGE OF LABOR.

In one hundred and thirty-five consecutive cases, one cubic centimeter of pituitrin has been injected intramuscularly immediately following the completion of the second stage of labor. Our results in these cases have been so uniform and offer such brilliant hopes for the future that we feel justified in reporting them at the present time. The amount of blood lost during the third stage, the length of the third stage, the method of expression and the mechanism of separation of the placenta and the frequency of postpartum hemorrhage have been recorded and analyzed.

The loss of blood was accurately measured by placing a flat douche pan under the patient as soon as the baby was delivered. The hemorrhage occurring before the separation of the placenta, at the time of separation and that after the separation was used in the estimation. The loss averaged 255 cubic centimeters for the normal cases. The length of the third stage averaged 12 1-10 minutes. The separation of the placentae in 69 per cent of the cases was by the Schultze mechanism, the fetal surface appearing first at the outlet. Two adherent placentae were manually removed. The delivery of the placenta was completed in 94 per cent of the cases by modified Crede expression. There were two expressions by true Crede and two by the Michael Reese method.

When one compares these results with controls and also with the text-book picture of the third stage of labor, one observes that the third stage of labor has been materially influenced by the pituitrin. The loss of blood was reduced from 351 cubic centimeters in the controls and 300 to 500 cubic centimeters (Williams text-book) to 255 cubic centimeters in our pituitrin cases. The third stage was shortened from 24 minutes in the controls and 20 to 30 minutes (De Lee and Williams text-book) to 12 1-10 minutes. The methods of separation and expression were kept in the same ratio one to another as those of the controls as well as those of the text books. The frequency of

adherent placentae and complications might appear unusually high but it must be remembered that approximately 20 per cent of our pregnancies are complicated by lues.

All obstetricians will grant that one of the most imperative points in conducting a labor is the conservation of blood and that it is considered the one greatest asset to the patient during her future puerperium. Therefore if pituitrin will conserve this valuable asset then we believe that it should be used. There is no doubt in the minds of those who have used pituitrin for facilitating the completion of the third stage of labor that it gives to the accoucheur a feeling of safey in regard to the loss of blood and immediate expulsion of the placenta. He knows that the uterus will remain contracted and that in case of necessity the uterine musculature has already been sensitized to oxytocics such as ergone.

Hour glass contractions have been reported following the administration of pituitary extract during the third stage of labor. Such an accident has never happened to us. It is possible but not probable that in partially adherent placentae especially in premature labors that this complication might occur. We believe, however, that the intermittent retraction and contraction of the uterus would have a tendency to free such placentae.

POSTPARTUM HEMORRHAGE.

Pituitary extract as an etiologic factor in the causation of postpartum hemorrhage was not in our hands an important one. When the drug brings on tetanic contractions of the uterus followed by atony then of course it can be blamed for the pathology. Fortunately, because pituitrin is only rarely used during the first and second stages this has never been our experience.

For the treatment of postpartum hemorrhage the usual method of intramuscular injection of one cubic centimeter of the solution was used. De Lee suggests in such cases that the drug be injected directly through the abdominal wall into the uterine muscle. Naturally the hemostatic effect is much more rapid. Its action on the uterine muscle is not of as long a duration as ergone preparations but the length of time necessary for it to circulate in the arterial system to stimulate the uterus to contract is three to five minutes while intramuscular injections of ergot take some 15 to 20 minutes.

CESAREAN SECTION.

Pituitary extract has been used with most beneficial results to control hemorrhage during Cesarean section. Formerly pituitrin was administered by the usual method of intramuscular injection at the time of, or immediately after the removal of the placenta. More recently operators have after the removal of the placenta infiltrated the uterine incision with one to two cubic centimeters of the extract. When used in his manner the closure of the uterine wound is greatly facilitated. Bleeding from the large sinuses is reduced to a minimum. An excellent procedure recommended by many Cesarean sectionists is to supplement the action of pituitrin by injecting intramuscularly at the beginning of the operation one of the sterile preparations of ergot. Then one secures besides the immediate effect of the pituitrin the lasting and tetanic action of the ergot.

During the postoperative period of Cesarean section cases and also the puerperium of any case complicated by subinvolution, acute dilatation of the stomach, intestinal paresis and atony of the bladder, repeated small doses of either the obstetrical or surgical preparation of pituitary extract may be used most efficaciously.

Finally, there are certain well defined contraindications to the use of pituitrin. It is realized that the majority of the medical profession practising obstetrics are conversant with these contraindications but even so because of the many disasters which have in the past befallen mothers and infants, it again seems necessary to mention them. They may be briefly outlined under the following headings:

CONTRAINDICATIONS.

1. When labor is progressing normally pituitrin has no place during the first and second stages.

2. It should never be given unless the position and presentation of the fetus are known. In malpositions such as oblique and transverse positions, persistent mentum and occiput posterior and marked deflexion attitudes, the uterus may be ruptured or the fetus suffocated by the violent contractions induced by the oxytocic.

3. When there is undue disproportion between the fetal passenger and the maternal passage pituitrin should not be given. It is best not to make use of the oxytocic until the head is engaged, the membranes ruptured, and the cervix fully dilated or dilatable and all preparations made for a rapid delivery. In elderly primiparae the drug must be used with caution.

4. Uteri with scars or with any inherent weakness should not be subjected to the use of pituitrin.

5. Feti in utero which show by a change in the fetal heart rate the effects of hypercarbonization due to a prolonged labor or premature separation of the placenta should not be further compressed and injured by the continuous and tetanic uterine contractions so frequent following the administration of the extract.

6. If the mother is the subject of disease of the heart, arteries or kidneys, such as are found in arteriosclerosis and eclampsia the preparation is dangerous and may be fatal.

CONCLUSIONS.

1. At maturity labor can be induced in about 65 per cent of the cases by oral administration of castor oil, quinine and repeated small intramuscular injections of pituitary extract.

2. For the treatment of primary inertia the extract should be used most cautiously and only in very small doses.

3. Judiciously employed pituitary extract can be used to great advantage in cases of secondary inertia.

4. The third stage of labor can be most favorably influenced by the intramuscular injection of one cubic centimeter of the extract.

5. Pituitary extract should be included in the obstetricians armamentarium for combating postpartum hemorrhage.

6. The extract facilitates the closure of the uterine wound in cases of Cesarean section.

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DISCUSSION

DR. L. W. HAYNES, Detroit: I believe Dr. Cron's paper is admirable. I think those of us who are doing obstetrics have more and more regard for this drug every year. I began to use it a good many years ago, and at that time never gave less than 1 c. c. at a dose. From the beginning we were very careful to use it at the proper time. I never used it in the first stage and I think each year we realize more and more that it should not be used in that stage because of the unfortunate accidents read about in the literature. As I say, I first used 1 c. c. and finally, as we had reports of bad results, I cut down the dose to one-half that amount, and within the last year have used 2 to 4 minims at a dose, repeating it at 20 minutes intervals. I agree with Dr. Cron about using it at the third stage, and think it is good to use it for quick action and then follow it up with ergot.

I had a case just a few weeks ago that I think will be of interest to you. It was the first case I have had where I noticed any bad results. The patient was a multipara with a fairly easy history of previous pregnancies. She had been in labor for eight or ten hours, the contractions were pretty weak, the head was high up and by rectal examination I could not determine the exact position. I decided to give a small dose of pituitrin to help in determining the position. I gave her four minims and within a few minutes she complained of being very ill. Within a few seconds more she became unconscious, the pupils dilated and she had slight muscular twitchings. I took her to the hospital and under slight anesthesia delivered the baby. The woman was unconscious for two hours altogether. She had had no complications, the urine was normal at the time of delivery, so this was a typical anaphylactic shock caused by four minims of the drug.

DR. ELISHA W. CASTER, Highland Park: I would like to ask Dr. Cron what he considers the proper dose to be, and what his observation has been as to the length of the effect produced by the drug.

DR. REUBEN PETERSON, Ann Arbor: I have nothing to criticize in the paper itself. All I can say is that such papers as these lead us to be more careful with the use of this drug. Any man who has injected this drug into the uterus after the removal of the fetus by abdominal cesarean section has seen what a powerful action it has upon the uterus. We must be careful and follow out with the greatest care the contraindications as Dr. Cron has outlined them.

Dr. Cron at luncheon was telling me about a case he had at the time I left Ann Arbor on Tuesday. This is the kind of a case where in desperation one is inclined to give pituitrin. A woman with a borderline pelvis had been in labor for 36 or more hours. The fetal heart was in good shape, or was fair, and after all this time the membranes ruptured and he had to do a version. After preliminary ironing out of the perineum by the Potter method he had great difficulty in delivering the after-coming head. Those are the cases in which it is very dangerous and where the obstetrician is tempted to use this powerful drug. I have regretted a number of times yielding to the temptation to give the drug because of the results obtained. In other words, the case did not conform to one of his directions for giving the drug. Here was a definite obstruction to labor. We should give the patient the benefit of the doubt and not give the drug unless we are sure there is no obstruction. Here was a slightly flat pelvis and if pituitrin had been given much harm would have been done. I remember once giving this drug after making an incision for an abdominal Cesarean section, and before I could get the child out it was terribly asphyxiated and I had great trouble in resuscitation.

It is interesting to study Dr. Cron's work in the inductions of labor at term. I read Watson's paper and was horrified at the very large amount of this drug he advocated. On coming home from that meeting I told Dr. Cron about it, and told him if he was going to try it out at the clinic to avoid these massive doses. Dr. Cron has obtained just as good results, so far as I can see, by safe doses of the drug.

One thing we should remember is to use pituitrin in postpartum hemorrhage in combination with ergot. The action of ergot is long delayed and the pituitrin acts rapidly. Together they are most

valuable drugs in obstetrics. And yet, pituitrin is a most dangerous drug.

If we will take this paper and study it so that we know when to give it and when to refrain from giving it I know of nothing more valuable in the practice of obstetrics in the last 20 years.

DR. R. S. CRON, Ann Arbor, (closing the discussion:) I was very interested to learn of Dr. Haynes' case of anaphylaxis. I have never seen anaphylaxis follow injections of pituitrin. Dr Haynes certainly gave a small enough dose. That is just about what we administer in cases of secondary inertia. The dosage depends entirely on what you are using it for. If for the induction of labor, then such a dose as five minims is sufficient and probably the maximum likewise for secondary inertia. For postpartum hemorrhage one can administer 1 c. c. without any trouble arising from the drug. The length of action also depends somewhat upon the amount. The small dose of five minims has a duration of from 20 to 30 minutes. The large dose for certainly not longer than 40 to 60 minutes. After an hour one could adminster for the induction of labor a second dose of pituitrin without giving any trouble. For the treatment of secondary inertia one could after two hours administer the second dose, provided there is no obstruction. That is the most important thing to remember in the use of the drug.

The case which Dr. Peterson outlined which came to my lot a few days ago is like a good many others. When one is associated with a large clinic where cases come in as an emergency one sees the worst results of pituitrin. I have fixed in my mind several cases, one of which I will briefly outline. A multipara, four, who had been in labor a number of days. The attending physicians had administered pituitrin, even before contractions were well established. As a result after the second injection of pituitrin she was very uncomfortable. They attempted to deliver her by forceps, but we never delivered her because she died on the operating table. It was a case of rupture of the uterus and occurred very shortly after they attempted to deliver her.

I wish some men who are connected with the clinics in the city, with an opportunity to experiment on patients in the charity hospitals, would attempt to use the drug during the third stage of labor to see whether the results obtained would compare favorably with ours. Dr. Potter used the drug when he was in Ann Arbor, during this stage of labor, and reported that he had been using it as a routine at this time. He spoke favorably of it. We certainly feel safer about the completion of the third stage, especially in regard to the loss of blood.

SCARLET FEVER QUARANTINE*

(Two years experience with the 21 day period.)

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From the announced subject of this paper it might seem that all cases of scarlet fever had been under only a 21-day quarantine.

I wish to relieve your minds from the beginning in this regard for it is not my intention to make any such rash statements and then try to prove them to be so.

Rather the two years' experience has been with a minimum quarantine of 21 days—and in a few selected cases the quarantine period has been even less, as will be shown later in the paper.

Unfortunately the series of cases is comparatively small as one might expect with a city of the population of about 40,000 people.

Also a series of cases which had been hospitalized would perhaps be better for the foundation of such a paper, but as the series is small it was deemed best to include all cases coming under observation.

A few years ago while attending a number of scarlet fever cases in which the disease was running a very mild course—I was confronted with the idea—"Why should these cases be quarantined as long as the cases which have been unusually severe but which make a rapid recovery and have no glandular or other disturbances?"

Acting upon this idea the nurses were instructd to note very carefully these cases—the severity of the disease and on subsequent calls to ascertain whether or not the patient had had any discharge glands, ears or recurrent throat complications.

We have tried to keep a nursing force with the Board of Health sufficiently large to make several calls if need be on these cases and they have been very alert to ascertain any complications that might exist.

In many instances alleged cases have no connections with the discharged case.

It is not an infrequent occurrence for a child to be admitted to a scarlet ward a few hours before his brother or sister is discharged. If these discharged patients had arrival at the homes 24 to 48 hours earlier, as in many instances they would, if they had been discharged as per the wishes of the parents or if the parents had come for them as soon as notified, the second case would have been considered a return case. This also should be taken into consideration on data that is submitted.

It may be possible for the infection to exist long after a minimum quarantine period or after convalesence has been established. This applies in my estimation only to those cases with complications such as ear, or glandular infction and also inflamed tonsils and mucous membranes.

The rule we have tried to follow has been a 21-day minimum quarantine in the uncomplicated cases and one week additional restriction before attending schools or other assemblies. Also if possible to isolate or remove from the primary case all exposed children and hold for one week for observation.

There are three principal reasons why

*Read at 56th Annual Meeting, Bay City, May, 1921.

scarlet fever is so prevalent in the cities:

1. Many mild cases are not recognized as scarlet fever—We are all aware of that type of Spinal Adjustors who do not believe in germ diseases, and until a law is enacted prohibiting the chiropractors from treating infectious or contagious diseases, scarlet fever will still prevail.

2. Failure to report contagious diseases by that group of moralists who do not only disbelieve the germ theory but discount all thought of diseases and have a criminal disregard for quarantine—the Christian Scientist's.

3. Return to school. Children may return to schools while infectious, but with medical inspection in the schools if properly conducted may be an efficient means of limiting the spread of scarlet fever.

Scarlet fever varies more in intensity than any other exanthemia, and this is another reason why the disease is so prevalent and many cases are not recognized and therefore not isolated.

Many of the health authorities do not appreciate the fact that the desquamation is not positive evidence of scarlet fever and it should be well to remember that nearly all the exythemata desquamate to a greater or less extent—also some patients ill with scarlet fever do not desquamate to any extent and it therefore follows that too much stress should not be placed on the presence or absence of the condition.

Desquamation itself, in my opinion, is not a means of spreading the disease but the desquamation when contaminated by the mucous discharge from the ears, nose and throat or broken down glands, may become an infectious agent.

Isolation is the one thing which must be depended upon to stamp out the disease, as we have no specific with which to combat it.

In endeavoring to arrive at a definite conclusion as to the necessary length of detention in scarlet fever there are two points which should help to determine the period:

1. The intensity of the disease. The mucous membranes in the severe cases are affected more severely and the mucous discharge will last longer.

2. Glandular involvement with discharges. This is a factor which should determine a much longer quarantine.

With the facts already stated we have tried to appreciate the position of the people quarantined and at the same time to follow a routine which would be in no way open to criticism.

In the following data it will be noted that this method has been used to a greater or less extent for a period of four years but with particular attention directed to a 21 period for the past two years, 1919 and 1920.

Also in this data will be shown the number of secondary cases and the time elapsing between the so-called exposures. As is noted some of these cases came down with the disease after a 10-day period from exposure. I think that the present consensus of opinion is that the incubation period for scarlet fever is from one to 10 days and more often three to five days.

If this 10-day period is taken as a limit for incubation period some of the cases reported in this paper would not be classified as secondary cases.

Upon looking over the quarantine periods given by several of the State Boards of Health, I find that the minimum period varies to a great extent. One state has a minimum quarantine of 14 days, nine states a 21-day minimum and the remainder from 28 days to 35 days as a minimum.

1917

Estimated Population 37,000

Days Quar.	Cases	Cases by months	
18	7	Jan.	26
19	17		
20	23	Feb.	18
21	8		
22	10	Mar.	62
23	10		
24	18	April	51
25	10		
26	20	May	25
27	15		
28	15	June	10
29	8		
30	10	July	1
31	15		
32	10	Aug.	2
33	5		
34	8	Sept.	6
35	9		
36	2	Oct.	12
37	1		
38	4	Nov.	16
39	1		
40	2	Dec.	14
41	1		
46	1	Four cases	
55	3	removed to	
57	1	H. Keifer	
72	2	Hospital.	
96	1	Detroit.	

Total days 6,552
Total cases 238
Average .....23 days

1918

Estimated Population 38,000

Days Quar.	Cases	Cases by months	
18	1	Jan.	13
19	4		
20	5	Feb.	11
21	13		
22	4	Mar.	8
23	5		
25	3	April	13
26	6		
27	6	May	8
28	5		
29	3	June	6
30	5		
31	3	July	4
32	1		
33	2	Aug.	3
34	2		
35	2	Sept.	1
36	1		
39	2	Oct.	5
42	2		
44	1	Nov.	2
49	1	Dec.	6
		Three cases	
		to H. Keifer	
		Hospital.	

Total days 1,970
Total cases 80
Average .....24 days

1919

Estimated Population 39,000

Days Quar.	Cases	Cases by months	
3	1	Jan.	7
16	1		
17	1	Feb.	5
18	1		
19	7	Mar.	12
20	8		
21	18	April	7
22	6		
23	11	May	15
24	8		
25	3	June	11
26	5		
27	4	July	7
28	4		
29	4	Aug.	5
30	3		
31	4	Sept.	8
32	2		
33	2	Oct.	4
34	2		
35	2	Nov.	15
36	3		
37	0	Dec.	16
38	1		
39	4		
40	0	Four cases	
41	1	to H. Keifer	
42	1	Hospital	
50	1		

Total days 2,920
Total cases 112
Average .....26 days

1920

Estimated Population 43,000

Days Quar.	Cases	Cases by months	
4	1	Jan.	27
7	1		
17	1	Feb.	24
18	3		
19	4	Mar.	30
20	19		
21	25	April	23
22	19		
23	17	May	8
24	9		
25	8	June	9
26	10		
27	10	July	4
28	4		
29	8	Aug.	3
30	7		
31	3	Sept.	4
32	6		
33	3	Oct.	11
34	4		
35	1	Nov.	9
36	2		
37	1	Dec.	21
38	1		
44	1		
45	2		
46	1		
47	1		
54	1		

Total days 4,134
Total cases 173
Average .....23 days

1917

	Onset.	Quar.	Disch.	Days
(1) 221 Colorado—				
Donelly, James	11-30-17	12- 4-17	12-31-17	31
Ellen	1- 6-18	1- 8-18	2- 4-18	29
Complications. None.				
(2) 235 Florence—				
Gardhouse, Norine.	9-13-17	9-17-17	10-11-17	28
Clarice.	9-25-17	1-17-17	10-11-17	16
Lester.	10-22-17	11-26-17	11-22-17	30
Complications Removed.				
(3) 348 Highland—				
Alexander, Agnes .	1- 7-17	1- 8-17	1-29-17	22
	2- 3-17	2- 6-17	2-21-17	18
Complications Removed.				
(4) 142 Monterey—				
Roland, Phillip	10-22-17	10-25-17	11-23-17	32
Betty Ann	10-30-17	10-25-17	11-23-17	24
Mary	10-27-17	10-25-17	11-23-17	27
Henry	12- 3-17	12- 5-17	1- 3-18	31
Complications Removed.				
(5) 150 Monterey—				
VanSchaak, Gordon	11-12-17	11-12-17	12-11-17	29
Raymond	12-13-17	12-14-17	1-12-17	30
Complications. None.				

(1) 6 days elapsed between cases—31-day quarantine.
(2) 11 days elapsed between cases—28-day quarantine.
(3) 6 days elapsed between cases—22-day quarantine.
(4) 10 days elapsed between cases—32-day quarantine.
(5) 2 days elapsed between cases—29-day quarantine.

1918

	Onset.	Quar.	Disch.	Days
(1) 184 Waverly—				
Mengel, Marion	2-17-18	2-19-18	3-12-18	23
Curtis	3-13-18	3-18-18	4- 9-18	27
Complications—Swelling of glands.				
(2) 8½ North—				
Fick, Walter	2- 4-18	2- 6-18	2-26-18	22
Amy	3- 6-18	3- 9-18	4- 6-18	18
Complications Removed.				
(3) 210 Tuxedo—				
Davenport, Vivian .	5-13-18	5-18-18	6- 4-18	21
Kellogg, Mary	6-23-18	6-29-18	7-19-18	26
(4) 238 W. Grand—				
Stewart, James	2- 2-18	2- 4-18	3- 2-18	28
Doris	3-19-18	3-21-18	4-18-18	30
Gland Complications.				

(1) 1 day elapsed between cases—23-day quarantine.
(2) 8 days elapsed between cases—22-day quarantine.
(3) 19 days elapsed between cases—21-day quarantine.
(4) 17 days elapsed between cases—28-day quarantine.

1919

	Onset.	Quar.	Disch.	Days
(1) 45 Beresford—				
Finch—Virginia	12- 5-19	12-11-19	12-31-19	26
Roy	1- 4-20	1- 8-20	1-30-20	26
Complications—Swollen glands.				
(2) 233 Ferris—				
Hommell, Alta	12-24-19	12-26-19	1- 7-20	18
Pallister, Milo	1-19-20	1-21-20	2-10-20	21
Complications. None.				
(3) 394 Louise—				
Simmer, Joseph	2-12-19	2-15-19	3-15-19	31
Helen	3-17-19	3-19-19	4-19-19	33
Complications Glands and ears.				
(4) 247 LaBelle—				
Koltonow, Elizabeth	12-29-19	12-31-19	1-19-20	21
Harry	1-28-20	1-30-20	2-21-20	24
Herman	1-29-20	1-30-20	2-21-20	23
Complications. None.				
(5) 136 Pilgrim—				
Williams, Franklin	11- 3-19	11- 5-19	11-28-19	25
Nealy, Harry	12-18-19	12-20-19	1- 8-20	20
Complications Removed.				

(1) 4 days elapsed between cases—26-day quarantine.
(2) 12 days elapsed between cases—18-day quarantine.
(3) 2 days elapsed between cases—31-day quarantine.
(4) 10 days elapsed between cases—21-day quarantine.
(5) 20 days elapsed between cases—25-day quarantine.

1920

	Onset.	Quar.	Disch.	Days
(1) 219 Gerald—				
Davison, Ethel	1-27-20	1-29-20	2-20-20	24
Godfrey	3- 6-20	3-13-20	4- 7-20	32
Complications. None.				
(2) 139 Ferris—				
Doak, William	3-26-20	3-28-20	4-19-20	24
244 Jos. Campau—				
Muriel	4-24-20	4-26-20	5-22-20	28
Complications—Ear and gland.				
(3) 137 Tennyson—				
McInerney, Francis	12-19-20	12-22-20	1-15-20	27
Charles	1-25-21			
Complications. None.				

(1) 17 days elapsed between cases—24-day quarantine.
(2) 5 days elapsed between cases—24-day quarantine.
(3) 10 days elapsed between cases—27-day quarantine.

In conclusion, I wish to say that from the material presented, I believe that with the uncomplicated cases of scarlet fever at least, the quarantine period should not be more than 21 days and a minimum quarantine of even less.

DISCUSSION

DR. WM. DE KLEINE, Flint: The Health Department of the City of Flint has quarantined 21 days for scarlet fever for the past two years. Prior to that time we quarantined 28 days. In 1917 there were 638 cases of scarlet fever reported. From January 1918 to May 1919 there were 212 cases reported. The 21-day quarantine was begun in May 1919. From May 1919 to May 1920 there were 282 cases reported and from May 1920 to May 1921 there were 467 cases reported, a total of 749 in the last two years, as compared with about 850 for the two previous years.

Of the 756 cases reported in the 1919 and 1921 period 137 cases or 18% were reported as secondary cases in the home. Of the 137 secondary cases 93 or 68% developed the disease within 10 days after the onset of the illness of the first cases in the home; 30 cases or 22% developed the disease within 15 days, and in more than 10 days; 10 cases or 8% within 21 days and in more than 15 days; and 4 cases or 2% after 21 days, and of these, 2 cases or 1% developed the disease after 28 days.

Of the 30 cases which developed the disease within 15 days, about two-thirds occurred in families where there were two or more secondary cases. It was impossible to tell whether they acquired the disease from the first case or from the secondary cases. It is fair to assume that a certain number of these were exposed to the secondary cases and therefore developed the disease within 10 days after exposure. If we add one-half of these 30 cases to those who developed the disease within 10 days then about 80% of the total number of cases acquired the disease within 10 days, 90% acquired the disease within 15 days, 98% within 21 days, and 2% after 21 days. It would seem that this evidence would indicate that the 21-day quarantine period is long enough. In many cases I believe it could be cut down even more without harm to the community.

During the last year we have not forced the wage earner to leave the home and board elsewhere. If affairs could be so arranged that it was not necessary for the wageearner to come in contact with the patient, we have allowed him to room and board at home. The importance of keeping away from the patient was carefully explained. This has brought about much better co-operation because it means less hardship both financially and otherwise. The more lenient we can treat the family in all cases the better co-operation we receive.

DR. J. D. DEACON, (State Health Department): I am very sorry of one thing, and that is that both Dr. Braley's paper and Dr. De Kleine's discussion invites violation of the law. I would not like anybody here to get the impression that it is optional with the health officer as to the length of quarantine for scarlet fever, as the law, at the present time exists. It requires absolutely a 28-day quarantine, and an absolute quarantine. However, I wish to say for myself that I fully agree with Dr. De Kleine's statement that it is no use of quarantining the wage-earner. I don't believe scarlet fever is carried about by a third person. I don't believe I have ever heard of such a case, I don't remember of hearing any really authentic cases where scarlet fever was communicated by a third person. But as long as the law is as it is it should be obeyed. On the other hand, as to the time of quarantine, I might say here that two of the states have recently returned to the 35-day quarantine. It is an open question yet as to just what is the proper period of quarantine. I would invite your attention

to one thing, and that is in the city where we have health departments, it is a very different thing from the rural health officer, who, as I sometimes say, is frequently the village drayman, and is not able to differentiate between the severe and mild cases. It seems to me that it is going to be necessary at least for some years to retain some definite minimum period. Otherwise patients will be running around inside of two or three days, which I don't think is reasonable nor proper.

DR. WILLIAM M. BRALEY, (Highland Park): In regard to recurrent cases coming within 24 hours: I think perhaps it is possible, but not probable; in our experience two days has been the minimum in which recurrent cases come.

With regard to the law of 28 days: I feel at the present time as though it is up to someone to take the initiative if we expect to have this changed, and that was one reason why I had taken it up in my paper. I think at this time it might be well for this association to take some action, and ask the state board of health to change this to 21 days.

DR. WM. DE KLEINE, (Flint): Mr. Chairman, may I say a word, just a minute. I don't want Dr. Deacon to think we are deliberately violating the law. It is not our purpose to do that at all. We want to co-operate with the State Board of Health always, and I think we always have done. I feel a good deal like Dr. Braley does. I think we are on the wrong track. I am interested in preventing scarlet fever, keeping it down, and I think we can keep it down just as well with a 21-day quarantine period, as we can with a 28 or a 35. I am an advocate of cutting it down to 15 days where it is possible. I am a strong advocate for that, I believe it is the only way to get better co-operation and a better feeling towards the health department from the people at large, especially the wage-earner. It is the only way to get it—it is the only way in which I can do better work in the city of Flint, and I want to do it as best I can. The State Board of Health is not actively engaged in quarantining people. They are making our rules and regulations, and we are doing the work. It is up to us to bring our experience to the State Board of Health, and then try to induce them to make their rules and regulations accordingly.

I am hardly in favor of recommending, in any arbitrary way, but in an advisory way, that they change their rules, and make them so that we can do our work in the way in which we think best. If you want to make rules for the village health officer, all well and good, but for those of us who are organized for the purpose of carrying on health work efficiently, don't make us law violators, but help us to do our work as we see it best.

I would like to get an expression here at this meeting, from the health officers particularly, as to how they feel about this thing, whether or not they feel they would like to handle it in their own cities?

CHAIRMAN MEADER: Would you want to make that as a motion?

DR. DE KLEINE: Yes. I am willing to make that as a motion, that we recommend to the State Board of Health that they take this matter under consideration, to revise their rules and regulations, as to the number of days—simply take this matter under advisement.

DR. DEACON: Is there going to be another meeting of the general session? I think it would be wise to bring that matter up in general session, but I would like to second that motion.

CHAIRMAN MEADER: Would it be well to bring it to the Executive Board's attention?

DR. DE KLEINE: I make that motion that we refer it to the Executive Committee, and ask them for action on this thing.

(The motion was seconded, and on being put to a vote, was carried.)

PSORIASIS, SOME POINTS CONCERNING ITS ETIOLOGY AND TREATMENT.*

GEORGE VAN RHEE, A. B., M. D.
DETROIT, MICH.

The direct cause of psoriasis is no more apparent today than it was a century ago. The opinions of various men and various schools are widely diverse. In general, it may be said that among the many theories advanced as to the nature and pathogenicity of this disease, two stand out pre-eminent: First, that it is bacterial in origin, second, that it is due to a toxemia, the result of some disturbance of metabolism.

Schamberg (1.) and his associates, in 1914, carried on a very exhaustive research on the bacteriology and biochemistry of this disease. They found a rather large number of positive Wasserman reactions using alcoholic extract of luetic liver and cholestrinized alcoholic extract of human and beef heart as antigens, in cases with no history of syphilitic infection. On the other hand, antigens made from scales and cultures failed to give a complement fixation reaction. Aerobic, anaerobic, and blood cultures failed to reveal any organism bearing any etiological relationship to the disease, except a diplococcus which was found in five cases and in one blood culture. Vaccine treatment and inoculation of extracts into monkeys gave negative results.

In their researches on metabolism they found that a psoriatic subject on a given diet eliminated less nitrogen than a normal individual or a corresponding diet. They further found that the retention of nitrogen was directly proportional to the extent and severity of the eruption. They concluded that a high protien diet exhibits an unfavorable influence on psoriasis by stimulating the proliferative activity of cells by furnishing an abundant supply of protien. To prove this point, they treated several patients on a low protien diet with favorable results, while in others they found no change.

Jamieson (2.) conducted researches along similar lines on blood chemistry in psoriatic subjects found that the increase and decrease of leasions did not correspond to the increase and decrease of non-coaguable nitrogen and uric acid.

Cook and VanAlstyne (3.) reported favorable results from the injection of nitrogen extract of alfalfa and millet seed by

*Read at 56th Annual Meeting, Bay City, May, 1921.

Beebe's method. They attempted to educate cells to assimilate nitrogen. Jamieson reports negative results following the use of this method.

Dark field illumination made by Ketron (4) were negative.

According to Winfield (5) psoriasis may be associated with tonsillar disease. No specific organism was found but the inflammation and high temperature may have produced a metabolic change sufficient to cause psoriasis. The writer has seen similar cases in tonsillitis and bronchitis. On the contrary, we have observed a disappearance of the eruption following acute infections. Cook reports several cases of pyorrhea alveolaris associated with psoriasis in which the eruption cleared after the cure of pyorrhea.

Engman and McGarry (6.) employed nonspecific protien therapy with some favorable results probably due to changes in metabolism produced by leucocytosis and hyperpyrexia.

Some French observers believe that the flora of the intestinal canal may play an important role in the causation of psoriasis. They used vaccines made from these bacteria but report no cures. Others used intravenous injections of horse serum without favorable results.

Bory (7) in 1919, after making numerous experiments cultures of scales and blood and complement fixation tests with serum of psoriatic patients concluded that insects may be the carriers of the still unknown germ of psoriasis. Further, that bacterologic examination has constantly shown a small irregular rod-like organism resembling mycelia and very much the appearance of microsporum minutissum.

Sweitzer and Michelson (8.) in studying acidosis in skin diseases found no marked change in the alkali reserve in psoriasis. They selected only well marked and widely distributed cases. Complete blood chemistry was done on four cases and no increase in urea nitrogen was found.

From these various observations we can conclude that up to the present time we have no convincing proof that the disease is bacterial in origin. The sudden appearance and disappearance of the eruption during change of season, change of diet, and following toxic and inflammatory conditions together with the work of Schamberg and Jamieson would lead us to believe that a toxemia, due to a disturbance of metabolism may be one of the most important factors in the production of psoriasis.

Internal and external remedies are employed in the treatment of psoriasis and a judicious combination of both usually gives the best results. In the systemic treatment each individual case should receive careful study, all possible etiologic factors should be kept in mind. Every case should have a complete and thorough examination by a competent internist for foci of infection.

Careful attention should be paid to the hygiene. Open air pleasures and sufficient exercise, systematically taken will have material effect in aiding the medicinal treatment. Sunlight is very beneficial in many cases. Change of climate during the winter months is often advantageous. Cases of long standing and those with a generalized eruption should be hospitalized because not only rest, but systematic treatment under supervision tends to shorten the course of the disease several weeks.

Diet has no marked effect on the disease, some cases improve temporarily on a low protein diet, while in others the eruption is exaggerated. We have placed individuals on a rice diet for several days with no change, but upon a return to an ordinary diet the eruption began to wane.

Fox (9) Trimble and Rothwell (10) used injections of auto serum. They found no benefit from the serum alone but the action of Chrysarobin seemed increased.

Nonspecific protein therapy stock vaccines and vaccines made from the intestinal flora are reported as producing favorable results in some cases. Intravenous injections of horse serum have been used.

Among the drugs used arsenic stands out foremost. It should not be used indiscriminately. In acute non-inflammatory and in old long standing cases, or in recurrent attacks which have never received systematic treatment a very favorable effect is seen. It should not be used in an acutely inflammatory condition, especially where the disease has rapidly spreading as inflammatory symptons are increased and fresh outcroppings stimulated. Arsenic may be prescribed as Fowlers solution, sodium arsenite, arsenious acid. Sodium cacodylate hyperdermically is often of value. Salvarson in any form has not proved beneficial. Alkalis, potassium iodide, the salicylates, and phenol deserve honorable mention.

Except in cases where the inflammatory symptons are slight, the patches few in number, and small in size, local treatment is indicated. For the removal of scales alkaline baths, keratolytic agents and bland oils may be used. Turkish steam cabinet

or hot air baths are effacacious. In many instances, this form of treatment together with internal medication is sufficient, but in most cases more vigorous therapy is necessary.

One of the most efficient of all local remedies is chrysarobin. According to Schamberg (11) the superiority of this drug over others is probably due to three factors: First, its resistance to oxidation on exposure to air. Second, its strong reducing reaction. Third, its chemical affinity for and firm union with the protiens of the skin.

"For this reason it is possible that the firm chemical union and abstraction of oxygen results in a restraining influence upon the proliferative power of epithelial cells. He also believes that there are three stages of the disease, the developmental, the quiescent and the stage of spontaneous decline. Now if the disease is attacked with chrysarobin during the developmental stage harm is done but during the quiescent stage the drug has a marvelous effect on the eruption."

Mook (12) gives a formula used in the British army during the war in which phenol was added to the chrysarobin. He also states that the British used the drug during all stages with good results. We have had no experience with this formula but believe there might be danger of phenol poisoning.

During the last two years Jamieson and the writer have had difficulty in obtaining a therapeutic reaction from the use of chrysarobin. We have used it in high and low prcentages. So far we have not been able to ascertain the cause unless the quality of the drug used is below standard or chrysophanic acid which is the oxidized product of chrysarobin and is therapeutically inert was substituted.

The use of chrysarobin has its disadvantages which restricts its employment: First the tendency to produce a severe dermatitis; second, staining of the skin, hair, nails and clothing.

Tar in its various forms has proved valuable. When used in cases with an extensive eruption toxic symptoms may appear which subside upon withdrawal of the drug. Ammoniated mercury is used in lesions of the face and scalp and also in acute eruptions. When used in extensive areas mercurialism may result. Bechet (13) reports a case of mercurial ptyalism using an ointment of two and five-tenths per cent.

X-Ray is a very effective remedial agent. The exposures should be short and frequently repeated. It should not be used on the scalp as a permanent alopecia may occur. Electric arc lights and alpine sun are very beneficial. Thus far all remedies and methods employed in the treatment of psoriasis do not insure against relapses.

CONCLUSIONS.

1. At the present time we have no proof that psoriasis is a disease of bacterial origin.

2. Psoriasis is probably due to a toxaemia resulting from a disturbance of metabolism.

3. Treatment is constitutional as well as local.

I wish to express my gratitude to Dr. R. C. Jamieson, for many helpful suggestions.

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DISCUSSION

DR. CONRAD GEORG, Sr., Ann Arbor: Many years ago I had my first case. I removed the scales with cod liver oil to get down to the scalp. The man told me that he had it a long time. He came to me because I was the youngest beginner in the city and, of course, knew the most. The case recovered. It recovered in the course of a few weeks. I had this man under observation for years, and it remained well. I paid no attention to diet or to metabolism, as we did in those days.

Since that time I have met several cases. I applied the same treatment. Cod liver oil for removing the scales down to the cutis vera or epidermis, and Fowler's solution until the case was cured. Then, of course, I, as a general practitioner, had no further interest in the case.

DR. GEORGE VAN RHEE Detroit, closing): I haven't anything to add. In my few years of observation I have seen no cases cured, absolutely cured. I am not saying they cannot be cured, but the majority of cases recur.

SURGERY OF THE PANCREAS*

B. M. DAVEY, M. D.
LANSING, MICH.

The Pancreas is a solid glandular retroperitoneal organ of important physiological functions, located transversely across the upper posterior abdomen.

It lies over the first and second lumbar vertebrae, aorta, vena cava, splenic, superior mesenteric, and sometimes the left renal vessels; and is covered anteriorly by the

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posterior parietal peritoneum and frequently by one or more of these structures—gastro-hepatic omentum, stomach, gastro-colic omentum, transverse colon.

This gland is arbitrarily divided transversely into head, neck, body and tail. It weighs about three ounces, and is six or more inches long, two inches wide, and one-half to three-fourths of an inch in thickness, and is shaped like a hatchet. It is light pink in color, except when greatly engorged with blood, then red.

The first part of the duodenum forms a bed for the head or hatchet part of the gland.

EMBRYOLOGY

A brief review of the embryology and histology of the Pancreas may not be amiss. It develops from two separate anlagen. The first, or dorsal, appearing at the fourth foetal week, is an outgrowth from the duodenum. Slightly later the second anlage develops as two outgrowths, one from each side of the early bile-duct. One of these, the left, atrophies, leaving the right to develop and its intimate association with the bile-duct is retained throughout life. From the dorsal anlage, growing more rapidly, the body and tail of the Pancreas is derived, opening into the duodenum by the duct of Santorini. The ventral portion, in consequence of change of position in the gut, suffers displacement to the left and behind growing towards the dorsal gland with which it soon fuses. Thus is formed the head of the Pancreas; its outlet being known as the duct of Wirsung. Usually the duct of Santorini loses its connection with the duodenum, and becomes entirely tributary to the duct of Wirsung.

In its general structure the Pancreas agrees with some of the other glands of the body; for instance the parotid. However, there are some important differences—tubular instead of saccular alveoli, the marked differentiation of a granular zone in the protoplasm of its secreting cells, the absence of specialized intra-lobular ducts, and the presence of the Islands of Langerhans.

The chief pancreatic duct gives off numerous inter-lobular branches, which are lined with a single layer of columnar epithelium. The relatively long intermediate ducts pass directly into the tubular alveoli, within which their attenuated epithelium protrudes as the "centro-acinal cells." The relation of the latter to the usual glandular elements lining the alveolus is peculiar, the thinned-out and spindle duct cells being surrounded externally by the secreting cells. The tubular alveoli of the gland, often tortuous and divided, possess a membrane propria against which lie the secreting cells.

During functional activity the cytoplasm exhibits two well differentiated zones, the inner one, which is highly grandular, and the outer one, almost homogenous. The relative width of these two zones varies with the functional activity of the cells. During fasting, the granular zone is broad, and the outer clear one narrow. With the discharge of pancreatic secretion during digestion, the granular zone diminishes and reaches its minimum, almost disappearing when the gland is exhausted. Rest is accompanied with a return of the zymogen particles in the granular layer.

The "Islands of Langerhans" appear as a small collection of cells, some three-tenths of a millimeter in diameter, lying between tubular acini, from which they are separated by an envelope of connective tissue. These cells, although developed from the same tissue as the ordinary glandular elements of the Pancreas, are considerably smaller, polygonal in shape, and have no characteristic zone structure. These islands of cells are abundantly supplied with large capillaries, but no excretory system of tubules has ever been demonstrated.

Aberrant pancreatic tissues with duct connection have been found in the walls of the stomach and small intestines.

The organ is rich in vascularity, both blood and lympathic. Its head receives many small arterial branches from the gastro-duodenal and hepatic, likewise similar branches from the superior mesenteric to the posterior part of the head, neck, and a small branch to the lower border of the body. Branches from the splenic artery supply the upper side of the body and tail. The lympathics are closely related with those of the duodenum, bile passage, and surrounding structures.

This organ secretes daily about 1,500 cubic centimeters of fluid containing the body's chief digestive ferments—trypsin, lipase, diastase, maltase, nuclease, and a small amount of rennet-like ferments. It also furnishes one or more important internal secretions, which have to do with carbohydrate metabolism, and possibly a hormone, which aids intestinal absorption.

Recognizing the many important blood vessels of and in the proximity of the gland and the physiological importance of these ferments, one cannot but have great respect for their producer, and use the keenest judgment in mapping out any line of treatment in injury or pathology thereof. Thus

let us approach a discussion of the conditions which may be helped by surgery with all due respect to his majesty, the Pancreas, the only organ with ferments capable of digesting all classes of foods.

SURGERY

It is not in the scope of this paper to say much of the common surgical lesions of the Pancreas, which are correctable by surgery on the adjacent viscera; but to deal with the surgery of the organ itself. Thus an acute and chronic pancreatitis in their various stages may be, and are, treated successfully by removing stones from the bile passage and long continued drainage thereof; excision of duodenal and gastric ulcers with gastro-enterostomy, appendectomy, etc. While further experience may teach us that in the absence of any of the above conditions and in the presence of acute pancreatitis, it may be wise to establish drainage and even make superficial incisions and punctures of the Pancreas. This has been done by Korte with a fair degree of success, and even recommended by Deaver (1) in his recent contribution to Ochsner's Surgery.

The conditions which are amenable to surgery of the gland.

Injuries:

Wounds from knife or penetrating implements, gun-shot, crushing contusions or lacerations, and those following rough surgery in freeing gastric and duodenal perforations, into this organ.

These injuries are surgical and the timely institution thereof offers the only hope for rewarded results. In these cases, other than the last mentioned, there are no symptoms by which one can be guided that the Pancreas is involved. One has to be guided by the history, the condition of the patient, and by careful, rapid exploration. Noguchi and Wohlgemuth (2) report the findings of an increase in diastase early in injuries of this organ. The institution of at least drainage is imperative in these injuries. One may be able to take superficial catgut sutures in the gland in case of a clean cut or laceration, coupled with efficient drainage. Needless to say, that these injuries are nearly always accompanied with those of other viscera, and that these should receive first attention.

Truthful surgical statistics of the recent war should furnish us invaluable information on gun-shot injuries of the Pancreas. Holzwarth reports a case of gun-shot wound penetrating the gland with recovery and later followed by the development of cysts at the anterior and posterior openings.

Crushing accidents, as being jammed between cars, run over by a heavy load, or any severe blow, may cause contustion and lacerations of the Pancreas.

Case 1. Mr. C. J., 49 years of age, a Hungarian. On May 19, 1916, he was injured in a local lumber plant, being hit by a piece of stanchion, which became caught accidentally by the saw he was working and hurled with great force against his upper abdomen.

Examination, immediately after accident, showed no break in the skin, but pressure to stomach region gave excruciating pain, also signs of shock were present. The evidence was sufficient to warrant an exploratory operation, but same was refused.

During the first 24 hours the patient's condition grew worse—rising temperature, rapid and running pulse, terrific pain which huge doses of morphine did not control.

After the first day unmistakable signs of peritonitis were manifest. Forty-eight hours after injury, patient finally consented to operation on account of his intense suffering.

The operation revealed sero-purulent fluid through the entire peritoneal cavity, a perforation of the stomach, which was closed. There was a large bulging necrotic mass behind the stomach. The lesser peritoneal cavity was suffused with a bloody fluid. Patches of fatty plaques were present. A large drain was placed into the lesser peritoneal cavity; others through stab wounds in the abdomen.

Patient grew progressively worse and died two days later.

CYSTS.

These are the common lesions for which surgery has played an important role with relative frequency and varied degree of success for nearly half a century.

Cysts are classified as true, pseudo, and echinoccoocus, the last being extremely infrequent. A true cyst is one having its origin from the gland substance and at some time has its own epithelial lining. A false cyst is an accumulation of fluid within or about the organ, having a capsule of connective tissue produced by inflammatory reaction.

Among the true varieties a few instances of cysts in the fetal gland have been reported. Obstruction or retention cysts, induced by some form of chronic pancreatitis causing stricture or plugging of the main or tubular ducts by calculi; these cysts are usually small and numerous, but may grow to an enormous size.

Cystadenomas, similar to those of the ovary, occur in this gland, but unlike the ovarian form with the small pedicle attachment, have a broad base attachment frequently involving most of the gland. Such attachment is separated from the pancreatic substance by its capsule. In this variety as in the ovarian, malignant change may occur and then the gland substances become involved. Cystadenomas do not contain

the gland ferments in their fluid.

Pseudo-cysts—In this class may be mentioned the hemorrhagic cysts resulting from bleeding into the gland substance with partial absorption and the residium converted into a cyst cavity.

Also the cyst of self-digestion. This class may be inaugurated by ferment activation following injury or bacterial invasion. When this form is violently severe the Pancreas digest itself and the surrounding structures, and the patient soon succumbs. While in other cases the process becomes limited, the acini and ducts become sealed by scar tissue, and the destroyed tissues and fluid remain in the lesser peritoneal sac, encased in an inflammatory capsule formed from the surrounding tissues. This kind of a cyst is claimed to be among the most common.

Cysts vary in size, the majority being small and containing from a half to three liters; however those containing as many as 15 or more liters have been reported.

These cysts present themselves according to the part of the Pancreas involved, and also, the relative position of the other viscera in the following locations—pushing the gastro-hepatic omentum upward, if the stomach is low and the superior border of the neck and body are involved; under the gastro-colic omentum, when the other viscera are anatomically placed and the anterior, inferior portion of the neck, body, and tail involved. The usual location of presentment is the left epigastric. Occasionally in the pseudo variety and developing from or near the tail, such cysts may gravitate to the left loin and appear in the kidney region, while it is also said such involvement of the head may gravitate in like manner and appear in the right loin.

In about one-half of the pancreatic cysts it has not been possible to trace their origin, while one-fourth are ascribed to trauma, and the other one-fourth to the inflammatory processes.

There are no symptoms typical of this or any other form of pancreatic disease. Pain of an indescribable character is mentioned by all writers, as having some characteristics of gall bladder, stomach, and intestinal disease, but does not prove up with any other lesion. Some loss of weight without cachexia has been a common finding.

These tumors do not move with respiration. Glycosuria has been found with varying degrees of frequency by various writers; Korte observing this condition in about one-fourth of his traumatic cysts.

If the gland substance is much destroyed, evidence of its functional disturbance may be present, such as glycosuria, and the stools be greasy and contain undigested fats, proteins, and carbohydrates.

Surgically these cysts are best attacked at the most prominent or bulging area. Should the tail be involved and the bulging in the left loin, one can approach in the easiest and safest of all routes, through the loin, carefully keeping outside and freeing the peritoneum to the cyst.

If the cyst is large, its wall is sutured to the muscle and fascia. A trocar is inserted into cyst and its contents allowed to drain off; after which the opening is made sufficiently large to admit a finger and the cavity is investigated for stones and other debris, which if found are removed with forceps. A rubber tube is placed at the bottom of cyst and purse-stringe at exit. The wound is closed and smeared with sterile vaseline.

Should a section of the head be affected and the presentment in the right loin, similar steps would be taken, adding the immobilization of the duodenum. Drainage from either side is short, and if sinus persists for a long time, it is of less consequence and easier taken care of.

The great majority of cysts present in the left epigastric region and must be approached through the trans-peritoneal section. The mass presents most frequently between the stomach and colon; and access is obtained by incising the gastro-colic omentum and the posterior parietal peritoneum to the cyst, perferably over its most bulging area. The cyst's wall is carefully sutured to the anterior parietal peritoneum and subsequently opened, explored, and treated as before mentioned. If the bulging part is near a blood vessel, one might safer open the cyst at a less prominent section.

In approaching these tumors, if through the meso-colon, extreme care should be used not to injure the middle colic artery, for in such an happening, it is absolutely imperative to do a resection of the part of the colon supplied thereby. Deaver lays particular stress on this accident.

If the cyst appears above the stomach it receives like treatment.

It is of paramount importance to wall off the wound and surrounding viscera with gauze packs in handling these cysts, for the danger resulting from the leak of its secretion is great.

Case II. Mr. H. G., 37 years of age, married, laborer, Belgian. Past history negative; always well

except for present trouble. The onset of present illness is rather indefinite; about four years ago he had vague pains in his epigastrium at irregular intervals; these grew in intensity, and were attributed to "indigestion."

Last six months he began to suffer to such an extent that he had to give up his work. He restricted himself to soft diet, which alleviated his distress and pain somewhat. Patient lost 30 pounds in weight within six months. This alarmed him and induced him to seek medical aid.

Patient was first seen March 19, 1921.

Physical examination showed a fairly well-nourished male of medium stature; temperature, 98.6°; pulse 70; respiration 19; head negative except for poor teeth; neck and chest normal. Abdomen bulged below costal margin to left of xyphoid process. Mass in region of cardiac part of stomach resembled a gaseous distended tumor, not painful to manipulation. Slight tenderness about two inches above the umbilicus was noted; otherwise negative. All laboratory examinations were negative.

The fluroscopic examination showed an anchored mass beneath left diaphragmatic arch, having no connection with the stomach. It contained fluid and by pressure could be distended. There was no connection with left pleural cavity. Also some gastroptosis was shown. The barium meal showed the same conditions, besides rapid emptying of stomach and small intestines with some stasis at cecum, but no pronounced pathology in the gastro-intestinal tract.

Patient was operated on March 25, 1921. A high midline incision was made. Stomach, duodenum, and gall-bladder were found normal. A large cystic mass, size of a large orange, adherent to the liver and diaphragm, and attached with a broad base to the body of the Pancreas, was drained The cyst contained a brownish liquid which digested protein and later caused distinct erosion about the wound. Appendectomy was also performed.

By April 17 wound has practically ceased draining. Patient made a normal convalescence.

ABSCESSES.

These may follow some of the forms of pancreatitis, and infectious processes located elsewhere, possibly some of the infectious diseases, and may occur without any ascertainable explanation.

It is ushered in with chills and fever, severe pain, nausea, vomiting, and all the evidences of a critical illness, and demands surgical relief or death will follow.

Case III. February 8, 1919. Mr. D., age 57, bachelor, farmer. Family history of no importance. Scarlet fever and measles in childhood; three attacks of malaria between the ages of 27 and 35; belching gas with sour stomach for short periods from age of 50 to present; constipation requiring cathartics three or four times a week for the past three years; total abstinence from liquor, tobacco, and drugs; never had any venereal disease.

Three weeks previous began having chills and fever with general aches and pains.

Physical examination—temperature 102, pulse 120, blood pressure D 80, S 138; skin wrinkled and loose and of a sallow color; head negative otherwise than the complaint of generalized pain; nose, throat, and teeth in good condition; chest negative. Abdomen was distended, tense, and drum-like sensitive in upper central extending to left hypochondriac region. Found a distinct, immovable, smooth mass, the size of a grapefruit, in the left epigastric region.

The patient was sent to hospital for further study and observation. His blood and urine were normal to all tests at repeated intervals. Glycosuria never occurred at any time either before or subsequent to treatment.

X-ray stomach exposure after opaque meal showed gastroptosis and marked deformity, pars media saculated and pars pylorica constricted to the size of a lead pencil to the right of the vertebral column. After several days hospitalization, his temperature receded and he seemed improved. His lower abdomen became flat, allowing the mass to be noticeable.

The taking of food, even liquids, produced much pain and was soon followed by nausea and vomiting. Since the beginning of this trouble he has lost 20 pounds in weight.

After several consultations he was informed of the serious character of his trouble and of the consequences with or without surgical intervention. On his insistance that something be done for him regardless of outcome, he was scheduled and prepared for operation on March 13, 1919.

A long incision was made through the outer border of the left rectus. Appendix was examined and found nearly obliterated; gall-bladder of a bluish color, small, and easily emptied; hepatic and common ducts free and of normal size; duodenum, pylorus, and stomach normal to inspection and palpation; large, full, firm veins in the gastro-colic ligament. This ligament was separated at the most bulging part of the tumor. The posterior parietal peritoneum was stretched thin and a fluctuating mass, broad as a hand, presented.

It being evident that to incise or try to separate the posterior parietal peritoneum would be hazardous; a circular stitch of chronic No. 1 catgut was made through the anterior and posterior parietal layers encorporating a small bite of the tumor covering a space of an inch. The abcess was drained with trocar and canula of a cupfull of bloody purulent fluid. A large size catheter was slipped through the canula to bottom of cavity, and a purse-string suture of both layers of peritoneum made snug around catheter.

A bed-side bottle attachment received from one to two ounces daily for six days, from seventh to tenth days no drainage; wound looked good; catheter lose and removed; eleventh and twelfth days there is discharge on the dressings. Patient says he feels fine, eats, sleeps and looks good. Thirteenth day he had a severe hemorrhage, saturating dressings and gown; wound packed tight. On the following day a mild hemorrhage; wound edges markedly eroded and evidence of fat necrosis; fifteenth and sixteenth days a little bleeding. On the seventeenth day death intervened from a terrific hemorrhage.

At a hurried "post," fat necrosis was present throughout the lesser peritoneal sac and the abdominal wall; the surrounding structures were suffused in blood; necrotic openings were found in both splenic and superior mesenteric arteries.

CALCULI.

Calculi of the Pancreas are rare. Oser (4) in 1903 reported a collection of 70 cases. Opie found three in 1,500 post-mortems. These stones are seldom recognized and are accidental findings at operations or found at autopsy.

Moynihan (5) reports a pre-operative diag-

nosis confirmed by operation in which he successfully removed a stone from the papilla of Vater by going through the duodenum. Several other surgeons have used the duodenal route in extracting stones from the papilla. The gland has been excised to the ducts of Wirsung and Santorini, and stones removed therefrom by Listanti, Ruth, (6) Stoeblin, and others. In each case the gland was sutured and drained. The literature contains many reports of calculi being found in cysts and abscesses.

Other tumors of this organ are infrequent. Fibromas and adenomas have been found and instances of successful removal have been made by Biondi, Korte, and Mayo Robsen.

Cancer as compared with other lesions is frequent. Some statistics give pancreatic involvement in from one-half to one per cent of all cancers. Needless to say that the treatment of cancer of the Pancreas is not surgery.

In conclusion, if the abdomen is open and all viscera are found normal, before removing the appendix, examine the Pancreas.

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DISCUSSION

DR. L. M. BOGART, Flint: I have only come across two cases of pancreatic lesions and both were acute pancreatitis cases. One was when I was an interne in a Chicago hospital. A man was brought into my service on Christmas night with what I thought was acute peritonitis. The staff man was called and operated. The peritoneum was normal. The bowel was normal and the appendix was normal. The only thing he found was an enormously enlarged Pancreas. The history of the case was only of 24 hours' duration. He drained the case and the man got well. He was on my service for about two months. The other case was in my own work. About a year ago I was called to see a man with a temperature of 104, a leucocyte count of 22,000 with about 90 per cent polymorphonuclears, and great distention. I thought I could feel a large tumor. I opened the abdomen and the bowel was normal. Everything within the abdomen was apparently normal except the large Pancreas I did the same thing that my previous chief had done, but the man died. The thing I want to bring out is that we overlook cases of acute pancreatitis. It is very rare but at the same time it does occur.

As far as the occurrence of pancreatitis following injury to the Pancreas, I do not know much about that. The first case I saw gave a history of injury 10 days previously, but the man continued about his work. The second case gave no history of injury and only a history of 24 hours' duration.

DR. W. R. CLINTON, Detroit: I looked up something about it the other day and found that some authorities say that the bile backs up into the pancreatic duct which causes distention of the Pancreas. I remember one hemorrhagic cyst that was drained in which we had the same experience as Dr. Davey. The patient had a hemorrhage on the fourteenth day, another on the sixteenth and then passed away. I had another pancreatic cyst which I drained twice. It contained sero-pus and that man made a recovery. Sometimes in chronic cysts the X-ray shadow in pneumoperitoneum may help to differentiate the condition. In many cases the finding of pancreatinin in the urine may aid in the diagnosis.

DR. J. E. DAVIS, Detroit: This subject illustrates very well the type of case of which no one has a sufficient number of experiences to advance the surgery as fast and as far as it should be advanced. Consequently here is a field where experimental work ought to be done in a considerable amount before we can really get very far in our surgical results. The problem, however, I think might be stated in this way, that the pathology is largely that of a secondary irritation rather than primary. It must be so because in post-mortem we really find very few definite instances of primary pathology. We do find a few cases in which we can definitely demonstrate an irritational pathology and some unimportant changes in the Pancreas. The most important changes perhaps that we see the essayist has spoken of and these are taken care of very well. We have some small hemorrhagic conditions that are taken care of, but where we have these conditions in the face of a definite infection, then the condition becomes important.

In regard to the irritational pathology one has to always bear in mind that the duodenum when involved in any pathologic change makes a very serious physiologic condition for us to care for. With this condition I think we can frequently not demonstrate pathology in the head of the Pancreas. Especially so is it when there is no broad attachment of the Pancreas. I have had occasion to observe the differences there are in the extent of the attachments of the Pancreas to the duodenum. That is quite noticeable in the different animals. For instance, in the dog there is a very long attachment of the Pancreas to the duodenum. Also in splenic pathology we may frequently have some changes in the Pancreas. Also, I am satisfied that we have occasionally changes in the Pancreas due to infection in the colon. The essayist has spoken of that condition. I think one might approach the entire subject by considering it under a number of heads. We have had a good deal of attention to the formation. I think that is well, because it is a question whether the ducts of Santorini and Wirsung are both patent or whether the duct of Wirsung remains patent just for a time and then after a certain pathologic change does not functionate any longer. In some of those cases the duct of Santorini may become over-functionated. Sometimes the duct of Santorini is patent and Wirsung is not. I think the most important of all is the irritational condition. I think it is best always to attack a problem like this, going through the fundamentals just as the essayist has done and then if we have to advance in surgery it must be done largely through experimental work.

DR. W. F. METCALF, Detroit: The remarks of Dr. Davey bring up some recollections in this field of work. As I did not have the program, I did not have an opportunity to look up any cases. I can recall operating on only one case of cyst of the pancreas. It was an infected cyst and the patient lived. It was a long-standing infection.

Every case of cancer of the Pancreas has been fatal. Dr. Davey's remarks as to the relation of the conditions opens up the whole field of the question of diagnosis. The secretions are disturbed. I am speaking of cases in which there are no tumors, but in which the secretions are disturbed. I have a man now I am studying. He has been to every clinic. I have not yet made a diagnosis. He has had abdominal sections without avail. In such cases I make an attempt to examine every part of the body, because I feel that the nerve centers are

disturbed and secretions are disturbed accordingly, producing a condition similar to organic change.

DR. B. M. DAVEY, Lansing, (closing): Dr. Davis brought up one point that I must not have mentioned that is correct. In about half of these cases the duct of Santorini continues to function and that is proved by the statistics of Oppi, who has done some 6,000 post-mortems. Sometimes, too, the duct of Wirsung does not function and sometimes they both functionate, but in the great majority of the cases the duct of Santorini becomes a tributary to the duct of Wirsung.

A PRELIMINARY REPORT ON THE STERILIZATION OF NOSE AND THROAT DIPTHERIA CARRIERS WITH THE ULTRA VIOLET RAYS.

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DETROIT, MICH.

At the request of Dr. Fred M. Meader, Chief of the Contagious Disease Division, Detroit Board of Health, the author has treated forty or more chronic nose or throat diptheria carriers with ultra violet (also called chemical or actinic) rays from the Kromayer lamp. The results obtained on the first twenty or so patients induced the author to believe that with improved technic nose and throat diptheria carriers could be sterilized. With the perfected technique all nose and throat carriers treated with the Kromayer lamp have been sterilized so far as the author knows.

In submitting this paper, your attention is particularly called to the following: The series of cases herein referred to all came from the Detroit Board of Health. The assistants of the board made subsequent cultures which were examined and reported upon by the Board of Health Laboratory. Quarantines were lifted only after two successive negative cultures were obtained. With the checking up and disposal of each case in this manner, what really has happened is that the Board of Health verifies our own experience, thereby substantiating the statements which we feel in duty bound to make regarding the work of the Kromayer Lamp in this class of work.

The treatment is simple and practically painless.

In treating diptheria carriers, the ultra violet rays are projected on to the tonsils through a hollow metal tube applicator six inches long, one-half inch in diameter, with the end slanted so that it fits over the tonsil. We attempt to play the rays directly on all portions of the tonsils for three to five minutes. One to three applications may be required to entirely cover each tonsil. The tonsils are treated separately. Fully 50 per cent of our later cases were sterilized with one treatment. If the cultures come back positive, the same procedure is repeated, giving a four to six minute dose. The second treatment clears up most of the remaining 50 per cent of cases. Three or four cases have required a third treatment, same dosage as the second treatment. None have required four treatments.

For a number of years, diseased tonsils have been sterilized and materially reduced in size by the use of Ultra Violet Rays, so it was only a small additional step to utilize same for the treatment of diptheria carriers.

The technique in treating nasal carriers is but slightly different. The mucous membrane is contracted by the application of 10 to 15 drops of adrenaline chloride solution. A flattened curved quartz rod nasal applicator is used. Ten minutes' time is taken for each nostril, the applicator being slowly worked back as far as it will go and then slowly withdrawn, endeavoring to evenly distribute the rays. The cases treated with this technique have been sterilized in one treatment. The nasal treatment is based on the fact that ultra violet rays will shrink turbinates, greatly relieve or cure coryza, hay fever and the different sinus infections.

The following experimental laboratory work in connection with the treatment of these cases was done by J. F. Miller, B. S., recent bacteriologist at Providence Hospital, Detroit, now at the University of Paris, France. The work was done between May 18 and June 30, 1921, the Kromayer lamp being turned on at the fourth button. All cultures were thick, heavy, vigorous, growing cultures, the germs being present in infinitely greater numbers than would be found in the human nose or throat.

Mixed cultures of diptheria bacillus, straphylococcus albus and streptococci were prepared from diptheria and septic tonsilitis throats and transferred from culture to culture until the growth was strong and luxuriant.

The following table shows results when the petri dish agar cultures were held close to the Kromayer lamp:

Exposure	Effect end 24 hrs.	Effect end 48 hrs.	Effect end 56 hrs.
30″	none	none	
60″	slight growth	good growth	
90″	none	slight	
2′	none	none	slight

(This exposure showed end 7 days, growth which

would be considered normal in untreated cultures at end of 24 hours.)

2'15" No growth 5 days. Slight growth 6th day.
2'20" After 14 days, no growth.
(Showing complete sterilization in 2 min., 20 sec.)

The Ultra Violet Rays from the Kromayer lamp were projected into Detroit Board of Health Blood Serum Culture tubes containing a luxuriant growth Diptheria Bacilli, with the following results:

Exposure	Effect
1 minute	Unaffected.
3 minutes	56 hrs. No growth
5 minutes	56 hrs. No growth

(That portion of tube more than two inches from light showed growth. The proximal two-inch portion showed no growth.)

The table following gives the results obtained through the Tonsillar applicator, as described above, the Light being projected onto thick, small growths on Petri dishes.

	Effect		
Exposure	24 hrs.	48 hrs.	72 hrs.
1, 2, 3, 4 minutes	none		
5 minutes	slight	good	
6 minutes	none	good	
7 minutes	none	none	slight
8 minutes	none, end of 7 days.		

From June 10 to June 25, between 12 o'clock noon and 2 p. m., when the sunlight was intense, similar cultures on Petri dishes were exposed for one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen minutes, with very little inhibition of growth. Cultures exposed sixteen minutes showed some growth.

An interesting point is that while it takes eight minutes at six inches to sterilize the cultures using the tonsillar applicator, we have killed the diptheria germs in the tonsils through the same applicator in two minutes, the treatment of an individual area usually being three minutes. In the author's opinion, this could be considered as evidence that the ultra violet rays do more than sterilize, that they bring an increased flow of blood to the diseased tonsils and that this increased blood supply greatly aids in overcoming the infection. It has been known for years that ultra violet rays bring about an increased flow of blood and lymph through the treated parts.

Diptheria toxin treated for five minutes with ultra violet rays is rendered harmless.

It would seem logical to use ultra violet ray radiations as an adjunct treatment in diptheria, as it is well known that acute or chronic tonsilitis and quinzy are all benefited or cured by these rays. Many writers believe ultra violet ray radiation to be the best treatment extant for these cases.

TWO GIRLS IN A BOAT

I have just been reading a pamphlet written by Will Irwin. It deals with some facts and figures regarding venereal diseases. To introduce his story and illustrate what he believes to be the attitude of the American people towards this scourge, he tells a story:

"Two young men, escorting two very nice young girls, went boating on a Western river. Suddenly they heard shouts for help. They looked and saw that a man, swimming, had been caught in the swift current. The young men rowed toward him with all haste. And then one of the girls began to scream.

"Heavens," she cried, "we can't take him aboard. He isn't dressed. He's—he's naked." The other girl joined in the protest. Their escorts ignoring continued to row to the rescue of the drowning man. The girls went hysterical. They clutched at the arms of the rowers, and before the struggle ceased, it was too late. The man was drowned."

All this happened in the West when Will Irwin was a small boy, and he vouches for the truth of the story.

It may be hard for you to believe, but during the four and one-half years that fifteen nations engaged in the World War, they were losing more lives from venereal diseases than from bullets, shells, bombs, gas and all the other ghastly wholesale killers. The record for 1920 is in the same percentage as during the war. It will be the same if not greater, in 1921. Yet these two diseases present no mysterious problem to the modern physician. They may be cured, and they may be checked at their source. Why then, have we not acted, we who claim to be civilized? Simply because we have assumed the attitude of the two silly girls. To put it in Irwin's exact words, "We have been too nice, too rotten, too nasty nice to come out in the open and fight against syphilis and gonorrhea.

The following facts are not conjectures, guesses, or exaggerations of alarmists. They are a brief synopsis of cold facts gathered by calm men, and proved and approved by our government. Of the two diseases, syphilis is the killer. It is the sole cause of locomotor ataxia, and develops into several fatal complications. Statistics indicate that it actually kills 300,000 people in the United States every year. We lose in four years as many people through the ravages of this loathsome and awful disease as France lost in the same length of time in the war with Germany. Tuberculosis, heart disease, cancer, pneumonia—and all other diseases give way to syphilis. Eighty years ago it was a common thing to see people with pock-marked faces who had recovered from smallpox. Science has overcome the ravages of smallpox. We know it is no longer necessarily fatal. We seldom see a person with the tell-tale marks. Syphilis will yield to treatment as well as smallpox. Then why should we not handle it as rigorously. Because, as Irwin says, we are too nasty nice.

Gonorrhea is much more common and far less fatal. It seldom, if ever kills directly. It often leads to fatal diseases, however. In modern war, artillery kills two men and wounds three. Rifle

and machine gun fire kills one and wounds five or six. That's the average. Syphilis is the artillery of our hidden foe; gonorrhea is the small arms, for this less fatal but more prevalent disease leaves an awful path of impaired health and pathetic affliction in it's wake. The sad facts are that thousands of women suffer for the permiscuity of their husbands before marriage. It cannot be dismissed with the shallow phrase that "they brought it on themselves." Eighty per cent of the blind babies of a few years ago were the unfortunate victims of the sins of one or both of their parents.

Nearly all the so-called fatal diseases of fifty years ago have been conquered by science. For that matter, so have syphilis and gonorrhea. But because of the ignorance of many men; because of the secrecy and shame; because of the quacks and dishonest members of the medical fraternity; and mainly because of the "nasty nice" attitude of you and I and all the rest of us, we are making no headway against the diseases. They are as prevalent as ever. The percentage of deaths is as great. Some of the after effects such as blindness at birth, are not as bad, thanks to science.

Of course, there would be an awful roar go up if a medical examination was necessary to procure a marriage license. It would be a sensible measure. It will be in effect some day. Simply because we will have to do it, not because we want to. But there are parents in Mason today who some day will rue the day their daughter was married. Because this community, like every other community, has its cases. And these cases are unknown except to a few. They will continue to mingle with society as has been the custom for years.

Until the laws of this country are what they should be, the education a child receives from its parents and at school is about the only protection to be had from this menace. Education, religious training, recreation and entertainment of the right sort will all help, but it will not prevent the infected skunk from mingling with your young folks. There is serious cause for concern and every parent should not neglect to do their individual duty and influence.

We congratulate and commend this Mason, Michigan editor for this editorial published in his local paper. May there be more editors who will thus openly address their readers on this subject.

THE MODERN METHOD OF FEEDING INFANTS

Modern infant feeding calls for a formula suited to the individual requirements of the individual baby. The physician now realizes that an infant deprived of breast milk must be fed as an individual The nourishement from the infant's food is principally derived from cow's milk. The "foods" contain no mysterious life giving elements but are used as modifiers. As such they are indispensable for their carbohydrate content, the added carbohydrate being necessary to make up for the loss of carbohydrate when cow's milk is diluted with water. It is also important that these "foods" are given as carbohydrates and should not contain a mixture of vegetable protein and fat, since the cow's milk supplies animal protein and fat in proportion suitable for the growth of most babies.

Infant feeding should be directly under the control of the physician. Realizing this important fact, Mead Johnson & Company of Evansville, Indiana, have manufactured a line of Infant Diet Materials suitable for the individual requirements of the individual baby. These products do not carry laity directions on the trade packages. Such directions on a package of food is the unsurmountable wall that differentiates between individual infant feeding and indiscriminate infant feeding. The physician may prescribe Mead's products with perfect confidence.

Mead's line of Infant Diet Materials consist of Mead's Dextri-Maltose (Dextrine and Maltose), Barley Flour, Dry Malt Soup Stock, Casec (Calcium Caseinate—for preparing Protein Milk), Arrowroot Flour and Cerena, all of which are supplied without any directions on the packages. Over and beyond the gratifying results obtained from Mead's products, the physician is given unlimited scope to his own creative talents, hence there will be a greater number of better babies in his immediate neighborhood. The mother who uses Mead's Diet Materials at the direction of her physician is disposed to place credit for the welfare of her baby where credit belongs, i. e., to the doctor. The Mead Johnson policy means the realization of an ethical ideal.

Interesting publications on Infant Feeding, prepared by Mead Johnson Company are well worth writing for. Letters addressed to them will receive personal attention from their Scientific Department.

THE JOURNAL
IS
YOUR FORUM—
WE INVITE YOU
TO UTILIZE
IT FOR THE
EXPRESSION OF
YOUR VIEWS
ON
MEDICAL SUBJECTS

The Journal
OF THE
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Editorials

INTELLIGENT THERAPY

As investigations and research revealed demonstrable proofs of what actually occurred when definite symptoms manifested themselves and physiological functions became deranged, therapeutic nihilism resulted. Empiric exhibition of drugs was proven fallacious. Intelligent therapy ensued. Therapeutics became more scientific and established definite basic principles. Experiments established reliable proof of physiological effect and action. Many there are, who still have and give their favorite many drug prescriptions, or, who empirically exhibit certain drugs in certain conditions. To do so is either a habit to which they cling, or, it is outright ignorance and drug peddling.

We believe in drugs. We believe in therapeutic effect. We believe that morbid processes may be prevented, aborted or overcome by intelligent therapy. We do not believe in set formulas, combinations or empiric exhibition of drugs whose use is known to be ineffectual and often dangerous.

Therapy does not consist solely of the writing of a prescription for a "shot-gun mixture," some elixir, pill or pharmaceutical combination just because it seemed to produce results in a few cases or because some advertising literature represents a preparation to be the indicated and curative remedy in certain forms of disease. That is not and should not be the basis of therapy or prescribing. Intelligent therapy is based on: first, a thorough knowledge of the pharmacological properties of a drug; second, its physiological action in given doses and, third, its exhibition in such dosage and frequency as is known to influence physiological functions—to produce results. This implies the necessity of an ability to recognize pathological and physiological changes that are present in the ailment you are called to treat. It is upon these principles that intelligent therapy rests.

We feel, in fact we are quite certain, that the thought given to intelligent therapy today is far less than it should be. We incline to therapeutic nihilism and still prescribe drugs. Our prescriptions are not formulated because of their therapeutic indication or for their physiological effect. They are written largely as routine habit or because some drug representative has stated that his preparation accomplishes wonderful results. Frequently we prescribe simply because we feel something should be administered. In doing so we fail miserably and it is needless to say that we are not meeting up to the standards of intelligent therapy.

The principles of therapeutics have undergone many changes in the past few years—marvelous changes since the days we sat in the class room and listened to the lectures on the subject. Theories have been disproven and new tenets have been established. That which was once held as physiological effect has now been discarded. We know strychnine is not a cardiac stimulant—why give it for that purpose? Digitalis in small doses, we know is far less effective than the large dose given to full effect and repeated to maintain that effect. Aconite and veratrum are not to be administered routinely in fevers. When indicated they should be given to effect and repeated but a few times. Aconite or veratrum never cured a fever—removal of the cause is the proper course. The salines are useful for a quick catharsis, they are positively harmful when employed routinely and for indefinite

periods. Apomorphine's only value consists in its emetic properties—why give it as an expectorant? Of the host of cough sedatives codiene is the most potent—why use heroin or other alleged sedatives? Calomel is a direct kidney irritant and should not be exhibited when renal disease exists. Excessive purging is always fraught with danger. Proper diets will do more to overcome constipation than all the pills, oils, cascaras and physics on the market. When pain is severe, and we are certain of the etiology, morphine alone gives relief until the cause is removed. Opiates should never be given for hypnotic purposes.

We might continue at length but to do so is not the purpose of this editorial. We recognize that many will disagree with what we have said. Cases will be cited in contention. Incidents will be reported—they are all remanents of the days of empiricism and are not consistent with modern intelligent therapy. Therapy to be intelligent demands equal study and time as does diagnosis and pathology. The days of pill peddling and drug dosing are past. Be an intelligent therapist, not a formula-ite.

THE SIGNIFICANCE OF SPIRITUALISM.

Dr. Clarence O. Cheney in the July issue of Mental Hygiene sums up the significance of spiritualism as follows:

With the feeling that the truth of spiritualistic belief has not been proven and that the belief springs from a need that is not satisfied in this world, the question arises. "What had best be our attitude toward it?" Our answer is that this depends upon the individual. Just as we would not believe in trying to take away from an individual a religious belief that was a comfort to him and made life more tolerable and at the same time made him of more benefit and comfort to others, so we would not believe in trying to take away spiritualistic belief that had the same effects. Any person has a right to believe what makes him a better member of society. On the other hand, how often do we see the bad effects of spiritualistic belief absorbing the individual, cutting him off from interest in or contact with others, making him unproductive and not only of no help to others but a burden to them. Here the situation is different and certainly it is incumbent upon us to attempt to direct such unhealthy activities, into more productive channels. The possibility of redirection in such persons obviously depends upon the strength of the wish to believe, the depth of fixation of the belief, the ability to obtain new outlets, and possibly the personality of the redirector.

Many of us are not deeply concerned from day to day with the question of our own survival after death or with the question of whether or not the dead can or do communicate with us. We are more concerned with the life of reality about us, in our contact with other persons, with our aim to help to make life happier and more complete for those with whom we come in contact, and in so doing we are deriving a satisfaction and happiness ourselves that leaves little if any feeling of need for a more attractive world beyond. There is so much around us to be done that we seldom raise our eyes from this earth and gaze longingly toward that infinite heaven which to the spiritualists and to many others is the only place where there is an opportunity to live out one's destiny in completeness. Although all is not joy and happiness here, we are trying and striving to make this earth a better place to live in and thereby fill our lives still more completely. If only the individuals with eyes and ears so intent upon another world could bring their eyes back to earth and live in reality, they would very likely find that the world here and now in which they seem to find only misery and unhappiness, is not such a bad place after all.

THE ETHICS OF RESPECT

There are two kinds of respect. The respect that you give and the respect you receive.

Respect for a professional man is the same as a soldier's respect for the uniform of his officer. He salutes the authority of the officer, not his person. The public respects, or should respect, the profession through the man who is engaged in that profession.

"Hello, Doc, you old pill roller, how are you?"

This salutation in a public elevator in the presence of two or three ladies, one or more of whom may be the doctor's patients, is not what can be called either profitable or ethical respect for the doctor or his profession. Yet, how often do we not tolerate this bombastic rowdery and bear with it in the name of good fellowship.

The doctor who is thus addressed is himself to blame. Somehow he has himself lost the connection of professional respect. He has not educated his friend or friends to

recognize that fine line of demarkation which distinguishes Dr. Doe in public and Dr. Doe in a poker game.

Lately there has been a marked drifting away from the respect to which a physician is entitled from the public. In the operating room and between ourselves we are as quick to resent an ethical faus paux as an officer is quick to censure a private who is a bit tardy with his right hand. But we condone it among our "customers." "Pill roller" is mild compared with what we sometimes are called by those whose names are often listed among the "outstanding accounts."

A physician who often chafed under the public familiarity of one of his patients, happened, during his absence to deliver his wife of twins. The father-to-be had asked him to wire him in the event the accouchment took place before his return. Thinking, by a formal statement, without congratulations or well wishes to impress his friend and patient with the seriousness of the event, he wired:

"After a night of intermittent labor, your wife gave birth to twins. All are doing well."

The operators seemed to have grasped the first part of the message but the strain evidently broke them down at the last sentence, which was read by the recipient:

"All have gone to hell."

"What do you mean by jesting in such a serious matter," said the irate parent to the doctor when he arrived upon the scene.

The physician dumbfounded, read the message. Quickwitted himself, he replied:

"I mean no more offense than you do when you twit me about my pills."

These heroic measures may not be necessary to create respect, but it depends largely upon the man himself if he is respected. Being a physician is a serious matter. Life is a serious business. If you can't play poker or golf with your associates and remain a physician, either quit the profession or quit playing. A popular, good-fellow doctor is seldom either a professional or a financial success. When it comes to the good-fellow's life or that of his wife and children, he is quite likely to leave his sporting friend holding the anesthesia bottle. The real work is done by the serious thinking and less jovial man whose reputation for somber and sober work is established.

This doesn't mean that a physician is obliged to live his life in sack-cloth and ashes, or that he must assume a moribund, woebegone attitude, either to his work or his patients. Cheerfulness is now an established requisite of the profession. But to succeed, no doctor can permit himself to be hailed as "good old Doc," on the street corner, even though he may be a good loser at poker, or able to play a fairly good game of golf.

DEFECTIVE INDIVIDUALS

The Committee of the American Engineering Society finds that the annual industrial or economic loss in the United States from preventable disease and death exceeds $3,000,000,000. This is the figure that is creating the demand for some form of state medicine or some other measure that will diminish that loss. The same committee is authority for the statement that 42,000,000 persons lost 350,000,000 days from illness and disease and non-industrial accidents last year. The committee further announces that it did not attempt to solve the problem or that it is satisfied with the present agitation for state medicine. The loss can be controlled and largely removed by properly organized and administered system of preventative medicine. That is the problem and nothing will save the profession in its present attitude or alleged independence unless it becomes aggressively active and co-operates with these business organizations in the solution that must be formulated. It is imperative that our ideals must be expanded from the individualistic type of human service to a national size. We are bound to be over-ridden unless we do.

Repeatedly have we remarked that such steps must be taken, such attitude assumed and that in place of objection we must assume a leadership and a direction or else be prepared to submit to such new regulations as industry may establish in their pursuit of a plan that will conserve this loss of man power and money in the industrial world. Our relationship to the problem of public health cannot be a passive one.

A true picture of our national health problem may be in part gleaned from the following figures from the office of the surgeon-general. These figures pertain to the drafted men for the army and we quote only those refering to this state:

Ratio of defects per 1,000 men was 467.20.

Ration of defects by disease was: Tuberculosis 22.09, Venereal 44.54, Cardio-vascular 50.30, Developmental 22.52 and Nervous-mental 14.48.

For the first six months of this year the state death rate in heart disease was 145.4

per 100,000 population, or a total of 2,776 cases.

The thoughtful consideration of these figures will demonstrate the need for the most intense concentration of our thought in the effort to seek a solution of our future course. We are submitting them for your deliberate reflection.

ORGANIZATIONAL WORK

Last month we commented editorially upon the work of the Society for the Prevention of Heart Disease. We injected the query as to whether the profession of Michigan was ready to undertake work along the lines indicated. We are now submitting the following communication from President Kay:

"I noted an editorial in the August issue on heart disease. I had been discussing this subject with some of the men and the possibility of the State Society doing some work along this line and was glad to note the editorial.

"We meet once a year for scientific work and the rest of the time pass it to George—in this case pass it to Fred. I mean as a body we do nothing but publish a Journal. I think it would be good for us individually and collectively if we, as a society, did some work as suggested in your editorial. What I have in mind is a heart disease or goitre census. The heart census would be of much more service to the people at the present time.

"We could ask the County Societies to take one meeting, say in the month of October to consider the heart, its infection and diseases and follow it with a questionaire, in which each member would give the number of cases in his clientele, the nature of the lesion, the number of years present, the origin and any other information that would make the returns of value. Why not?

"We do not need a new society for this purpose. The evidence that a society is alive is that it is doing something all the time and if our State Society could give to the country this subject worked out on as large a scale as the state of Michigan, the information would be of value in bringing to the notice of the people the necessity for measures to prevent the loss of time, sickness and death from the all too common diseases of the heart."

We of course agree with Dr. Kay in every detail. The question arises—who will undertake this work. The Journal, of course is eager to co-operate and the State Secretary will be glad to render every possible assistance. May we not have a discussion of this subject so that by the aid of the expressed opinions this work may be undertaken? Are you ready to "snap into it?"

HYSTERIA IN PUBLIC HEALTH LEGISLATION

We have taken the liberty to copy a portion of an editorial appearing in the August issue of the Illinois Medical Journal:

We are satisfied that the Sheppard-Towner Maternity Bill can be defeated in the Committee providing sufficient opposition is developed to overcome the propaganda of the long haired men, short haired women and the individuals in this country who are believers of the soviet form of government, the foundation schools of philanthropy, sociology and psychology whose proteges and graduates await translation into secretaries, assistant secretaries, social surveyors, sobstatisticians, psychologists, professional philanthopists with the uplift urge.

It is time for the people of this country to wake up and to arrest the hysteria in public health legislation which began with Compulsory Health Insurance of Germany, which was brought here by a Russian who never practiced medicine so far as can be learned, which movement was propagandized by the American Association for Labor Legislation and its affiliated organizations whose interlocking directorates are linked with the Rand School in New York and which was developed and exploited under such names as Health Centres, Community Centres, Maternity Centres, Medical Practice (re-registration) Acts, National Socialization of Medicine (public welfare department), etc. One can not get figs from thistles, neither can we expect constructive legislation to proceed from such a source.

FEE SCHEDULES

From time to time there has been discussion and comment in daily papers regarding fees charged by the profession for professional services. Just recently the authorities of John Hopkins Hospital came out with a statement that was given to the press setting forth what they considered to be proper fees for the services rendered by the staff of that institution. Insurance companies, corporations and civic authorities seek to dictate what they shall pay for services rendered to their wards, employees

or industrial risks. The subject is one that is of vital concern to the profession.

At the Bay City meeting, the House of Delegates directed that the President appoint a committee that will give this subject full consideration and to report its findings and recommendations at the next annual meeting. President Kay has appointed the following committee:

Chairman, George McKean, M. D., Detroit. Members, Doctors Peter Stewart, Royal Oak; J. D. Bruce, Saginaw; W. T. Dodge, Big Rapids; J. B. Jackson, Kalamazoo; F. B. Walker, Detroit; J. G. Manwaring, Flint; F. C. Warnshuis, Grand Rapids; H. N. Torey, Detroit.

We shall await with considerable interest the findings and recommendations of this committee. We sincerely hope that a clear pronouncement will be formulated and a definite policy outlined so that we may individually and collectively refute the criticisms and dictations of those who now seek to appraise professional services.

ACUTE POLIOMYELITIS IN DETROIT

During the month of July, 21 cases of this disease were reported in Detroit and six more were added to this number by August 15. While the situation was not deemed serious, the Detroit Department of Health thought it advisable to call the attention of the Detroit Medical Profession to this matter and to suggest certain points as to prevention and care of the patients in connection therewith.

The Department of Health made the following recommendations:

1. Isolate the patients under the care of a competent caretaker or nurse or remove to a hospital.
2. Isolate all cases of fever that can not be reasonably explained as due to some other ailment during the coming four weeks.
3. Collect properly all discharges from the nose and throat on cloths which should be boiled or burned. Disinfect all discharges from the bowels. Take proper care of the caretaker's hands with soap and hot water.
4. Isolate the patient for a period of at least three weeks from the date of onset and for one week after the fever has subsided.
5. Exclude flies and household pets from the room occupied by the patient during period of isolation.
6. Report the case promptly to the department.
7. The Department has in its employ an expert diagnostician who will be glad to confer with the attending physician when assistance is desired.

THE PREVENTION AND TREATMENT OF ENDEMIC GOITER

Marine and Kimball made a study somewhat recently of the pupils in the 5, 6, 7, 8 grades of the Cleveland Public Schools. They concluded that goiter may be prevented simply and cheaply in normal individuals merely by the feeding of two grams of sodium iodide daily for a period of two weeks, twice yearly. Of the 2,190 pupils taking this dose, only five developed an enlargement of the thyroid. Of the 2,305 pupils not taking this salt, 495 showed an enlargement of the gland. 1,183 pupils who showed a thyroid enlargement at the first examination, were treated with the drug and 773 of these presented a decreased enlargement at the second examination. 1,048 pupils with thyroid enlargement at the first examination were not treated and 145 of these were found to have a decrease in size of the gland at the second examination.

Marine and Kimball state that in the practical application of this treatment one must keep in mind the three periods when simple thyroid enlargements most commonly occur; fetal life, puberty, and pregnancy and that prevention of goiter in mother and fetus is as simple as for adolescence.

Editorial Comments

For a long time the discussion continued as to who owned the perscription that was written by the doctor—the druggist or the patient. Recently there has been considerable discussion as to who owns the X-ray plate or film that is made by the radiologist. The Radiological Society of North America has expressed its opinion in the following resolution: "That it is the sense and judgment of this society that all roentgenograms, plates, tracings or other record of examination are hereby declared to be the exclusive property of the radiologist who made them. The radiologist is hereby declared to be a consultant in all cases where he is called upon to examine patients. The radiologist shall not make known to patients, their relatives, friends or guardians, any of his findings or conclusions, nor shall he deliver to them any of the plates, negatives, films or prints unless expressly requested to do so by the physician who referred the patient for examination. It shall be unethical to advertise by circularizing in medical or lay press with price list or fees, descriptions or illustrations of office apparatus or facilities, or to advertise by displaying signs stating the medical specialty; or in public press, telephone directories which are published for general use."

That, in condensed form, is the expression of the

above mentioned national organization and to all of which a hearty amen can be said. All too frequently do we have a patient coming in carrying his own plates or films taken by a radiologist and given to the patient. Anybody, (we admit there are exceptions,) can go into a doctor's office equipped with an X-ray and have an examination made and secure the plates for simply paying the fee. An attorney can send a client to a radiologist and secure a plate to demonstrate to the jury. Therefore we hope that all radiologists or doctors who have X-ray outfits will positively decline to make exposures and examinations unless the case is one that is referred by a physician or surgeon. Much more might be said in regard to this practice, however, we reserve further comments for future discussion.

Some time ago a certain member let out the "holler" that we were posing as an all-wise director of medical affairs and that by these comments we were seeking to dictate the activities of individuals and of the entire profession. Evidently we must have touched upon a tender spot. The purpose sought by these comments is to acquaint the members with expressions that reach us through numerous avenues and which reflect individual as well as public opinion. This in order that we may know how others view us and if the criticism is just to then correct our errors, or, if approval is expressed to continue along the lines that are being pursued. These opinions are by no means personal ones—if they were we would be more explicit in some of these comments for there are times when it is difficult to restrain personal sentiments. It must be remembered that an editor represents constituents and does not inject personal inclinations in a publication, especially one that is the official organ of a society. We are seeking only to state how others view us so that we may be governed accordingly. Personally we have an extreme objection to everything that bears a taint of "kaiserism" or "bossism." We hope to remain free from all aspirations along that line. Nevertheless we enjoy these criticisms because it affords an opportunity to announce a policy. May we have more of them because in the end the critic will learn that things are not always as he sees them from his point of view.

WHEREAS, a careful consideration of Compulsory Health Insurance as developed in the old world, particularly in Germany and Great Britain has shown no advantages either to workers or physician over the methods which it supplanted, and,

WHEREAS, The most careful study of the subject brings out the fact of the almost complete identity of the old cheap fraternity insurance and contract practice, which has proven so vicious in practice, both to doctor and patient plus the burdens of increased taxation due to necessarily cumbersome details of its administration, and,

WHEREAS, the proponents of this proposed legislation have neither proven its needs among the people it professes to serve nor a demand from such people for such disposition of their medical ills, and,

WHEREAS, we believe that such legislation, destroying as it does individuality and initiative in our profession, ultimately would develop the very antithesis of the ideals we have been striving for,

BE IT RESOLVED, that the Saginaw County Medical Society unqualifiedly oppose as vicious and un-American the proposed legislation that comes to us under the title of "An Act to Provide Compulsory Health Insurance for the State of Michigan" and pledge ourselves to assist in every legitimate way the forces in our profession who stand for those ideals in medicine for which succeeding generations of doctors have fought.

A. E. Leitch, Secretary.

Of ccurse, we may be a little more prejudiced than the average individual but even then we contend that we are all to forgetful of principles. A few years ago we were most vituperative in our denouncing Germans and all that had a taint of Germany. Since the armistice we note that the sentiments then expressed have waned to almost nothing. In fact we are falling back into the old habit track and are commencing to quote: "When I was in Germany, Prof. Hoch, etc. etc.," and I dare say some have again removed from storage their certificates of post-graduate work in Germany and hung them up on their walls. And now here comes along an Ohio firm which advertises in the Journal of the A. M. A., "Daily shipments of surgical instruments and supplies from Germany." That is flaunting the red flag too strongly, and we cannot help but rise up and holler. We plead that we remain true to all that we declared a few years go, and firmly continue to boycott all that smells of Germany for a few more years, at least—anyhow until some peace terms have been agreed upon. Do not fall for this propaganda so readily.

The bursting into print in local papers to report some wonderful operation, diagnostic ability or exceptional skill by individual doctors has long since been tabooed. No reputable man would permit such a thing to occur and when such an article does occasionally appear it bears every ear mark that the interview eminates from the doctor. There is being manifested a growing tendency on the part of hospitals to indulge in and to permit publicity of this type. The press reports from time to time some wonderful operation, some exceptional case, some startling discovery that has occurred at this or that hospital. Of course the names of the doctors concerned are carefully omitted and the report indicates that the result or the miracle was achieved by members of the faculty or staff. It is the same cheap form of advertising under a new disguise. We suggest that steps be taken by hospital staffs to discontinue this form of bidding for cases.

Claim adjusters for corporations and insurance companies are employing the method of holding up payment of bills for medical services. They frequently delay payment for four or five months after a statement has been rendered. In doing so they are using your money without paying interest. There is no excuse for such practice. Our suggestion is that when you render a bill and if payment is not forthcoming within thirty days that you write a letter to the president of the company that employed the person whom you attended and put it up to him as to whether he approves such methods. As a rule the claim adjuster will receive rather curt instructions to promptly voucher your bill. Of course if you are willing to let the company use your money and you do not want prompt payment for your services, why let them continue to impose upon you without voicing objection.

Much has been written and said regarding diphtheria and the use of antitoxin. We are informed

that our state has an unusually high death rate from this disease. We know that antitoxin is a sure and effective curative agent, provided it is administered early and in sufficient dosage. The trouble seems to be that many of us do not know the proper dosage of antitoxin and believe that one dose of five or ten thousand units is sufficient. What is needed is greater care in administration of antitoxin. It is not to be given by the dose, but rather to therapeutical effect. Ten thousand units as an initial dose and repeated in six or twelve hours without waiting for laboratory confirmation of the smear will do much to reduce the mortallity rate. And if necessary, keep on giving the antitoxin until results are obtained.

We are frequently in receipt of communications from members asking us to refer to our organization's attorneys legal problems and civil actions. Again we are requested to instruct our attorneys to commence action against certain illegal practitioners. We are unable to comply with these requests because the firm of attorneys that is retained by the society is employed solely for the defense of our members in legal matters pertaining to mal-practice suits. They are retained only for that type of legal work. Consequently we cannot comply with the requests that reach us for services in other legal matters. We are making this announcement for the benefit of all our members.

For several months we have been seeking to arouse more than passing interest in the Journal. We have sought to make each member feel that this is his publication and that he is an associate editor. Further, that it is a medium wherein he may voice his opinions and sentiments. The result has not been very encouraging. This past month, however, we have received two communications that indicate that the effort has born some fruit. Possibly in due time more evidence will be in appearance. So again we reiterate that the Journal is your forum and welcomes your communications—utilize it as such.

Again new advertising copy appears in our advertising pages. We call this to our readers attention to once more impress them with the fact that it is only by means of the revenue derived from advertising contracts that the publication of the Journal is possible. To secure and hold these advertisers it is necessary that they realize upon their advertisements. They will not and cannot unless our members subscribe their patronage. Please recognize this fact and deal whenever possible with these advertisers.

There is a marked distinction between practicing a specialty or some branch of medicine and scientific practice. In the former the dollar is the object of greatest concern. In the latter a careful examination is made, all the symptoms are considered and the treatment is directed along the lines of curative results. Of course we all must make a living and lay up a reserve fund but let us not stoop to trafficing and getting all the traffic will yield with little or no consideration of the end result.

We have noticed that at almost stated intervals the publications of other state societies find it necessary to exhort and plead with their readers to patronize their advertisers. The same argument is also made of the need of maintaining interest in their county societies. The question naturally arises—why does the profession continually need a prod to maintain activity in their own organization that is concerned solely and entirely with the doctor's personal interest? Will not some one rise up and venture an explanation?

Relief in part is fairly certain in the matter of federal and income taxation. We regret that our national organization has not been able to appear before congress and secure the removal of the war tax on X-ray plates and films and some of the other necessary equipment for our offices and hospitals. It is also about time that a concerted effort be directed to secure the amendment of the Harrison act and the reduction of that license fee.

County Society News

HILLSDALE COUNTY

The Hillsdale County Medical Society met at the Country club, Hillsdale, Tuesday, July 26, for the regular quarterly meeting, called to order by President Bell. Dr. Sawyer introduced the speaker of the day, Dr. Hugh Cabot of the U. of M.

Dr. Cabot gave a most interesting and illuminating address on "Tuberculosis of the Kidney." Some of the more important points were: The comparative frequency of this lesion though often overlooked; disease may be present for years with few or no symptoms aside from a little pus in the urine; practically all cases are unilateral in the early stages, hence its frequent curability.

Dr. Cabot condemned the indiscriminate use of the cystoscope, as a serious operation liable in many cases to spread the disease and do harm.

He contended that a single cystoscopy should usually be all that is needed in a given case and that after the presence of tuberculosis has been demonstrated. This can be done by the use of the high power centrifuge and microscope after the pus, casto and other debris have been removed by the ordinary centrifuge. After this has been done, the cystoscope comes in use to determine the seat and extent of the disease.

Presence of disease in a kidney usually shown by the ureter on that side and if found, should be let alone at the cystoscopy and attention given to determining the cerupitency of the other kidney. Nephrictomy may be followed by miliary tuberculosis even in promising cases. Tuberculous disease of the bladder of renal origin, usually curable if the offending kidney can be removed.

Dr. Cabot's address was followed with the closest attention and at its close many questions were asked by Doctors Sawyer, Green, Frankhouser, Miller and others and answered by Dr. Cabot. Owing to the lateness of the hour, Dr. Frankhouser's paper, "The Passing of the Family Physician," was postponed until the October meeting.

After adjournment the members present enjoyed an excellent luncheon at the Country club and departed feeling that it had been an afternoon well spent. D. W. Fenton, Secretary.

GENESEE COUNTY

The Board of Managers of Hurley Hospital, Flint, have recently decided to create a hospital staff system, in order to have the hospital conform to the minimum standard set by the American College of Surgeons for Class A hospitals. The medical board appointed have been working on rules and regulations for hospital procedure and have perfected a record system. At a meeting of

the Genesee County Medical Society held on Aug. 9, the proposed plans were presented to the profession for their criticism and approval. The staff will meet once a month when a summary of the previous months' work will be presented and interesting cases discussed. No member of the staff is to practice the "division of fees" in any manner. Standard methods for the routine work of the hospital have been formulated, and diet lists prepared. It is believed that a high standard of professional work will be maintained at the hospital, and that the members of the staff will co-operate in a happy manner.

W. H. Marshall, Secretary.

NEWAYGO COUNTY

The Newaygo County Medical Society was right royally entertained at the Cottage Hotel at Diamond Lake, July 14. Dr. and Mrs. P. T. Waters of White Cloud, being the host and hostess.

After the regular business meeting, the president introduced Dr. Wm. Northrup of Grand Rapids, who gave a very definite and instructive talk on Focal Infections. Discussions by Doctors Geerling, Branch and Long.

Dr. J. W. Righterink also spoke on Focal Infections, of the teeth in particular, dwelling on the value of very thorough examination before extraction.

After tendering our guests a vote of thanks, the Society was invited by Dr. and Mrs. Waters to join them in a fish and chicken dinner and received no regrets or refusals.

W. H. Barnum, Secretary.

Deaths

Doctor Marshall L. Cushman, aged 38, of Lansing, Mich., died at the Millet Sanitarium, East Bridgewater, Mass., on July 14, following several months illness from tuberculosis.

Dr. Cushman graduated from the University of Michigan, in 1906 and studied in Berlin and Vienna for one year. He then became instructor in the Department of Oto-laryngology, University of Michigan, later practicing in Lansing, limiting himself to ear, nose and throat surgery. During the World war he served as Captain of a Medical corps in France. He was a Fellow of the American College of Surgery and Michigan State Medical Society and American Medical Association.

Doctor George F. Clark was born in 1868 and died suddenly in Saginaw, Aug. 16. He graduated from the Homeopathic Department of the University of Michigan in 1893. He was Health Officer of Saginaw at the time of his death. He is survived by his widow who is a daughter of the late Ex-Congressman Frank W. Wheeler.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Dr. and Mrs. H. W. Yates and family of Detroit spent their summer at Cherry Beach.

Dr. and Mrs. J. I. Murray and daughttr of Detroit spent the month of August at the Elgin House, Muskoka Lakes, Ontario.

Dr. and Mrs. George C. Caron and daughter of Detroit spent their summer vacation at Burt Lake.

Dr. G. C. Penberthy of Detroit was married to Miss Elizabeth Wardner of Boston, July 16.

Dr. and Mrs. E. W. Haass of Detroit sailed July 16 for a two months stay in Europe.

Dr. R. W. Gillman of Detroit spent the last two weeks of July at Siasconst, Mass.

Dr. G. B. Lowrie of Detroit spent the last two weeks in July in the Georgian Bay region.

Dr. and Mrs. Thomas Brennan of Detroit announced the birth of a daughter, Patricia, July 8.

The family of Dr. S. E. Sanderson of Detroit spent the summer at Les Cheneaux.

Dr. A. C. Drouillard was recently re-elected a member of the Wyandotte School Board.

Dr. and Mrs. Albert H. Krohn of Detroit spent their summer at Ottawa Beach.

A son was born to Dr. and Mrs. Fred Buesser of Detroit the first part of June.

Dr. F. C. Kidner of Detroit spent part of August at Lake Placid.

A son, (George Kanter) was born July 25, to Dr. and Mrs. George J. Reberdy of Detroit.

Dr. C. B. Lundy was elected the latter part of July, Vice President of the Detroit Amateur Athletic Association.

The Ladies Auxiliary of the Michigan Branch of the Ancient Order of Hibernians, elected Dr. W. B. Harm of Detroit, Medical Examiner, July 26.

Dr. Charles G. Jennings left Detroit July 18, for an extensive canoe trip in Northern Canadian streams.

Doctors W. C. Lawrence, E. G. Martin and A. B. Wickham were recently elected resident members of the Detroit Athletic club.

Dr. and Mrs. C. G. Burgess of Detroit spent their summer vacation on a motor trip through New York state and New England.

Dr. Frank J. MacDonnell of Detroit spent his vacation traveling through the east, stopping at Halifax, Boston, New York and Atlantic City.

Dr. and Mrs. George H. Palmerlee returned to Detroit the middle of July from a month's motor trip through New England, New York and Pennsylvania.

Dr. I. L. Polozker of Detroit was appointed July 23, by Gov. Groesbeck, a member of the In-

stitutional Commission of the new Department of Public Welfare.

Dr. and Mrs. George H. Voelkner of Detroit lived aboard their yacht, Arbutus, the most of the summer.

Dr. V. L. Tupper of Bay City was elected somewhat recently Chief of the Staff of Mercy Hospital of that city.

Dr. Walter L. Finton of Jackson, has been appointed Chief Surgeon of the Consumers Power Company.

According to Dr. G. T. Palmer of the Detroit Department of Health, Detroit had the highest birth rate of any city in this country for the first six months of 1921.

Dr. P. O. Wagener, who practiced medicine in Harbor Beach, Mich., for 40 years, died July 30. Mrs. Wagener offers the practice, books, instruments and drugs for sale.

Dr. and Mrs. E. G. Martin and family of Detroit spent the month of August on the shores of Lake Michigan, north of the Little Traverse Bay region.

Doctors G. H. McMahon, G. J. Reberdy and Irving Condit left Detroit the middle of August for a 10-day fishing trip in the Georgian Bay region.

Dr. Walter P. Manton of Detroit was elected vice president of the American Gynecological Society at its annual meeting held in Swampscott, Mass., July 2-4.

Dr. George M. Waldeck of Detroit has removed his offices to 1001-1007 David Whitney building. His practice is limited to diseases of the eye, ear, nose and throat.

Dr. W. R. Ballard and Dr. William Kerr, both of Bay City, left the middle of July for a three to four weeks' camping trip to the Muskoka Lakes.

Dr. and Mrs. David Stuart Wilson of Detroit took a motor trip in July through the Adirondacks and the White Mountains. They returned by the way of New York city and the Catskill mountains.

Dr. John E. Weeks of New York city, presented the University of Michigan with $10,000 in June. The income from this is to be used for a research scholarship in ophthalmology, either undergraduate or graduate.

The Ninth Annual Session of the Mississippi Valley Conference on Tuberculosis will be held at Columbus, Ohio, Sept. 12, 13, 14. Dr. E. B. Pierce of Howell is First Vice President and Dr. J. S. Pritchard of Battle Creek is on the Advisory Council.

The following members have been appointed to the Entertainment Committee of the Wayne County Medical Society for 1921-1922 by the President, Dr. James E. Davis—Drs. H. W. Yates, Chairman; C. D. Brooks, H. W. Peirce, E. W. Caster, Ray Conner, F. L. Honhart and B. H. Larsson.

Dr. J. F. McGlaughlin of Wyandotte was elected President and Dr. W. B. Harm of Detroit was elected Medical Examiner of the Michigan Branch of the Ancient Order of Hibernians at their annual meeting, held in Detroit, July 26.

Dr. Frank L. Newman left Detroit July 14. He first visited Mr. Percy Dwight in the Berkshires and the first of August he joined Mr. J. B. Ford in his camp at McGregor Bay. The doctor returned to Detroit Sept. 1.

Married—Dr. Louis W. Toles and Mrs. Maude M. Brown, both of Lansing, July 30. After an extended sojourn in New York and other eastern cities, will be at home Dec. 1 at 530 Capital Ave., South Lansing, Mich.

The President of the Wayne County Medical Society has appointed the following Legislative Committee for 1921-1922—Drs. H. A. Luce, chairman; G. E. Frothingham, D. M. Graham, C. H. Oakman, H. W. Hewitt and Wadsworth Warren.

Birth certificates will be sent to every baby in the city of Detroit, born on or after July 1. They are made out by the Detroit Department of Health and are in the form of an official welcome to Detroit.

Dr. Harold F. Ohrt wishes to announce that he has opened his office suite, 422 McKerchey building, 2631 Woodward Ave., Detroit, Mich. Limiting his practice to the specialty of eye, ear, nose and throat, having obtained his training in New York city, the eye work under Dr. Knapp and the other work from the various hospitals in that city.

Dr. George H. Ramsey of Detroit has been appointed by Dr. R. M. Olin, a deputy in the State Department of Health. He will have charge of the work of treating tubercular patients in state institutions and will superintend the proposed tubercular hospital for prisoners. After leaving the army, Dr. Ramsey has been superintendent of the tubercular pavalion at the Herman Kiefer Hospital, Detroit.

The formal opening of the new Urelogical Unit of Grace Hospital, Detroit, was held July 1. This unit includes a ward of 16 beds, private rooms, a laboratory, and a fully equipped operating suite for diagnosis and surgical treatment of all diseases of the male and female genite-urinary tract. The service is under the direction of Dr. H. W. Plaggemever, Chief of the Department of Urology of Grace Hospital.

The Officers of the Medical Staff of tht Children's Free Hospital, Detroit, for 1921 are, Chairman, Dr. F. C. Kidner; Vice-Chairman, Dr. B. R. Hoobler, and Secretary, Dr. H. L. Begle. The Director of the Medical Department is Dr. B. R. Hoobler, of the Surgical Department, Dr. G. C. Penberthy; of the Department of Orthopedic Surgery, Dr. F. C. Kidner; of the Department of Ophthalmology, Dr. H. L. Begle; of the Department of Otology, Dr. J. S. Wendell; of the Department of Laryngology, Dr. H. L. Simpson; of

the Department of Neurology, Dr. H. A. Reye, and of the Laboratory Department, Dr. E. R. Witwer.

Dr. George K. Pratt, for a number of years nerve specialist in Flint, has left for Boston to assume the duties of medical director of the Massachusetts Mental Hygiene Society. His work will be largely organization and executive, and devoted chiefly to furthering public knowledge of nervous and mental disorders and in establishing psychopathic clinics throughout the state.

Dr. Pratt came to Flint six years ago as an assistant physician to Oak Grove hospital, under Dr. C. B. Burr. In July, 1917, he received a commission in the department of nervous and mental diseases of the army medical corps and experienced two years of service both in home camps and in France. Following his discharge he returned to Oak Grove and remained with that institution until its close in May, 1920. Since then he has devoted his time to private neuro-psychiatric practice in Flint, aiding considerably in the work of the city health department.

The new post is especially desirable, carrying as it does, associations with some of the country's leading alienists, and Dr. Pratt expects to maintain close liaison with the National Committee for Mental Hygiene in New York.

Dr. and Mrs. Emil Amberg of Detroit spent their summer vacation at Lake Placid.

Dr. H. M. Rich of Detroit spent two weeks in August on the Muskoka Lakes.

Dr. and Mrs. S. H. Knight of Detroit motored through the New England States in August.

A daughter of Dr. and Mrs. F. N. Blanchard of Detroit died during the early part of August.

Dr. and Mrs. Arthur D. Holmes and family left Detroit the middle of August for Bretton Woods, N. H., where they spent several weeks.

Dr. and Mrs. R. M. McKean of Detroit announced the birth of a daughter, Ellen Jane, August 5.

The Advisory Council of Health held their summer meeting at Houghton August 16, 17 and 18. Doctors Kiefer, Gowdy, Slemons and Turner, Judge Carr and Commissioner Olin attended this meeting.

Dr. and Mrs. Guy L. Connor were the guests of Dr. and Mrs. Guy L. Kiefer at their summer cottage, Mackinaw Point, the first half of August.

Lieut. A. R. MacMillan, son of Dr. and Mrs. J. A. MacMillan of Detroit, was married Aug. 29, to Miss Margaret McGregor of Detroit.

Dr. H. N. Torrey of Detroit left the last of August for a hunting trip in Alaska.

Among the charter members of the Beach Grove Country Club, Walkerville, Ontario, are the following Detroit physicians: Doctors W. D. Barrett, W. R. Clinton, J. J. Corbett, E. S. Crump, E. J. Durocher, J. E. Elliott, Frank MacKenzie, Angus McLean, T. F. Mullen, H. H. Sanderson and W. A. Spitzley. Dr. H. H. Sanderson is one of the directors of this club.

A hundred bed addition to the Herman Kiefer Hospital, Detroit, will be started this fall. In the present buildings, 340 beds are devoted to contagious diseases, 205 to tuberculosis, and 60 to maternity cases.

Dr. and Mrs. Joseph Rottenberg of Detroit announced the birth of a daughter, Kalmayne, Aug. 2.

Plans for the organization of a school for public health in Harvard University with the aid of an initial gift of $1,785,000 by the Rockefeller Foundation, were announced Aug. 21, by the University and the Foundation. The new school will provide opportunities for research, will unify existing courses and will offer new or extended teaching facilities in public health administration, vital statistics, immunity, bacteriology, medical zoology, physiological hygiene and communicable diseases. The cost of maintenance and development of the school will be met from endowment funds in part set aside by the University and in part contributed by the Foundation. The arrangement also provides for further gifts if the school seems to demand it, to any amount which shall not exceed $500,000.

Dr. and Mrs. L. F. C. Wendt of Detroit spent two weeks in August at Harbor Springs.

Peking Union Medical College, erected by the China Medical Board of the Rockefeller Foundation, was opened Sept. 5, 1921. The following Americans were present; Mr. John D. Rockefeller, Dr. George E. Vincent and Dr. William H. Welch.

The Southwest and Missouri Valley Medical Association will hold a joint meeting Oct. 25-28, in Mansas City, Mo.

On Aug. 17, the Board of Trustees of the University of Pennsylvania granted Gen. Leonard Wood leave of absence from scholastic duties until Sept. 1. This action was taken at the request of Secretary of War Weeks, to release the General from his promise to become Provost of the University of Pennsylvania so that he might take charge of the government's affairs in the Philippines.

Dr. Charles E. Humiston, president of the Illinois State Medical Society, appeared July 18 before the Committee on Interstate and Foreign Commerce at Washington, D. C., and gave voice to strong objections to the Sheppard-Towner Maternity bill.

The Illinois State Medical Society at its last annual meeting passed resolutions condemning the Sheppard-Towner Maternity Bill as a paternalistic and pernicious form of attempted medical legislation.

The American Public Health Association announces four phases of its semi-centennial celebrations to be held in New York city, Nov. 8-18, 1921:

(a) The Scientific Sessions will be held Nov. 14-18. There will be programs of the following sections: Laboratory, Vital Statistics, Public Health Administration, Sanitary Engineering, Industrial Hygiene, Food and Drugs. There will also

be special programs on Child Hygiene and Health Education and Publicity.

(b) Health Institute, Nov. 8-12. During the week preceding the convention proper there will be organized demonstrations of the various types of public health activity in New York and environs: Health Department bureaus, laboratories, health centers. clinics, hospitals, etc.

The purpose will be to show health functions in actual operation, especially those which may be duplicated in other cities. In one sense the Health Institute may be considered as a school of instruction in practical health administration.

(c) Dr. Stephen Smith, the founder and first president of the Association, who is now in his 99th year, will be the guest of honor at a banquet to celebrate his approaching centennial and the semi-centennial of the association.

(d) A Historical Jubilee Volume, "Fifty Years of Public Health," will be published about Oct. 1. There will be articles by seventeen authors, relating to the accomplishments and present status of each of the important branches of pulic health. While concentrating upon the pulic health of the last 50 years, the book will describe the earlier beginnings of public health in an introductory way, and may, therefore, be considered a general history of public health from the earliest days to the present

Detailed announcements, programs, and information concerning special railroad rates will appear in the American Journal of Public Health and the News Letter of the Association from time to time or may be had upon addressing the Association at 370 Seventh Avenue, New York City.

Book Reviews

THE ASSESSMENT OF PHYSICAL FITNESS: By Correlation of Vital Capacity and Certain Measurements of the Body. By Georges Dreyer, C. B. E., M. A., M. D., Fellow of Lincoln College, Professor of Pathology in the University of Oxford. In collaboration with George Fulford Hanson. With a foreword by Charles H. Mayo, M. D., Rochester, Minn. Cloth, pp. 128, with XXIV Tables. Price $3.50 net. New York, Paul B. Hoeber.

This is a book that should command the attention of all physicians who are interested in industrial medicine, actuaries of insurance companies, Public Health nurses and settlement workers, for the reason that unlike most books on the same lines, the author contends that the occupation of the individual plays a large part in his physical dimensions.

In the past, insurance companies have had hard-and-fast rules as to what the physical dimensions should be to make the applicant acceptable irrespective of his occupation, and the same remark applies to all those investigators of physical fitness who have followed the matter with more or less interest. Dr. Dreyer divides all workers into three classes and shows the differences in the physical measurements between Class A and Class B—men who have undergone prolonged physical training, or have an occupation which leads to muscular development, and men of the professional and business classes. Class C contains those who lead an extremely sedentary life, which it can readily be understood makes for a greater degree of under-development than would obtain among those of Class A or B. Hence the new note in a book on physical fitness and one that is inclusive of matters which have been overlooked by other authors, and on account of their neglect have given a one-sided account of the matter.

To quote Dr. Mayo who wrote the Foreword: "The importance of the physical fitness of man has been only partially appreciated in the estimate of prognosis by physicians in the examination of the sick and in the measurement of the lung capacity by examiners for insurance companies. Dr. Georges Dreyer has shown that the estimation of vital capacity is more than a mere test, that it indicates the tendency to health and resistance to disease, and that in a prognosis of life's duration it parallels very closely the results of a general examination."

That the theories advanced by Dr. Dreyer are sane cannot fail to be apparent at once to the physician who reads this book, and no doubt will not be long in attracting the attention of the actuaries of our various insurance companies. What with the Public Health Service and settlement workers already following the precepts laid down in this book and the strides made in industrial medicine in apportioning physical fitness on scientific lines, it will behoove all insurance companies to take into consideration, not lightly but with seriousness, the moment of a thorough understanding of the variations in physical measurements as these obtain normally in the man who does hard physical work, the man who does light physical work, and the man who leads a sedentary existence Only in this way will insurance companies meet the problem in a just manner as to who should be accepted and who should be refused.

GENERAL PATHOLOGY: An introduction to the study of medicine. Being a discussion of the development and nature of processes of disease. By Horst Oertel, Strathcona Professor of Pathology and Director of the Pathological Museum and Laboratories of McGill University and of the Royal Victoria Hospital, Montreal, Canada. Cloth, pp. 357, with illustrations. Price $5.00 net. New York, Paul B. Hoeber.

It is not overpraise to state that this work of Oertel's is one of the outstanding books of the day. Written in a style that is commendable and in the scientific spirit without which every book on the subject of pathology falls short of being in the first rank, it gives the reader a thorough interpretation of all the problems in pathology, some of which no doubt have perplexed him, on account of his limited knowledge, due to the fact that he has never been fortunate enough to acquire an illuminating book on the subject.

The subject of general pathology has too long been the bete noire among physicians in general, even among those who lay claim to being well versed in all subjects of Medicine. The reason for this is that most physicians—the majority—have for some unexplainable reason regarded the study of general pathology as too abstruse and too wearisome a subject to cope with, and have relegated, on account of this attitude, its interpretation to those men in the medical profession who are specialists in pathology.

While there are good reasons for this attitude, as regards a large number of books on general pathology, in the case of Oertel's work a front of this nature would be a detriment to the busy practitioner, for reasons which are too obvious to

state here in their entirety. But there are three reasons which should be mentioned here, why Oertel's work commends itself to the thousands of physicians throughout the country, and they are as follows: Pathological processes are regarded as expressions of physico-chemical laws; the great educational value which accrues from a study of the historic development of ideas and hence an understanding of current ideas; the visualization of possible pathological occurrences based on the anatomical conceptions of the subject.

Any book on general pathology that has reasons such as the three mentioned above, has an asset which should bespeak a wide circle of readers; and when added to these are a simplicity of presentation and clarity of thought that are evidenced on every page, it cannot be gainsaid, in all fairness to the author, that medical profession has a book at hand that must be considered.

DISEASES OF CHILDREN: Designed for the use of students and practitioners of medicine by Herman B. Sheffield, M. D., formerly instructor in diseases of children, New York Post-Graduate Medical School. 798 pages, 238 illustrations. Cloth, price $9.00. C. V. Mosby Co., St. Louis.

This new volume on diseases of children is compiled from the author's experience of nearly thirty years in the field of Pediatrics. It incorporates the latest methods in the theory and practice of the diseases of infancy and childhood and thus especially meets the needs of the general practitioner as well as the medical student. The book is divided into fourteen sections with classification differing somewhat from that of old text books, but made to conform to the modern conception of the causes of disease. For example, infant feeding is based upon the most recent studies of the digestibility of proteins, fats and carbohydrates.

An especially valuable chapter is that upon the examination of the patient. It will be of especial assistance in surmounting the difficulty of diagnosis in infants and older children. So, too, is the article on the large abdomen. A careful survey is presented of the most modern methods of laboratory diagnosis in order that the physician may be able to properly determine the condition of the patient whom he examines. The use of serums and vaccines is fully discussed and dwelt upon at length.

Under the chapter devoted to Materia Medica it is revealed that the author is a firm believer in certain drugs and discusses efficacious medication in a commendable manner. So, too, does he discuss Hydrotherapy, Massage and Organal therapy.

One might thus continue and devote some commendable comments to each section of the book which is covered in a thorough manner indicated in the above paragraphs. It is a text that is bound to be accorded a welcome reception. Further, it is a text that should be in the hands of the progressive physician who is desirous of fully meeting up to the responsibilities that rest upon those who are called to attend the infant or the child whose health has deviated from the normal.

PRACTICAL PSYCHOLOGY AND PSYCHIATRY: C. B. Burr, M. D., Flint, Mich. Fifth edition, revised and enlarged. F. A. Davis Co., Philadelphia.

It is many centuries since Plato (Dialogues) criticized the physicians of that period because they paid too much attention to the body and neglected the soul. The same criticism can be made today, but if every doctor were to read this practical elementary manual of 269 pages and apply its teachings, this stigma would soon be removed. This book is the product of a long and successful experience in the care of the insane. Dr. Burr's dignified, logical and entertaining style is not unknown to the physicians of Michigan. There is an entire absence of that pedantry which bores one on reading many otherwise good books on Psychiatry. The general principles of Psychology are discussed briefly and clearly to enable the reader to grasp the principles of Mental Diseases. A new chapter on "Symbolism in Sanity and in Insanity" is very entertaining and instructive. Definitions are simple and comprehensive. Well chosen case histories illustrate the types of cases most commonly seen. The chapters on nursing and general management of the insane show much thoughtful consideration of the patient's welfare. Drug therapy receives due attention and the extensive clinical experience of the author gives much weight to his therapeutic observations. The chapter on "The Prevention of Insanity" has in it much sound and wholesome philosphy as well as a keen criticism of the foibles of modern society that marks the distinguished ex-president of our State Medical Society as a keen observer of the philosophic and social tendencies of our times. W. H. M.

FOOD PRODUCTS, THEIR SOURCE, CHEMISTRY AND USE. E. H. S. Bailey, P. H. D. Second revised edition. Cloth, 550 pages. Price $2.50. P. Blakiston's Son & Co.

This is a most excellent volume and one that is filled with extremely valuable as well as interesting information and facts regarding the source of food products, their chemistry and their use. Greatly as the physician is concerned with the diet and nourishment of his patient, it seems to us that he will be able to advise far more intelligently if he has this work at his hand and has familiarized himself with its contents. It is a volume that we should like very much to see in the hands of every practitioner.

OPERATIVE SURGERY. J. Shelton Horsley, M. D., F. A. C. S. Cloth, 721 pages. C. V. Mosby Co., St. Louis. Price $10.00.

In this book the reader finds particular stress laid upon the preservation of physiological functions and the interpretation of biologic processes that follow operation. In bringing out this principle the author has been successful in the writing of a text book on operative surgery that incorporates many splendid features and essential details that are frequently overlooked whenever a surgical attack is made. It removes from the operative procedure mechanical details and raises the question as to how the surgeon may extirpate or correct existing pathology and at the same time restore or conserve physiological functions of the tissues and organs. Every surgeon can find much that will be suggestive and practical in his operative work if he but carefully studies the text of this volume.

For

Prophylaxis against Diphtheria

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE (Diphtheria Prophylactic) is a mixture of Diphtheria Toxin and Antitoxin prepared according to directions laid down by Von Behring, Park and others.

Indications for use:

1. For general prophylaxis against diphtheria in schools and communities, excluding immediate contacts.

2. For permanent immunity against infection for individuals not recently exposed.

3. In conjunction with a prophylactic dose of diphtheria antitoxin for those who are exposed to diphtheria and desire a longer protection than would result from antitoxin alone.

Contra-indications: (1) It should never be used as a treatment for diphtheria. (2) It should never be used as an immunizing agent for an individual recently exposed, unless a prophylactic dose of diphtheria antitoxin is given at the same time.

Diphtheria Toxin-Antitoxin Mixture (Diphtheria Prophylactic) is given in three subcutaneous injections of one cubic centimeter each, at intervals of about five days. It is supplied in cases of three 1-cc bulbs, without injecting attachment.

Parke, Davis & Company

The Secretary of the Society will please notify the State Secretary immediately of any errors or change in these offices.

COUNTY SOCIETIES

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IN

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Branch No._____ of The Michigan State Medical Society

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Original Articles

CLINICAL ASPECTS OF BLOOD PRESSURE*

JOHN A. MACGREGOR, M. D.
Chief of the Department of Medicine, Western University.
LONDON, ONT.

You have done me the honor of asking me to address you this evening and in accepting I am conscious of the obligation I have placed on myself. I hope that you will in your subsequent valued discussion generously supplement with your personal observations this presentation of my own opinions and conclusions as herein expressed, these being of course, subject to modification or correction as later experience necessitates.

I take it for granted that you will have a greater interest in the more practical consideration of blood pressure and I will therefore deal with it from the almost purely clinical aspect and only to such an extent as is possible in a limited time.

We mean by blood pressure the pressure which the blood exerts against the wall of its containing vessel, be it artery, capillary, vein or endocardium, but it is principally with the arterial pressure that the physician is concerned.

The maintenance of this pressure depends on a number of factors:

First—The force of the left ventricle.

Second—The recoil of the elastic tissue of the arterial wall.

Third—The peripheral resistance in the vessels exerted by the muscular coat under the influence of the vaso dilator and vaso constrictor systems of nerves, these in turn controlled by the vasomotor centre.

Fourth—The blood volume fluctuations which do not exert any marked influence as they are readily compensated for by the elasticity of the vessel and the vasomotor control.

Fifth—The viscosity of the blood possibly exerts an influence as yet undetermined.

The pressure in the artery synchronous with the ventricular systole is called the systolic pressure, that synchronous with the diastole, diastolic pressure, the difference between the two pulse pressure.

The use of the sphygmomanometer is the usual method of arriving at an estimation of this, but it is only an arbitrary method of arriving at it and one must not be misled by figures which have a tendency in any instance to convey an impression of accuracy which is far from fact in this case. One must not forget the value of the trained finger in obtaining information which is not educed by the various mechanical devices brought to our attention in more recent years, some of which are altogether unreliable. I refer principally to the manometer of the aneroid type, many of which when quite new show far more correct readings when checked up by a mercurial instrument and even when correct when new, require frequent subsequent verification.

Just here I want to call attention to the fact that like many new methods introduced into clinical use there has been with each one a marked tendency with most practitioners to place too much dependance on the information so readily obtained by them and, on account of this ease of application to ignore clinical nivestigation to the detriment not alone of the patient but also of the physician whose powers of observation soon become less keen and whose clinical acumen soon wanes.

While I am sure too much stress has been laid on the findings of the sphygmomanometer, I do not want to be understood as absolutely disregarding them for there is no doubt by its judicial use much information can be gained and evidence of changes in the cardio-vascular-renal system obtained probably at a much earlier period of their evolution than by other means, or at least

*Read before the Jackson County Medical Society, Jackson, Mich., April, 1921.

one's attention may be directed to a more careful investigation of these organs for signs of their functional impairment. We should be very careful not to over estimate the information obtained by these readings and they should be taken into consideration along with the clinical data at hand with due regard also to the fact that the normal blood pressure is in all probability subject to no inconsiderable variation in range and that the age, sex, emotional state, posture, physical exertion and other influences further materially modify it, fluctuations of 15-25 m.m. not infrequently being encountered, the most fruitful source of error probably being the psychic state of the patient at the time of examination. As a rule the diurnal readings in any patient are fairly constant, except as modified by physiological conditions, so that when one encounters a pressure beyond the average usually found in persons of a certain age, one's suspicion of its having a pathological significance should be at once aroused and an effort made to determine its indications by an inquiry into the condition of the arteries, the heart and the kidneys.

The use of the sphygmomanometer is of value in determining two essential elements: first, an estimation of the amount of work the heart is called on to perform above the normal, and second, an appreciation of its ability or disability to meet the extra demand.

An estimation of the systolic pressure furnishes much the most important information although much stress has been placed on variations in the diastolic and pulse pressures.

As to pulse pressure one is scarcely justified in basing any conclusions on it as in no way whatever is it an index of the cardiac output in which capacity it has been largely considered in the determination of changes in the circulation in disease processes or in the estimation of the effects of medication. The reason for this failure is that while the amplitude of the pulse and the cardiac output may increase and decrease more or less synchronously there is no quantitative relation between them as the pulse pressure may at different times correspond to systolic discharges of very different volumes. Then, too, when one considers that comparison of pulse pressure observations at hourly intervals in the same individual quite usually exhibit considerable variations how much less can readings be depended on when an isolated observation is compared with a remotely preceding isolated observation in the same individual or an attempt made to estimate the comparative values in different individuals.

Determination of the diastolic pressure has been subject to much variation of opinion as to whether the point of greatest amplitude of excursion of the mercury or the suscultatory method more accurately defines it, and if the latter which sound phase should be interpreted as significant of the diastolic pressure. The consensus of opinion at present is that the suscultatory method is the most practical and that the termination of the fourth sound phase or the point of cessation of the loud sound, not the cessation of all sound, should be the criterion. As with the systolic pressure, this too, is subject, contrary to general opinion, to quite considerable variation and I share with Cabot and many others the opinion that we know too little about it to adjudicate its significance let alone to draw any hard and fast diagnostic or prognostic conclusions. Normally it may vary in adults between 70 and 100 m.m.

In m.m. of mercury the systolic pressure in adults may be stated to vary between 110 and 150, and for any individual this may be roughly arrived at by adding 100 to the patient's age, the figure thus obtained representing the high average for that particular period of life, this applying arbitrarily to persons between 20 and 50 years of age. Figures showing any definite increase over this must be looked on with more than suspicion and as likely evidence of some pathological condition.

Increased pressure is met with under a number of conditions but one's mind usually associates it with one or more of the following classes:

1. Simple hyperpiesis or essential hypertension.
2. Hyperpiesis with arterial sclerosis.
3. Hyperpiesis with renal disease and arterial sclerosis.

I wish to make reference particularly to the condition of hypertension in which we have permanent increase of blood pressure without discoverable pathologic anatomic changes in the vessels or kidney. Much discussion has of recent been carried on as to the etiologic and pathologic relations of this type of hypertension so frequently encountered in middle aged persons of both sexes. Some of these have their origin no doubt in the focal infections, the intoxications of alimentary origin or those arising in connection with disturbances of metabolism, the toxic element acting on the vaso motor

centre or problematically on the supra renals producing spasm of the smaller vessels with consequently increased peripheral resistance and the necessity for an increase in the blood pressure to maintain an efficient circulation. It is most likely to arise in high strung, nervous or emotional individuals and it has a frequently interesting inception at about the period of the menopause in women, particularly those who have a tendency to become obese.

This hyperpietic condition must be considered in its relation to arterial sclerosis and renal disease with their consequent ultimate damage to the myocardium. Some no doubt pursue a more or less benign course the heart simply undergoing hypertrophy to meet the increased demand. Others and probably the larger percentage even in spite of a careful regimen progress relentlessly and sooner or later develop a vascular pathology of which the hypertension was no doubt in its earlier phases an evolutionary part.

The symptomatology of these problems can scarcely be dissociated from that arising in the various viscera in which the circulation is compromised. The early manifestations are variable and depend in great measure on the reaction of the individual to discomfort and upon which vascular area bears the initial assault. The routine use of the sphygmomanometer in the examination of adults detects many, while unfortunately, many more do not come under observation until distress of cardiac origin, a cerebral accident, or profound disturbances of the renal functions such as uraemia, apprise the physician that he is no longer dealing with a simple hypertensive process but that vascular, renal and cardiac pathology has already made considerable aggression.

In early cases no evidence other than that obtained by the sphygmomanometer may at the time or even later be forthcoming that the increase of tension which is a compensatory process, is present. The pressure may be moderate, 175 or range as high as 250 or even 300, but the higher pressures are almost always associated with definite renal changes as evidenced by alteration of the quantity of the urine and the frank presence of albumen and casts.

Here it is wise for us to keep in mind the fact that the usual routine examination of the urine may not acquaint us with the true state of the kidney which may be disclosed only by various tests of function or more subtly by an examination of the blood revealing evidence of urea, creatinin, etc., retained in excess of the normal .

Sooner or later the gradual rise in pressure produces hypertrophy of the cardiac musculature and in the vessels, hypermyotrophy supervenes, and this is no doubt present in varying degrees at a much earlier period than we are wont to suppose though if we are careful in our investigation the hearts apex will usually, but far from always display some displacement, though slight, in a downward and outward direction and the artery under the finger will feel thickened and somewhat "rubbery."

The symptoms referable to the nervous and circulatory systems are probably the earliest to appear. A sense of fatigue, physical and mental, inability to concentrate, irritability, drowsiness or insomnia, digestive disturbances, some variable headache and slight dizziness with occasional pain in the occiptal region are frequent, while coincident with this or somewhat later, vascular pulsation and palpitation and slight dyspnoea on exertion appear, the latter significant of a more or less marked limitation of the field of cardiac response.

A transition from this condition of simple hypertension to that of definite arterial sclerosis with its disconcerting clinical course and foreboding outlook fortunately does not always supervene and many individuals follow for many years energetic pursuits, their hypertension exercising but a minor factor in curtailing their activities or influencing the duration of their life.

The outlook then depends, only to a limited extent, on the height of the pressure, the determining prognostic factors being the extent of the changes in the vessels, heart, kidneys and brain, the supervention of these occurring coincidently with the onset of the hypertension, or at a more or less remote period in its course.

A more or less permanent reduction in the pressure is possible, in some, if proper cooperation of the patient can be obtained but even when this is possible, the aim cannot always be accomplished. The best results are obtained from management rather than from drugs. In my own experience all drugs of the vaso dilator type, including the lately much vaunted Benzyl Benzoate, have been a total failure in so far as a reduction of pressure may be a sign of their utility. The value of rest is far from appreciated. Rest in bed for a few hours a day or a few consecutive days or weeks as the individual situation may demand or permit and the removal so far as possible of mental strain

and emotion will accomplish more than all our drug therapy. The influence of diet has been and is the subject of much controversy with particular reference to the use of animal proteins. For a short period at the commencement of treatment, I am in the habit of cutting out all meats, but I am convinced that its continual exclusion from the dietary is of no benefit to the patient, while in limited amounts it does no harm. It serves to vary the monotony of the meals and most patients experience a sense of feeling better with its moderate use. On the other hand extractives should be excluded on the ground of having no nutritional value while they may act as vaso constrictors and entail more work on the kidney which may already be damaged. Excesses in feeding should be avoided and the use of alcohol and tobacco abandoned or reduced to a minimum. The fluid intake should be curtailed as in excess it undoubtedly increases the blood volume and this may tend to raise pressure, while with renal insufficiency present, it may provoke edema. For similar reasons the intake of salt should be restricted.

Purgatives undoubtedly exercise a beneficial influence, those which tend to produce fluid motions being the most useful. Daily evacuations, the frequency depending on the condition of the individual, are much more useful than the occasional use of more active purgatives, although in the form of mercury, these are of undoubted benefit.

When exercise is permissible, walking, bowling, golfing or horseback riding are the best forms and on no account should hurry or excitement be permitted. Gradually the routine of the patient can be more or less completely re-established.

So far I have spoken of blood pressure only with reference to hypertensive states, but I wish to call attention to the variation in which the arterial pressure is constantly subnormal, a condition of hypotension. Like hypertension, it too, may occur in association with many pathological conditions such as Addison's disease, in which it is a striking symptom, and others in which it is less marked, as various infections, acute cardiac disease, shock, etc., in which the relationship is quite obvious. But there is a type of case which is apparently not linked up with any other disorder and to which the term essential hypotension might well be applied. It may be regarded as an evidence of asthenia and at times appears to have a familiar relationship. The factors in the causation of this type are diminished ventricular output and lowered vascular tone, the latter being the chief one.

The patients comprising this group are usually classed as neurasthenics. They complain of fatigue, are readily exhausted, the extremities are cold, often cyanotic, the palms of the hands are moist and they have a tendency to mental depression. As with many cases of hypertension, so with many or quite the majority of this hypotensive group, the sphygmomanometer directs our attention to it.

In their treatment here also, as in hypertension, the best results come from management. They should have outdoor work and recreation always short of the point of fatigue. The diet should be generous and include the articles restricted in hypertension such as meats, gravies and extractives. They should be encouraged to take fluids freely. The bowels should be kept free but severe purgation should be avoided. A morning cold sponge, followed by a good rub increases their vigor. In the way of drugs, few can be mentioned that might be of any service. Nux Vomica is valuable as a tonic to the nervous system, while Pituitary extract and Adrenalin might possibly be useful in cases where a disturbance of the function of these internal secretory organs was suspected. Ergot has been recommended because of its problematic action on the nonstriped muscle of the vascular system.

FRACTURES OF THE LOWER THIRD OF TIBIA AND FIBULA

A. D. LAFERTE, M. D.
DETROIT, MICH.

In taking up fractures of the lower third of the tibia and fibula, it is not my intention of reviewing the literature concerning this subject, meagre as it is, nor to go into any detail concerning the pathology. I merely wish to present to you a method of extend-

Fig. 1.
Plaster Boot

ing and fixing these fractures, which has worked out excellently in a great number of cases.

It was my good fortune to care for a considerable number of fractures in Base Hospital No. 17 in France, since we had approxi-

Fig. 2.
Plaster Boot in Thomas Splint.

mately 200 beds given over to bone and joint injuries, and these cases were evacuated as soon as we felt that this could be safely done, without disturbing the injured member. The beds were immediately refilled with new cases, this giving opportunity for the handling of a great number of bone injuries, for all of which I was personally responsible,

Fig. 3.
Case 1. Immediately After Fracture.

and I wish to state that, beyond doubt, the greatest worries were in connection with the fracture under discussion, until our method of extension and fixation was worked out.

As you know where both bones of the leg are fractured in the lower third, the fracture of the tibia is usually oblique and the lower fragment displaces posteriorly and externally, and even though we are able to obtain a reduction, it is almost impossible to hold it with the usual splints or plaster cast, for the reason, that the obliquity of the tibial fracture offers little resistance to the displacement consequent to the muscle contraction.

What must we do to prevent this muscle contraction? The answer of course, is—apply extension. Very simple, but to what shall we attach our extension? The fracture is so low that it is impossible to obtain enough skin surface for the usual application of adhesive tape or glue, and even

Fig. 4.
Case 1. Immediately After Application of Boot and Splint.

though we could attach our extension in this manner, it would not remain secure long enough to hold the fragments in place, because it is a remarkable fact that union in this area is more indolent than in any other part of the body, due probably, to the lack of soft parts over the tibia.

In order, therefore, to present a surface sufficient for the traction we apply a plaster boot. This extending from the toes to the fracture line, having first applied two pieces of felt, one-fourth inch in thickness; one over the doreum of the foot extending from fracture line to toes and broad enough to cover both malleoli; the other, on the back, extending from fracture line to heel, this being wide enough to overlap the former, thus giving two thicknesses of felt over

each malleolus. These pads may be covered with a few layers of flannel bandages, over which the plaster is applied, and so moulded

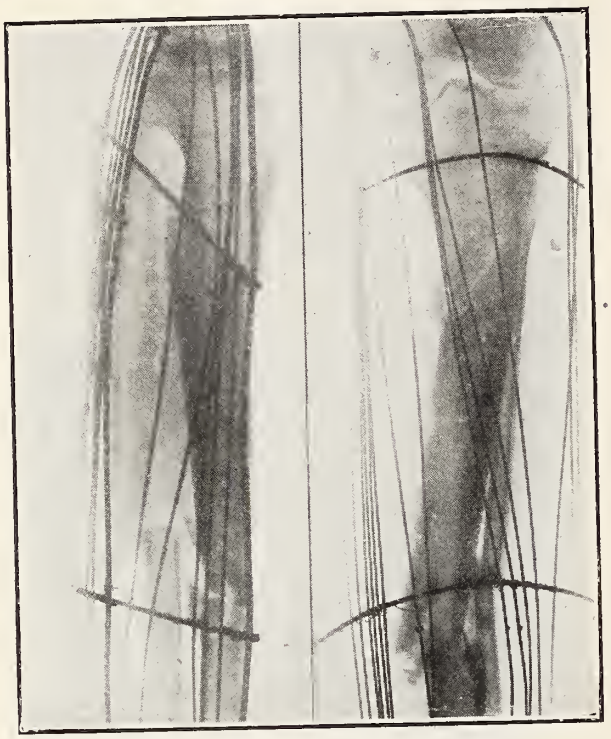

Fig. 5.
Case 2. Lateral View, With Original Splint. Note Over-riding of Fragments.

Fig. 6.
Case 2. Antero-posterior View. Note Angulation of Fragments.

as to fit quite snugly above the ankle and rather free over dorsum and heel.

When the plaster is sufficiently dry, a heavy piece of cotton bandage is looped about the boot in such a manner that the ends, which will be used for traction, will be given off one from the neighborhood of either malleolus.

A Thomas splint is now applied which has been bent to about a 135 degree angle at the knee, thus allowing the knee to flex relaxing the tendo-Achillis. Easier traction and consequently easier replacement of the fragments being obtained.

The traction is applied in the usual manner, quite tight, but not extreme.

After about three days the muscle spasm will have been overcome and it will be well to check up with the X-ray. If adjustment is necessary it is easily accomplished by changing the line of pull. Thus, if the lower fragment is still posterior, move the traction bands forward, causing hyperextension of the ankle and consequent forward movement of the lower fragment. Conversely, if the lower fragment be anterior, move the bands backward causing flexion. If there be lateral displacement, tighten the traction band on the side to which you wish the fragment to move.

If the lateral displacement is extreme it is easily corrected by passing a band around the leg over the fragment to be moved, and tightening it about the lateral bar of the splint.

The boot and splint are used until such time that manipulation no longer elicits any mobility of the fragment. Upon removal, however, one will find that bending is quite easy, nevertheless, the union is solid enough to prevent displacement and the usual plaster cast can now be applied.

The time necessary for the use of the boot and splint will generally be from six to eight weeks, while another four to six weeks in a cast is indicated before any weight bearing is to be attempted.

Fractures in the upper and middle thirds

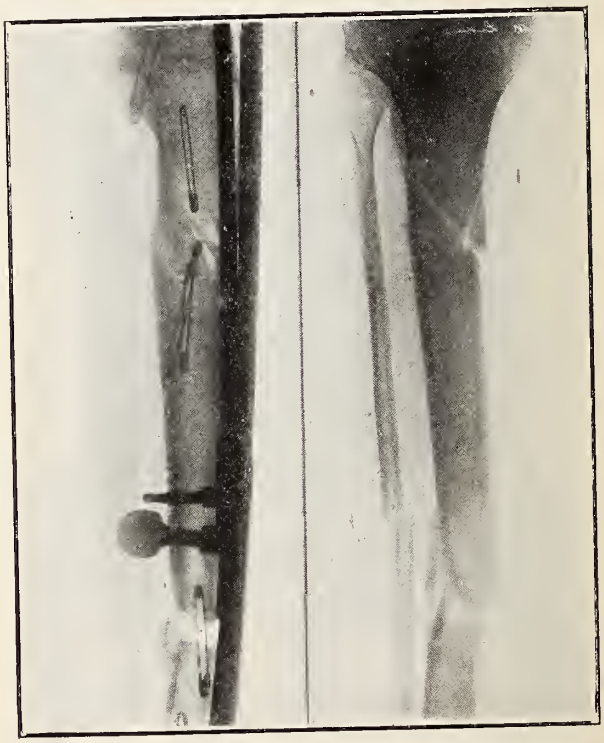

Fig. 7.
Case 2. Three days After Application of Boot and Splint.

Fig. 8.
Case 2. Three days After Application of Boot and Splint.

of the tibia will become united in about half this time, so we must not be mislead by statements in most surgical books which advise us, in fractures of both bones of the

leg to immobilize for six weeks, use crutches for two, and a cane for two more. This is well and good in high up fractures, but

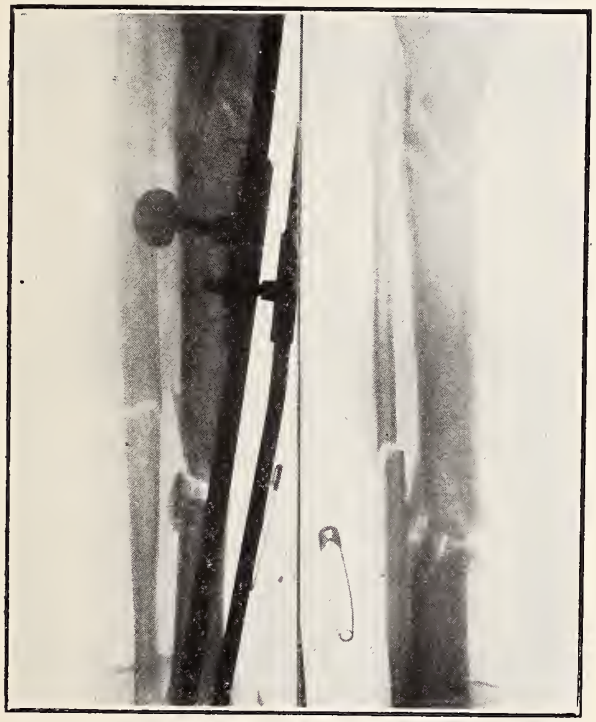

Fig. 9.

Case 2. Three Weeks After Application of Boot and Splint.

Fig. 10.

Case 2. Three Weeks After Application of Boot and Splint. Note Separation of Fragments.

would prove disastrous in the treatment of the fracture under consideration.

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DISCUSSION

DR. GROVER PENBERTHY, Detroit: I like Dr. LaFerte's method of treating this type of fracture. It appears very simple. I think it would be more simple than my method. My method is the use of the St. Clair skate. I was glad that Dr. LaFerte spoke of indolent fractures. That was my experience before using the St. Clair skate. The text books teach us that fractures which are treated with casts in which there is no motion or irritation do not unite as readily. I have some lantern slides to demonstrate the St. Clair skate.

In attaching the strips of adhesive we use a preparation consisting of two-thirds rubber cement and one-third ether. Of course in using this skate you have to watch the temperature of the room. If the nurse allows the room to become too warm the adhesive plaster becomes loose and you lose the benefit of the treatment. I experimented on one case, a fracture of the tibia and fibula, which I dressed with a molded plaster cast. At the end of three or four weeks no callus was thrown out. I then put on the St. Clair skid and immediately a callus started to form and the patient was then given an ambulatory splint. There is a cuff at the point of fracture and two metal bars on the side of the leg with a hinge at the ankle joint.

We also use the Delby plaster mold. It is very excellent. We are trying to get the patients up in two or three weeks. Where we have only a transverse fracture this Denby plaster mold allows the patient to get up and about and to put weight on the leg.

DR. J. D. MATTHEWS, Detroit: I was very much interested in Dr. LaFerte's paper and quite agree with him. His fractures were all of the compound comminuted nature and he certainly got good results. Some of the conditions are most trying. You get a fracture of the malleolus with the foot in abduction, a torn interosseous ligement and an overriding of the fragments, and I cannot conceive of a more complicated condition to treat. The first thing in a fracture of this nature in order to bring about reduction is to overcome muscular contraction. It has been my policy to determine first the state of the muscles that are in contraction. In this case I think it is a good plan, as Dr. LaFerte said, to flex the knee so as to relax the gastrocnemius and plantaris. Another thing, where there is an obstinate condition of the muscles so we cannot bring about a reduction, it is a good plan to massage the parts so as to loosen the muscles. When you have done that you can put your fragments into normal condition.

Another point is the importance of suspension. I think suspension in these fractures means as much as the extension, because you have to preserve the normal angulation in order to prevent any deviation of the fragments; otherwise you are bound to have a bad functional result which is worse than shortening. The main thing to think of in this fracture is good reduction, proper extension and suspension. I have been using the Thomas splint, putting a plaster collar about the knee and a fenestrum over the patella, applying the plaster as Dr. Laferte suggests. The upper end of the traction support is incorporated into the cast at the knee and the lower end incorporated into the cast at the ankle. At the sole of the foot we have incorporated a stirrup for extension. It is a cheap contrivance; you have the limb exposed and always available for massage. I want to emphasize the importance of massage. You can get your patient up much earlier and you do not have the swelling that usually follows after fractures.

DR. N. CAMERON, Alpena: I have not tried the extension which Dr. LaFerte has advised. I have depended entirely upon plaster irons. I have tried Dr. Penberthy's method and found it quite satisfactory.

DR. R. H. SPENCER, Grand Rapids: Until I heard the paper and discussions I always looked upon fractures in this locality as comparatively easy of reduction. I have been practicing reduction in that locality for many years, many times before the X-ray was discovered, depending on manipulation to reduce them and never had a bad result. My method is much simpler than was described by the essayist or the discussants. I have an assistant hold the patient's foot and put on strong extension until I feel the bone going back into alignment. I keep on the extension until the cast is applied. I have found that this dressing has given me very good satisfaction. Within the last week I reduced two fractures in this locality. After they were reduced and the plaster splints applied, I had an X-ray taken. I expect to get a good result in these cases without the use of the complicated apparatus that has been described.

DR. R. C. STONE, Battle Creek: I wish to compliment the essayist on the results which he obtained in these very severe and unusual fractures. I think most of the men prior to the time they went into service had been in the habit of treating fractures in the same manner as Dr. Spencer has spoken. When they became more familiar with the St. Clair skate and Thomas splints they found that these fractures are much more easily treated in this way. It looks complicated but after you have handled them it is not so bad. I personally have never seen as good results in fractures of this type handled by any other means than the one described by the essayist.

DR. L. M. BOGART, Flint: Have you received and bad results from pressure on the malleolus?

DR. F. B. WALKER, Detroit: When certain special methods are advocated. I believe they should

be used in certain given cases and not as routine for cases of that general type. I look upon this method as I would some other means of securing and maintaining reduction. As you know, some of these cases do not override. There is not much displacement and if the fracture is reduced early, perhaps without much difficulty, and with a properly supported dressing, it can be kept in place. I would consider this method as another useful adjunct in the treatment of this class of cases. I would not feel like discarding all other methods for the sake of this or any other particular one.

Doctor LaFerte did not perhaps intend to include one other thought that is uppermost in my mind in all kinds of fractures. Perhaps he intentionally disregarded it. My idea is that the after-treatment, so-called, is really not after-treatment but is a part of the treatment. Just as the medical man would not discharge his case of long standing until he had gotten the man back to full recovery, so I think any case of fracture ought to be kept in hand until the patient is back on his feet or has as full function of the member as he had before the accident. That is the part of the treatment, the after-treatment so-called, which we as surgeons too often neglect. It has been spoken of and yet I am sure that we do not ordinarily carry those cases along as far and for as long a period as the case really demands. The use of splints with resulting stiffening of joints should be provided against in the early port of the treatment.

DR. MITCHELL, St. Joseph: There are many and various schemes for the treatment of fractures, but I think the method shown here today is superior to the others.

DR. C. W. CLARK, Caro: I want to say a few words in regard to after-treatment. In my service in the army I found a great many cases of fibrous ankylosis of the joint as a result of fracture, producing an almost useless limb. Our work was to keep up the tone of the muscles. We treated them with the electric current and other means of restoring muscle tone. Unless the treatment was followed up, as Dr. Walker said, the men would go home with a stiff knee or a stiff leg.

DR. A. D. LAFERTE, Detroit, (Closing): Dr. Penberthy advocates the use of the St. Clair skate I think it is excellent if you can hold the fracture long enough without tension to put your clue on. Dr. Penberthy was discussing fractures of the middle third. These can be treated in about half the time that fractures of the lower third can. I use the St. Clair skate a good deal in those fractures. I had to do away with it because I could not make it hold for eight weeks. It is very bad to have to change horses in the middle of the stream in fractures. Perhaps I did not have the proper glue. If we can get good results with this method I think it is a good thing. I am not advocating any one method of treating fractures: I am merely advocating the one which gives me the best results.

Dr. Matthews mentioned muscle contraction That is why I mentioned raying your cases three days after reduction. Do not ray your case under the fluoroscope and start pulling. That is wrong. You get so much tension that you will get a pressure sore. It is absolutely necessary to put on heavy tension at the start. Your fracture is not going to do very much better when the case leaves the table but in three days it will be end-to-end.

One man mentioned pressure on the malleolus. You would get pressure on the malleolus if you were not careful. You have to work the plaster very carefully. That is why I mentioned two felt pads, one going down the front to the toes, and the other coming down over the back. They are wide enough to overlap each other. If you do that you will not get pressure sores.

Dr. Walker spoke of better after-care of fractures. In transverse fractures you would not have to use this method.

Dr. Spencer mentioned putting on a plaster cast. If I could get the results he has had I would never use any other method. I have tried a good many times, and many others have tried, to hold oblique fractures of the lower third and put on plaster and I could not do it. I do not think in fractures of the lower third with a plaster cast and absolute immobility you will get union in the time you would without the cast. Therefore, I would condemn the plaster cast in fractures of the lower third.

I did not take up after-treatment in the paper.

SOME EFFECTS OF HIGH PROTEIN IN NEPHRITIS

THEODORE L. SQUIER, M. D.
BATTLE CREEK, MICH.

It is the function of this paper to re-emphasize the importance of rigid protein restriction in nephritis through a consideration of two cases in which the deliterious effects of high protein are clearly demonstrated. In treating nephritis the logical aim should be to secure for the diseased kidneys as near physiologic rest as possible, and inasmuch as the work of the kidneys centers largely in the excretion of protein waste products, obviously the protein intake should be restricted.

Contrary to this view, Epstein (1) has gone so far as to advocate high protein diet in a certain limited group of cases in which oedema and albuminuria are the outstanding features. It was shown by Newburgh (2) in 1918 that high protein diet over long periods produced in rabbits chronic diffuse, bilateral kidney lesions. During the last year, Squier and Newburgh (3) studied the effect of forced high protein feeding over short periods in normal young men. Preceeding forced meat meals careful urine examinations were made and in no instance were red blood corpuscles present in the sediment. In every instance red blood corpuscles were present following forced meat feeding but in no case was there albuminuria. On the other hand, in a group of cases similarly studied in which hypertension was the salient feature and in which save for low specific gravity the urine findings were negative, after forced protein, red blood corpuscles were invariably present in the sediment and in addition there was a distinct, though slight, albuminuria. In this study, we felt that definite evidence of renal irritation following high protein was obtained both in normal men and in patients with so called essential hypertension.

The following cases, studied at the University Hospital and presented through the courtesy of Dr. L. H. Newburgh, illustrate

an intimate relation between high protein and exacerbations of nephritic symptoms.

Case I. The patient, age 35, entered complaining of weakness. There was no history of scarlet fever. At 19 he had typhoid, complicated by phlebitis and was sick for three months. Fifteen years ago a submucous resection was done, previous to which he had been subject to frequent head colds. He has always been a heavy meat eater, according to both his own and his mother's statements.

In May, 1920 he first noticed a slight swelling of the ankles and a general tired feeling. On May 5, he went to a banquet at which he ate what he describes as a very large steak. On the following day the swelling of his ankles was much more marked and upon urine examination his doctor found 8 gms. of albumin per liter, together with large numbers of hyaline and granular casts. From this time he consulted his doctor frequently and kept an accurate daily record of his condition.

Inasmuch as he was assistant professor of Bacteriology and Physiological Chemistry in an Illinois University it was felt that reliance could be placed on the following data summarized from his records.

He was put to bed and given a strict milk diet with free saline catharsis. The oedema rapidly cleared and by the end of a week only a small amount of albumin was present in the urine and no casts were found. He was then given one chicken wing a day with 250 cc. of chicken broth, prepared by shredding the meat and heating gradually in one quart of water. During the first two days of the increased diet he felt much worse and on the next day he said "he felt as though someone had hit him over the head." The urine which had previously contained a trace of albumin and no casts now contained 12 grams of albumin per liter and very many casts.

He returned to milk diet with daily saline catharsis and at the end of one month the albuminuria had again cleared to a trace. His diet was once more increased, this time one poached egg on toast being added daily. After three days he subjectively felt much worse, his urine coagulated almost solid with albumin, and casts were present in enormous numbers. He immediately returned to low protein diet to which he had adhered up to the time of his admission, Aug. 1.

The routine physical examination showed teeth with many fillings. The heart apex was in the fifth intercostal space in the nipple line but no murmurs were present. An Orthodiagram showed moderate enlargement of the left sided type. The blood pressure was 135/90. Dental films showed evidence of irritation at the root of the lower second left molar and the tooth was later extracted. The blood was normal.

The urine was acid, specific gravity 1014-1016 and contained 7 grams of albumin per liter and a few hyaline and granular casts with occasional red blood corpuscles and a few white cells.

Phthalein excretion was 32% in the first hour, 13% second hour. Blood chemistry:

Incoag. N.	34.0 mg. per 100 cc.
Urea N.	15.0
Creatinin preformed	2.06
Total creatinin	6.30
Uric Acid	2.43

We wish to emphasize in this case the tremendous upset which followed the use of protein or protein extractives in the diet. On three separate occasions protein or its extractives apparently bore a causal relation to exacerbations of nephritic symptoms and such a relation is of even greater interest in view of the fact that the blood chemistry was normal at the time the patient was first seen.

The next case illustrates in a still more satisfactory manner, since the patient was under immediate observation, a striking exacerbation of nephritic symptoms following high protein.

Case II. The patient was a girl, age 13, admitted to the University Hospital April 14, complaining of swelling of the face and ankles. Her mother died of Brights Disease, otherwise the family history and past history are unimportant. There has been no chorea or rheumatism. On the first of January, 1920, she had an attack of dizziness, her face became swollen and her physician diagnosed scarlet fever. She was home from school for two weeks. Upon her return her face again quickly became swollen and in a week it was necessary for her to leave school. For the past two years she has had headaches which have lately become more frequent and severe. She has had what her father considers an abnormal appetite for meat. Examination on admission showed a well marked oedema of the face and ankles. The tonsils were definitely enlarged and the heart apex was in the fifth intercostal space in the nipple line. A blowing systolic murmur at the apex was well transmitted to the axilla. A2 was accentuated. The blood pressure was 185-105. Orthodiagram showed a moderate enlargement but no evidence of valvular disease. The eye grounds showed well marked neuroretinitis. The urine specific gravity varied from 1011 to 1028 and there was a floculent precipitate of albumin on heating. The sediment contained a number of red blood cells together with hyaline and granular casts. Phthalein excretion was 25% for the first and 15% for the second hour.

She was placed on a low protein salt poor diet with limited fluids. Her blood urea on the sixth day was 38. mg. per 100 cc. The oedema gradually disappeared and her weight fell correspondingly from 117 pounds on admission, to 105 pounds on April 29, which was approximately her normal weight. The urine sediment at this time contained hyaline casts but no red blood corpuscles. On the 28th and 29th there was added to the low protein diet 5 grams of salt and no restriction put on fluid intake. The salt was promptly excreted and there was no subjective disturbance of any kind.

On May 5 her weight was still 105 pounds and her blood urea was 18 mg. per 100 cc. The urine contained 6 grams of albumin per liter and no red corpuscles were present in the sediment. On the following day, May 6, she ate in addition to her low protein diet 235 grams of chicken at noon and 295 grams at night making a total meat intake for the day of 530 grams. She was allowed salt and as much water as she desired in order that the condition with respect to these factors might be as nearly as possible the same as on the days when she was given salt and unrestricted fluids but low protein diet.

On the day following the meat, May 7, her condition was described in the ward notes as follows: "She complained this morning of considerable headache which has occurred for the first time since May 2. At noon she refused most of her dinner because of nausea and she has vomited three times today. Previously she has been up around the ward but today, although not ordered to do so, she has stayed in bed most of the time. Her face appears oedematous." Her blood urea on the morning of the day following the meat was 84 mg. as

compared with 18 mg. on the preceding day. The urine contained 35 grams of albumin per liter during the day as compared with 6 grams per liter before the meat. The phthalein excretion was 18% for the first hour and 10% the second hour as compared with 25% and 15% April 14th, and 30% and 10% April 28th. Furthermore, the urine again contained a fairly large number of red corpuscles. On low protein diet the albuminuria quickly diminished and the night urine of May 7th contained but 9 grams of albumin per liter and that collected during the subsequent 24 hour period was at the original level of 6 grams per liter. Her weight, which on May 5th was 105 pounds, increased after the meat to a maximum on May 8th of 110½ pounds. The course of the reaction is illustrated in the chart.

It is to be borne in mind that high meat feeding would not have been attempted had not the therapeutic value of such diet been advocated. Subsequent rigid low protein diet quickly brought the patient's condition back to the original level and inasmuch as both she and her father were greatly impressed by the necessity for rigid protein restriction we felt that her subsequent willing co-operation counter balanced any evil effects of the reaction.

SUMMARY AND DISCUSSION

Two cases are presented, in one of which there was a history of three separate exacerbations of nephritic symptoms following the addition of meat or meat extractives to the diet. Inasmuch as the blood chemistry was normal at the time this patient was first seen, the disturbance following protein is of even greater significance, for many clinicians are inclined to feel that in the absence of distinct evidence of nitrogen retention, a rather liberal diet may be allowed.

In the second case under experimental conditions and consequently in a much more satisfactory manner the same reaction to protein was demonstrated. Following two forced meat meals the blood urea increased from 18 to 84 mg. per 100 cc., the albuminuria increased from 6 gms. per liter to a maximum of 35 gms. per liter and the phthalein excretion for two hours was diminished from 40% to 28%. There was a distinct increase in oedema evidenced by a gain of 5½ lbs. in weight in the course of two days, and in addition there were headache, nausea, lassitude and other symptoms of toxemia.

Epstein (1) ascribes the oedema of parenchymatous nephritis to a decrease in the osmotic pressure of the blood resulting from the constant loss of protein by the blood serum, thus favoring imbition and retention of fluids by the tissues. Consequently he recommends a high protein low fat diet. Kahn (4) however failed to find the disturbance in the globulin albumin ratio of the blood described by Epstein and concluded not only that such a condition must be exceedingly rare but that feeding patients, suffering from chronic parenchymatous nephritis with protein rich fat, poor diet is a rather risky undertaking.

The meat feeding experiments of Squier and Newburgh carried out with normal young men, demonstrated that high meat feeding does cause renal irritation as evidenced by the appearance of red cells in the urine. Similarly, patients with hypertension in which sclerotic kidney lesions undoubtedly were present, reacted to meat diet in a more pronounced manner by developing a mild albuminuria in addition to the red cells.

The two cases now presented, complete the sequence by demonstrating the severe reaction which may follow high meat diet when the kidneys are already badly damaged and substantiate Kahn's conclusion that feeding such patients a protein rich diet is in many cases not only poor therapeutics, but dangerous.

DR. W. H. MARSHALL, Flint: A short time ago I was at Ann Arbor, and saw some of Dr. Newburgh's sections. I think they are most interesting.

I tried the Epstein diet on two cases of chronic parenchymatous nephritis. There was an increased diuresis for a few days and then a subsequent relapse. But the ultimate result was, I have not much faith in the Epstein diet. For several years since my experience with epidemic trench nephritis in England, I have been in the habit of placing them on a diet for a few days of sugar of milk and lemonade, which seems to render the urine alkaline. I think it is useful. It has at least been so in my experience.

This is a most interesting paper, I am sure.

DR. W. D. MAYER, Detroit: I wish to say that I was under Dr. Epstein in the work on this problem. I recall distinctly two cases that were greatly edematous. One man was so edematous he could scarcely move about in the bed. We tried all the usual things that were used in the treatment of this type of nephritis. His urine boiled solid, and all that sort of thing. Then Dr. Epstein hit upon giving him this feeding, and then that man voided as much as four or five thousand. At the time he advanced many arguments, and claimed it was due to the feedings. I was always somewhat impressed with the fact he might have been dealing with acute nephritis, and the acute nephritis was getting well.

There are two cases I recall distinctly. Some marvelous change did occur on the institution of this high general proteid feeding. I had occasion to talk with him since, and he still claims he has a very good thing. Probably it is a good thing.

DR. M. J. CAPRON, Battle Creek: I was extremely interested in Dr. Squier's paper. We had one patient who showed marked edema. He showed a marked amount of albumin in the urine. After trying a low protein diet and other kinds of feeding with this type of kidney, we tried a high protein diet without any benefit, and also a marked increase in the amount of albumin. On blood examination, we found an increase in total nitrogen.

We have used for a long time low protein diet in treating these nephritic cases. Dr. Squier mentioned the fact that you get increase in the nitrogen

waste material of the body by the use of high protein diet. We have noticed for some considerable time in cases that showed a blood pressure of 100 or above, they had a negative urine finding, and also normal blood finding. By increasing the amount of protein we could get an increased amount of waste material in the blood, and also produce albumin in the urine. On the other hand, we have noticed for a long time with those that had an enormous increase in the protein waste materials put them on a low protein diet and we could secure a remarkable reduction in the protein content of the blood.

DR. H. M. FREUND, Detroit: There are a few things in Dr. Squier's paper I wish to just speak of. First, of course, Dr. Squier speaks of his cases being parenchymatous nephritis. Of course, that is a rather broad classification, I think you will admit. Just what the underlying pathologic picture is of this type of protein nephritis, if he wants to call it that—that is a thing I have not definitely in mind. It is a nephritis, and not a nephrosis he is dealing with.

The question of the high protein diet of Dr. Epstein. I think Dr. Epstein points out that these cases also suffer from a very severe anemia. In other words, he couples the picture of tremendous albumin loss with the severe anemia. a great many of these cases are not of nephritis, but are definitely nephrosis. Now, I believe that there are cases that can be properly picked out of nephrosis, not belonging to the nephritis group at all, where there is much albumin lost. You can see increased hydremia, general anasarea, and the anemia in which the substitution of the protein and the addition of iron in the form either of hypodermic administration or oral administration definitely improves the cases. What the explanation of it is, I am not ready to say. Whether it increases the globulin content of the blood, whether the addition of iron thus increasing the quantity of hemoglobin in the circulation, is a factor, is difficult to say. There are occasionally cases of nephrosis that are definitely benefited by high protein feeding.

Finally, I want to ask Dr. Squier how he accounts for the fact that a functional test such as the phthalein output falls especially in the last case he cites. Why should there be a definite fall of phthalein in so short a time? If we could readily explain that functional change, we would come to a much clearer understanding of some of the transient forms of albuminuria without nitrogen retention.

DR. T. L. SQUIER, Battle Creek, (Closing): Dr. Marshall's and Dr. Mayer's discussion of the paper can be grouped together. In this connection I would like to cite one other case that we had at the University Hospital, in which the Epstein treatment was used. It was a case in which, apparently, we did get benefit from high protein diet. The patient was one who showed edema and a large albuminuria, with red blood corpuscles in the urine, and so on. He was placed on a high protein diet, just as was the girl whom I mentioned, After he was absolutely restricted as to his salt intake and his fluids limited during in spite of high protein diet his weight fell over a considerable period. As salt was added to the diet, he immediately had a return of his edema. Similarly the patient when treated with low protein diet plus salt showed edema. So we wondered at the time whether or not a large number of these cases were not cases of salt retention.

One of the difficulties with the treatment, as I see it, is in picking out the cases of pure nephrosis, such as Epstein describes. It seems to me that Epstein's work cannot be questioned in any way. I do not intend to question that. His data is the result of careful laboratory analysis. In a certain very restricted group of cases, he must get the results which he describes, and the results are very striking. The feature which I wish to bring out is that it is very difficult to pick the type of cases that we can use for high protein diet.

Dr. Freund's question regarding the phthalein elimination is a very interesting one. In the work which I cited in which normal individuals and hypertension cases were fed high protein over a short period, we got extremely interesting results.

In the normal individuals we found a marked increase in the phthalein elimination after the giving of high protein. In those, with nephritic disturbances, we found occasionally a diminution of the phthalein output, and occasionally an increase in the output. We ascribed this change to a diuretic action on the kidney cells. In one place, a definite irritation. In the other place, the injury to the kidney had proceeded so far that along with edema in other parts of the body, there was edema in the kidney as well, and so we have really a diminution instead of increase in the phthalein output. On no other basis could we reach an explanation of this apparent discrepancy between the results.

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A TYPICAL CASE OF BOTULISM AND ITS SPECIFIC THERAPY

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Food poisoning in its various forms in times past may have seemed to some of us a rather indefinite clinical entity rarely to be met or seldom considered of importance. One form, however—that due to the toxin of bacillus botulinus—is quite another matter.

HISTORICAL

From the earliest reported case in 1735 botulism—so-called—has occurred in numerous outbreaks in various parts of the world, notably in the eighteenth and nineteenth centuries in South Germany and the other countries of central and western Europe, and recently with apparently increasing frequency, in our own country. The classic description of the outbreak at Elle Selles, Belgium in 1895 by Van Ermengen, with the first exact work in establishing the etiology, is well known to most of us. It is significant because of the widespread distribution of food products from that state to learn from Dickson's splendid monograph, and from government departmental reports, that a great majority of American cases have occurred in California.

In the middle western states as a group, and in our own state of Michigan in particular, human botulinus poisoning has been comparatively rare. However, in January of this year there occurred in Grand Rapids

one of the largest outbreaks in point of number of persons affected of which we have any knowledge. This outbreak occurred among nurses and employes in a hospital which buys only first class food stuffs and in which the greatest care is employed in the preparation of them. Consequently, it is with the thought that as such a misfortune may come to others, and that possibly the data secured as a result of our experience may be of some value, I presume to present briefly the outstanding features of a typical case of the group. Kindly let me say that I present this case only as the spokesman for all of the men on medical service at Blodgett Memorial Hospital who contributed so much to the care of these patients and to the investigative work over a period of several weeks.

Hospital No. 39417 Age—18 years
History No. A-6007 Nurse in Training
Patient—Miss E. O. American

First reported ill, Monday morning, Jan. 24, 1921.

COMPLAINT

1. Dizziness.
2. Blurred vision.
3. Nausea and vomiting.
4. Thick tongue and speech.
5. Difficulty in swallowing.

HISTORY OF COMPLAINT

Patient first began to feel dizzy Sunday morning, Jan. 23 at about 11 o'clock. Vision was blurred at that time and double vision was present from the onset. These symptoms persisted throughout the day and became more marked but patient remained on duty all day and did not report illness. She went to bed at 9 o'clock at night very dizzy but did not notice dizziness when lying quietly in bed, only upon sitting or standing.

Nausea and vomiting came on Sunday evening and was rather severe for a few hours and then disappeared entirely.

Difficulty in swallowing and thick tongue were first noted about 4 o'clock Monday afternoon. With this there was a sense of tightness in the throat so that the patient could not even swallow liquids.

At the onset and shortly after, the patient noted no headache, no pain, chills or fever, no diarrhoea or constipation. Later, however, constipation was most marked.

Previous history included the following:

Medical—Usual diseases of childhood only.

Surgical—Negative.

Menstrual—Flow began at 13. Regular. Nothing abnormal.

Family History—No chronic illness.

General—Negative.

Physical Examination—A well nourished, well developed young woman of good color who is too dizzy to stand or sit. She lies in bed with eyes closed because the light hurts the eyes. There is noticeable ptosis of both eye lids and a slight divergent squint. Sclerae—clear. Pupils react to light, sluggishly to accommodation, are equal and regular. No sinus tenderness on palpation.

Lips—Dry,

Tongue—Coated. Protruded well in midline. There is thick tenacious mucous present in the throat and this is raised with difficulty.

Tonsils—Small and show no free pus, marked scarring or exudate.

Teeth—Good, with no gross gum infection.

Thyroid—Not apparently or palpably enlarged.

Glands—Not palpably enlarged in the neck or elsewhere.

Chest—Symmetrical. Excursion and expansion apparently equal.

Heart—Left heart border 8½cm. from mid sternal line. Right heart border substernal. Apex beat—7½ cm. to left in fifth intercostal space.

Tones pure and regular and of fair quality.

Lungs—Borders apparently normal. Excursion equal. Resonance and fremitus normal. Breath sounds clear.

Abdomen—Uniform in contour. No distension. No rigidity, but a slight general tenderness.

Liver, kidneys and spleen not palpably enlarged or tender.

Genitalia—Negative externally and by rectal examination. No oedema of feet or legs.

Blood Pressure—In recumbent position—130-70.

Neurological Examination—Patient lies with eyes closed because of photophobia.

Mental functions, including memory, attention, orientation, etc., all clear.

No abnormal movements such as convulsive seizures, tremors, etc.

The speech shows some difficulty in pronouncing words with a "th"—such as thick, thistle, etc.

Cranial nerves—Involvement is suggested, affecting the third definitely the sixth slightly and not constantly, and the ninth and twelfth in some degree.

Spinal nerve involvement with motor disturbances indicated by the definite, well distributed weakness of muscles.

Reflexes carefully tested in detail reveal only sluggishness of the Patellar, Achilles, and Plantar responses. There is no Babinski, no Kernig, no rigidity of the neck.

There are no trophic symptoms noted such as herpes, etc.

Tests for sensory disturbance elicit no abnormal pain response.

Skin sensations apparently normal.

Sense of motion present and accurate.

Sympathetic nerve responses negative except only the eye condition.

Examination of the Eyes—Ptosis marked in both eyes.

Paralysis of accommodation is noted.

There is a divergent squint, with however, occasional spasmodic movements of the right eye toward the nose, indicating spasm of the right internal rectus muscle. Fundus shows disc and retina very red with arteries constricted and veins dilated. The findings indicate—First, partial paralysis of the third nerve, second, Toxic retinitis.

Temperature on admission was 99.

Pulse—84.

Respiration—20.

The urine was clear, straw color.

Specific gravity—1.028.

Acid reaction, no albumen, no sugar, no bile.

Microscopic examination revealed occasional hyalin cast, few epithelial cells, occasional leukocytes and amorphous urates.

The blood count showed 10,600 leucocytes with differential formula as follows:

Large lymphocytes—3.

Small lymphocytes—7.

Polymorphonuclears—89.

Eosinophile—1.

This blood count promptly became normal with 8,800 leucocytes, 32 small lymphocytes, 4 large

lymphocytes and 64 polymorphonuclears. Examination of stool was negative.

Prompt investigation from several standpoints within a few hours of onset of illness in this case led up to suspect as the source of poisoning certain canned spinach served for luncheon on Saturday, Jan. 22, 1921. It was found that this patient had eaten a usual serving of the spinach and had noted the first symptoms in her complaint about 23 hours later.

Toxic material from a can of the same brand of spinach fed to guinea pigs produced death in about 20 hours. Careful experimental work in type determination by Dr. Robert Graham of the Department of Animal Pathology of the University of Illinois revealed botulinus toxin Type A, which was promptly reported. This was later confirmed by Dr. Gigley in the State Food Inspector's office in Lansing, by Dr. Emerson of the Department of Hygiene, University of Michigan, and by Dr. Geiger and Dr. Meyer of the U. S. Public Health Service at San Francisco, Cal.

From the spinach samples and also from bowel contents there was later isolated by Dr. Graham, Dr. Emerson and Drs. Geiger and Meyer a motile, Gram positive, spore bearing, anaerobic bacillus corresponding to the bacillus botulinus.

Details of pathological study of experimental animal tissues and specimens from the three fatal cases are not yet complete, but work so far apparently indicates presence of lesions typical of botulinus cases as reported in the literature.

It may be of interest to see thrown on the screen the proof of type determination of the toxin present, and also to see the similarity in effect on the patient and on experimental fowls partaking of the same toxic material.

SYMPTOMATOLOGY

From the standpoint of symptomatology this case may impress upon us certain symptoms and signs which are most significant and admit of careful analysis and study. Briefly let me call attention to those which were outstanding and characteristic:

1. Blurred vision, becoming progressively more marked for several days and persisting for weeks.
2. Double vision or diplopia, appearing early but lasting but a few days.
3. Photophobia and lachrymation, moderately severe in this case, and persisting over a number of weeks.
4. Constriction in the throat, dryness of the throat, and the collection of thick mucus there.
5. Inability to swallow, lasting for almost four days.
6. Thickness of speech, persisting for a few days only.
7. Constipation, becoming very marked soon after the onset, not yielding to castor oil in large doses—per stomach tube—but responding on each occasion to hypodermic injection of pituitrin.
8. Weakness of muscles—extreme and persistent over a period of weeks.

DIAGNOSIS

Diagnosis of such cases of course is made easier by the occurrence in a group or large number. In isolated cases early diagnosis may not be so easy. With the history of the taking of any suggestive food, including various forms of canned or preserved meats, canned vegetables or fruits, or food stuffs kept in brine, such as olives, etc., together with a symptom complex such as is noted in this case, botulinus intoxication is strongly suggested, and when the subjective data is supported by the eye signs, including especially ptosis, frequently almost a mask-like or Parkinsonian facial expression, together with certain other typical signs of bulbar paresis or paralysis, the tentative diagnosis may be made with some assurance to be confirmed by the laboratory examination of suspected poisonous materials.

It may be of interest in connection with this case to know that one of the first men who saw it regarded it as a case of encephalitis lethargica, and there are certain clinical aspects of such cases which may be confused with some of the forms of sleeping sickness, which we have seen so prevalent in recent months. Careful analysis of clinical symptoms and signs, however, with reference to history and course should distinguish clearly for us in the great majority of cases.

From our experience it would seem that the average clinician should recognize fairly clearly in these cases a toxic paresis rather than a clear cut infection. Brain tumor, brain abscess, meningitis in various forms present occasional points in common, but with usual laboratory aids at hand, and regard for typical history, physical signs, and course, little confusion with these conditions should obtain.

Treatment in this case was to us a new field in which we had no previous experience, and possibly the average practitioner anywhere would have had the same problem to meet under the circumstances.

Dr. Corbus and myself are greatly indebted to Dr. G. W. McCaskey of Fort Wayne, Ind., for the suggestion contained in the report of cases from Decatur, Ind., published in the American Journal of Medical Sciences for July, 1919. Acting on data mentioned there we communicated promptly with Dr.

Robert Graham at the University of Illinois, and obtained from him a supply of polyvalent anti-toxic serum, and later the type A serum which was indicated by the type determination in our case.

Rest in bed and liquid diet were used from the onset, together with strychnin in doses of 1-60 of a grain hypodermically every four hours as indicated by the apparent bulbar paresis. Difficulty in swallowing made it necessary for us to introduce medication and various forms of liquid nourishment into the stomach per Ewald tube, and this we continued for four days. Castor oil and enemas were apparently of little avail in securing bowel activity, but, as noted above, pituitrin hypodermically accomplished satisfactory results on each occasion. We made use to some extent of rectal feeding by means of Murphy drip and for one day fed this patient with the duodenal tube. As soon as the anti-toxic serum was available we gave, in accordance with instructions from Dr. Graham, the usual de-sensitizing dose of three or four minims, and then regular dosage of from 5 to 15 cubic centimeters intravenously at intervals of 6 to 24 hours during the subsequent four days. Such dosage was more or less experimental and somewhat different from that employed by Dr. McCaskey, who used as a rule doses of one to ten cubic centimeters subcutaneously and one to five cc. intravenously at somewhat shorter intervals. In all this patient had 115 cc. of botulinus anti-toxic serum over a period of four and one-half days—45 cc. of which were polyvalent and 70 cc. type A serum. 97 cc. were given intravenously and 18 cc. subcutaneously. Definite improvement in swallowing, in speech, and in general appearance followed the administration of serum from the third day and at times temporary relief of the sense of constriction in the throat and of occasional difficulty in breathing was mentioned by the patient about an hour after the serum injection. As we look over this program of treatment we have felt that possibly even larger doses might have been given to better advantage. Signs of serum sickness appeared in this patient on the fifth day with urticaria rather marked. This was relieved symptomatically by the usual administration of adrenalin.

The course of the case has been of extreme interest to us. The patient is still unable to return to duty. She is, however, able to be up and about and is steadily convalescing, and on May 20 careful review of her subjective disturbance and objective findings brought only the complaint of persisting slight blurring of vision and rather marked weakness of the muscles of the back and legs. In the light of other case reports found in the literature we trust we may look forward to ultimate recovery, without, however, any definite assurance of complete freedom from residual paresis in some form.

As a result of our experience we have felt that in this case the anti-toxic serum was of definite and proven value. We have also felt that the use of it was in considerable measure responsible for the low mortality of 10.3% in our group of 29 cases of which we lost three.

Just how much further one can go under such circumstances is difficult to say, but there is at least suggested to us the desirability of having at hand in convenient centers throughout the state a supply of botulinus anti-toxic serum which may be used in a rational way as life saving aid in times of emergency.

DISCUSSION

DR. C. D. CAMP, Ann Arbor: I have been very much interested in the paper, not only because of the interesting way in which it was presented, but also because I have had an opportunity of seeing some of Dr. Wells' cases some time after their acute symptoms had subsided, and of looking over his case records.

With reference to the point made, the difference between botulism and encephalitis. The pathology is not very difficult. In both cases we are dealing with acute or subacute encephalitis affecting the gray matter of the basic ganglia in the floor of the fourth ventricle. There is, microscopically, very little change in the blood vessel wall and considerable hemorrhage extravasation more particularly noted in the case of encephalitis in the veins, but with nothing very characteristic so far as neural pathology is concerned. This does not mean, however, that the conditions are alike in their etiology or symptomatology because the symptomatology, after all, depends largely upon the location of the lesion rather than its pathology.

When we view the subject from a clinical standpoint, I can see very little resemblance between the two conditions. However, there is one point which, of course, confronts us forcibly, and that is, that botulism occurs in groups of cases. We rarely have a single case. It is almost always a group of cases who have been living together and eaten the same kind of food. They come down more or less within a few hours or days of each other with these characteristic symptoms. That is, we practically never have a case of encephalitis where we find—very rarely—more than one person in a household affected. If more than one, then there is considerable difference in the time of onset. So that on that point alone, the distinction is very obvious.

I have not seen cases where difficulty of speech was a marked symptom, whereas it is probably the most characteristic symptom of all in cases of botulism. With a case of encephalitis it is almost always characterized by a rise of temperature and other evidences of infection. You will find symptoms of encephalitis coming on gradually. Individual symptoms appear constantly. This clinical course of a case of encephalitis is the development of successive symptoms some times days, weeks or even months apart. Finally, in these cases of botulism—some that I examined in Grand Rapids—I

found no sequelae, none of the characteristic sequelae one finds so frequently in cases of encephalitis.

I might say with reference to the treatment of botulism that it seems to me from what I have heard and the study of the subject that the use of antitoxin is very effective. Dr. Heinon of the Laboratory of Hygiene at Ann Arbor has, at Ann Arbor, a supply of antitoxin for use in case of emergency.

DR. W. D. MAYER, Detroit: A year ago I was privileged to see two of these cases in Detroit, out at Grosse Point. I do not wish to enter into the clinical aspects of this disease. The question of treatment of course, came up, and we obtained some of this serum from Dr. Camp. In one case death resulted and the other case recovered.

I wish to emphasize the importance of having this serum available. At the time and thereafter we thought the serum had no especial value unless given immediately. However, it seems to work even if given some time afterwards. I believe it should be available for general distribution, probably through the Public Health Service, who have stations throughout the United States. I think, in the State of Michigan, we have our supply at Ann Arbor. I believe the Board of Health of Detroit was going to get some. I think we are pretty well looked after.

When one reads of the air trips from Champagne, Illinois to New York city, and so on, we feel there should be some agitation about health. One of the Detroit men who has had several cases in his own family has urged the distribution of this through the Public Health Service.

I wonder if it would not be a good idea to go on record that we urge the distribution of this serum through the Public Health Service. I would suggest some remarks on this by Dr. Wells.

DR. MERRILL WELLS, Grand Rapids, (Closing): I have very little to say in closing the discussion, except to say that the subject has been so much on our minds for so many months we might talk a long time on various phases of it.

Some of the best work in the country is being done by a section of the Public Health Service on botulism in California. I think there are under consideration at the present time in that section, means for the distribution of the serum throughout the country. There naturally arises in the minds of all of us questions of extent of involvement of the brain and the centers there when we consider the question of intra-spinal injection of the serum.

Serum intra-spinally, we used in only one case—a case in a very serious condition. We thought there was a temporary improvement following that. We did not have sufficient evidence to say whether there was or not. I am very grateful for Dr. Camp's discussion because, from the standpoint of neuropathology, we are all interested in these forms of possibly what I have spoken of as a toxic paresis. The absence, after a reasonable period, of signs we can attribute to definitely located lesions is somewhat significant. I was very glad to have Dr. Camp come to Grand Rapids and look over the eye-grounds of some of our patients. He remarked after going over some of the patients, the fact there was so little remaining evidence.

I do want to state a word in the way of recognition in the matter of action of the Section. It would seem to me that, in accord with Dr. Mayer's suggestion, it would be a very valuable thing to make a formal request as a branch of the State Society and communicate with the United States Public Health Service, if that seems best, or whatever other agency might promote the distribution of the serum, that there be an adequate supply somewhere about the state.

I am sure the laboratories at Ann Arbor under Dr. Camp's administration at present are very anxious to help us in any possible way in any emergency at the present time, the matter of time and distance being the only question.

BOTULISM

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IMPORTANCE TO THE OPHTHALMOLOGIST AND THE LARYNGOLOGIST

The importance of the study of this malady from the standpoint of the ophthalmologist and the larnygologist, lies in its high rate of mortality; its rapidity of course, but with a definite, insidious onset, showing non-alarming early symptoms; its tendency to group occurrence; and the fact that two out-standing early symptoms have to do with the eyes and the throat; and further, that only by early recognition and prompt treatment may the high mortality rate be obviated. If the first case of an outbreak is recognized the succeeding cases may be saved by prompt action, even though the first case itself may be diagnosed too late for successful therapy. It is often within the province of the ophthalmologist or laryngologist that the first warning occurs of the seriousness of the case.

EARLY HISTORY

As with many other diseases we may recognize in the older literature an occasional mysterious death or group of cases that were not understood, or diagnosed until the entity of botulism was proved, and the causative organism isolated and named by Von Ermengem in Belgium in 1895. These cases were what had been known for years as "sausage poisoning."(1) Von Ermengem had the opportunity to study 23 cases made ill at one time by eating brine-preserved ham. He isolated a typical bacillus from parts of this ham as well as from the bodies of patients. There were three deaths out of the 23 cases. The bacillus was named bacillus botulinus as the cases were clinically sausage (botulus) poisoning.

THE BACILLUS

The bacillus is strictly anerobic and produces its poison only at low temperatures, in the presence of considerable moisture and when light is excluded from the food. That portion of a piece of ham or vegetable just below the surface of the preserving fluid might be intensely toxic while any portion that is uncovered would be harmless. It has also been found that the poison forms very slowly, a long interval for the bacterial growth being necessary to form a lethal dose of toxin in the affected foodstuff. A most interesting point is that the bacillus itself is not pathogenic. Ingestion of the bacillus has no deleterious effect on the human. In 1910 Leuchs first recognized the production

of heterologous toxins by different strains of B. botulinus. Burke[2] established the occurrence of two types designated type A and type B. It is the toxin that produces the symptoms and death. This toxin has not been identified. Its toxicity is of highest intensity. A mere nibble of an infected string bean is sufficient well-nigh to kill the patient. A sip of the liquor from an affected can is likely to prove as fatal as a dose of hydrocyanic acid, even though far more insidious and deliberate in its course of action. Some observers are inclined to believe that the organism does produce toxin in the alimentary tract following the ingestion of preformed toxins and after paralysis of the intestine has set in.[3] McCaskey[4] also thinks that the bacilli growing in the colon probably continues to produce toxins which may be absorbed into the circulation. Orr[5] suggests that botulism may be due to an infection rather than to the ingestion of a preformed toxin. In this he differs from most observers. The botulinus toxin unlike other true toxins is capable of withstanding gastric and intestinal digestive processes.[6]

THE SPORE

The bacillus is spore-forming. The spores are viable after one year kept in hermetically sealed tubes protected from light. The extreme resisting power of the spores under various conditions indicates the necessity for sufficient safety factor in all commercial canning processes.[7] Pressure-steam sterilization will kill the spores but the ordinary home canning will not. It requires boiling for several hours to destroy the spores. On the other hand if affected food is opened for use and even if its spoiled condition is not observed, and the food is subjected to the ordinary house cooking temperature, the toxin is destroyed. This is true even though the bacilli themselves or their spores escape destruction and pass in to the gastro-intestinal tract with the food. Even if the bacilli should live in the intestine the specific toxin is rarely, if ever, produced at so high a temperature.[6] and never without the long time element. This is questioned by Burke, Elder and Pischel and by Orr and McCaskey as noted above. In certain experiments toxin freed spores were fed in large doses to guinea pigs. Certain strains produced death. A limited pathogenicity is thus indicated.[8]

THE FOOD SOURCES

It has long been held that meat products were the sole source of the toxin development. Pork was thought to be its favorite field. As long ago as 1900, however, American observers began to report cases which involved other products such as cheese, canned vegetables and even canned fruit. If this were true it was argued that the incidence would be much higher because of the American "can habit." It is estimated that a quarter of a billion cases of canned foods are used annually in this country. Why such a general consumption has not been followed by broadcast poisoning is indeed as yet unexplained. It was found that the percentage of spoiled cans ran up to 5 per cent before the steaming process of canning was introduced in the late nineties. Even recent tests have shown that from 5 to 8 per cent of certain batches of cans contain viable organisms. It is true that meat and fish cans were more frequently contaminated and further, that the meat organisms were more likely to be bacteria while the vegetable and fruit contamination were usually moulds.. The first cases reported from commercially canned goods were seven cases in Kansas in 1916. The vegetables were string beans or spinach. Five of the seven patients died. The bacillus seems to have a rather general distribution in nature. It has been recovered (in 1918) from bruised fruit, from fruit that has been pecked by birds, from the leaves on string bean vines, from the claws of birds and from hog manure that came from hogs apparently well but that had recovered from an attack of botulism three months previous.[2] A recent personal communication from Graham, University of Illinois, states that "our investigations suggest that this organism is probably ubiquitous throughout the Mississippi Valley."

ITS CYCLE

The cycle of the bacillus is probably about as follows: It is to be found in animal excreta and then enters the garden. Here vegetables, fruit and grass are infected. This may be by wind-borne dust, or by insect and bird. Infected animals that may have recovered may bring the organism to the slaughter house either in their intestinal tracts or in the tissues of their own bodies. Then such handling of food as fails to destroy the infection permits the toxin formation in the can, or in the case of animal fodder, in the silo. Inadequate washing, the retention of unsound fruit or vegetables, incomplete sterilization and the ideal habitat for growth found in the tin can, produce the infected food, the can that is commercially known as the "swell." Not every such can is infected with the bacillus botulinus. It is

however presumptive evidence of grave danger and every housewife should be so instructed. It is possible, on the other hand, that a can may be infected with the B. botulinus without the can showing gross evidence of spoiling, either by odor or by gas formation.

VARIOUS OUTBREAKS

There have been outbreaks in various countries such as Belgium, France and Germany. England seems to have been spared. Dickson has established the common occurrence in the United States.(9) It is altogether likely that only a small proportion of the outbreaks have been recognized or recorded in this country. The available statistical data of the United States shows a death rate of 90 per cent among those first showing symptoms and a death rate of 60 per cent among those last showing symptoms.(3) The high mortality of these statistics may indicate that only the more virulent cases, and this means usually the group outbreaks, are diagnosed as such. The sporadic case, fatal or not, may not be recognized or reported.(13) Until quite recently only 64 deaths have been reported during the quarter of a century since its identification by Van Ermengem. The olive cases in Detroit, (10) and New York,(11) and the spinach cases and the asparagus cases (30) as well as the cheese cases(12) are all recent outbreaks. In the Section on General Medicine at this meeting Dr. Merrill Wells is discussing the recent outbreak at Grand Rapids. Cases have occurred in many states(4) and doubtless with further publicity and attention the incidence will be proved to be higher than at present rated. Already, indeed, the number of recorded cases begins to rise before the determined attack of federal, state and private investigators. Deaths have been reported from canned corn,(9) beets,(14) fruits,(15) and meats (ham and sausage)(16) Certain observers(15) found that practically all of the outbreaks they were able to study on the Pacific coast were due to the ingestion of home canned vegetables and fruits. The same observers however also showed that commercial canning processes are inefficient if the raw material happens to be contaminated with the spores of B. botulinus. Other outbreaks have indeed been shown to be due to commercially canned food.

INCIDENCE IN ANIMALS

The disease has been observed in many animals and with high mortality. Forage poisoning, silage poisoning or cryptogamic poisoning, has been reported in different sections of the United States during the past 70 years.(17)

Animal experimentation confirms the analogy, suggested by the late Dr. Leonard Pearson, of the University of Pennsylvania, between clinical forage poisoning, in animals and meat poisoning in man.(18) Bacilli morphologically and culturally resembling B. botulinus have been isolated from a silage originally associated with a natural outbreak of forage poisoning in mules.(19) In chickens it is called "limber neck." Its onset is early and its course is rapid. The chickens ingesting the residue of the same food as the family, are made violently ill and numbers of them die within a few hours before even the earliest warning symptom appears in the human victims. Advantage of these very sensitive animal detectors might properly be taken in case of suspected food. Such experiments should be made only in laboratory animals as the droppings of the infected chickens, if they are allowed to run free, scatters the bacteria. It has recently been shown that type A is fatal to mature chickens, while type B is non-toxic to the chickens. Still, the feces of these latter chickens are highly toxic to animals susceptible to type B. This suggests a dangerous avenue of distribution.(20) Animals that have been reported to be affected are horses, mules, cattle, cats, dogs, goats, pigeons, rabbits, turkeys and white mice. Outbreaks among horses and cattle have been also called cerebrospinal meningitis, cerebritis, staggers, blind-staggers and cornstalk disease.(4) In one group 18 cattle were sick and four died.(21)

THE SYMPTOMS

The symptomatology is of particular interest to this section. The initial constitutional effect of the toxins is on the circulation, the nervous system and the glandular organs. The more intense the toxins the earlier the onset and the graver the prognosis. In contradistinction to the meat poisonings produced by other organisms, those due to B. botulinus may show few or no symptoms directly referable to the intestinal tract, the chief symptoms being due to toxic interference with the cranial nerves.(22) Outside of a vague malaise, with possibly nausea and vomiting, the first symptom is usually ocular. The patient notes blurring or even diplopia which is accentuated by focusing for near vision. The eyelids feel heavy. There may be mydriasis and ptosis and in fact, general motor weakness in the distribution of the VIIth cranial nerves. In some patients the

pharyngeal symptoms appear first. The patient senses he is not well, but there are no pains, no fever, no rapid pulse and no localizing symptoms. Too often at this stage the patient and his family or even the family doctor attribute the vague illness to overwork, or lack of sleep or a supposed cold. The earliest symptom appears from 12 to 18 hours after ingestion of the toxic food. The next symptom beginning a few hours later is located in the throat. Deglutition seems less easy; the throat is dry, the tongue seems thick and not easily managed in enunciation. The patient may choke. The difficulty ranges from slight dysphagia to aphagia later. There may be regurgitation into the nasopharynx and nose. In speaking the words are blurred or mumbled. It is a question soon whether this is mechanical, due to the muscular affection of the pharynx and tongue, or whether it is not mental. At least, mental depression is a factor. The patient seems confused or bewildered or puzzled. He is slightly provoked at his own difficulty in speaking clearly and expressing himself freely.

By this time the patient has definite diplopia. He walks unsteadily. He is decidedly weak, he holds his head up with difficulty and to swallow is well-nigh impossible.

If no succour is granted there soon supervenes symptoms of respiratory embarrassment and irregularities of cardiac action. Severe attacks of transient weakness occur, syncopal in character. Constipation due to intestinal paralysis appears. The cause seems to be paralysis of the centers, rather than to visceral pathology. Death may result from choking, from cardiac failure or from respiratory failure.

If recovery is made the patient has a prolonged convalescence, the diplopia, blurred vision, pharyngeal activities and general muscular strength returning to normal very slowly. In one case[4] active borborygmus appeared as one of the first signs of improvement following the use of serum. The patient is too enfeebled to be about for some days after out of danger. The annoying and even threatening choking and pains in the throat may persist for three to five weeks, and it will likely be as much longer before he is considered well. Even then a hoarseness and occasional headache give evidence of the experience occasionally for from three to six months.

PATHOLOGY

Very little cellular pathology has been described. The bacillus botulinus has been recovered from the tissues of various victims. Warthin reports the finding of colonies of bacilli which seemed to be B. botulinus in the pons and medulla of one of our cases here reported. They were in the walls of small gas cysts. The small vessels of the brain stem are intensely engorged, but no marked cellular exudate is to be seen. It would seem that the toxin has its overwhelming effect in the various nerve nuclei without producing or permitting much tissue reaction.

Histological changes are found in the central nerve elements consisting of the disappearance of the chromophile granules, the formation of vacuoles and the ultimate disintegration of nerve cells. These changes have been found especially in the region of the third and fourth ventricles. This would account for the involvement of the vagus, hypoglossal and glossopharyngeal nerves.

Blood extravasation appears in the liver, spleen and kidneys. If death is delayed fatty degeneration of the parenchyma, softening of the intestinal coats and hemorrhagic areas all ensue.[4]

In animal postmortem examination hemorrhagic lesions were found in the outer wall of the small intestine and on the inner wall numerous punctate hemorrhages and highly injected areas. Grossly the following pathology was noted: Congestion of the lungs, areas of hyperaemia and hemorrhage in the mucous and serous membranes and gelatinous infiltration in the connective tissues.[23]

THERAPY—PROPHYLAXIS

The therapeutics is prophylactic and active. The first preventive measure has to do with the handling and caring for foods.[24] The food to be canned should be definitely sound. It should be thoroughly cleansed by washing. The room, the apparatus, and the general sanitation of the factory or kitchen should be up to standard by bacteriological tests. In canning, the only sure way of destroying the spores is by the steam-pressure process. Ordinary domestic canning would not insure against botulism in case infected raw foods were used. It is felt that the sugary solutions as ordinarily used and brine solutions of more than 6 per cent strength inhibit the formation of the toxin.

The second commercial safeguard is the careful study of each batch of cans. From each run, a number of cans should be taken for special observation. It has been noted above that a cool temperature encourages toxin production in infected cans. These tests cans therefore are to be stored in a cool room and after time enough has elapsed

the cans should be tested. They may be tested by looking for "swells," by bacteriological cultures, and by testing the juices on susceptible animals. It is impossible to select toxin containing samples without animal experiments.[24] The National Canners Association is investigating at great expense the subject of food poisoning. It is determined to improve commercial canning to prevent further outbreaks.[3] Naturally the true interest of the canners lies wholly in the direction of discovering what the danger is, how it arises and how it can be best avoided or overcome.[25]

A third safe-guard lies in the education of the housewife as to the dangers and the following facts. The affected food usually produces gas, thus causing a swelling of the can top. On opening, an affected can often squirts out some of the fluid, as though under pressure, which indeed it is. Further, the contents do not look normal; there are often gas bubbles and the food looks mushy. Next, the odor from an affected can is characteristic. Instead of the expected normal food odor, there is a sort of fatty-acid smell as comes from rancid butter. This odor is greatly accentuated if the food is moderately heated in an open dish. At this juncture the housewife must avoid the most common test of all—that of tasting. Because of the intense virulence of the toxin, a mere taste of the food may produce a grave illness. And further, the contents of the can must not be thrown out to the domestic animals, or on the ash pile or even into the garbage can. The affected food should be entirely destroyed by burning.[8] Merely boiling the food could make it non-toxic, and so not dangerous to any animal who might find it, but the ingestion of such boiled food would infect the intestinal tract of the animal and thus bring about a wider scattering of the bacillus. Spoiled food containing gases may appear to be boiling for several minutes before the true boiling point is reached and still be unsafe to eat. As noted above a can may be infected without these typical changes being evident. This must explain some of the outbreaks.

This subject has had so much publicity recently that the housewife is already forwarned to a great extent, but the ignorant or careless handling of food in public eating houses will still afford recurring outbreaks. The question of the prophylactic injection of antitoxin for those persons associated dietetically with the first case of a possible outbreak is worthy of serious consideration. The polyvalent antitoxin should be employed. Such prophylactic use might even be suggested where sporadic cases are occurring and the source is not yet known.[16] It would facilitate active treatment to establish state depots located in the centers of population where the serum and the services of Public Health experts could be promptly obtained. Prophylactic doses of botulinus antitoxin and related immune sera, developed by Graham, Brueckner and Pontius at the University of Kentucky protected experimental horses against daily ingestion of contaminated corn silage.[27]

Forssman and Lundstrom actively immunized rabbits and guinea pigs by using toxin that had been attenuated by heating for the first injection.[26]

There is one other point in prevention. That is the actual cooking of all food that is taken from cans. By this proceedure even if a spoiled food should escape detection, the toxin will be destroyed and its deadly action avoided.

ACTIVE THERAPY

In event a case should present itself (in Michigan) the first step is to notify the State Dairy and Food Commissioner at Lansing and make telephonic or telegraphic call on the University of Illinois for the polyvalent antiserum. Until botulinus antitoxin can be obtained from commercial sources it will be supplied by the Laboratory of Animal Pathology, University of Illinois, at Urbana, Illinois, in limited amounts, at the cost of production.[17] The patient is to be put at rest and his case assumed to be most serious even though the earliest symptom is slight. The general treatment is symptomatic. Early catharsis to empty the whole intestinal tract is clearly indicated. This will sweep out the toxic food and prevent possible further toxic elaboration. It is suggested that castor oil might be used in hope that it would combine with and attenuate the virulence of the toxin.[14] The use of thorough enemata and early lavage is also advisable. Pilocarpine to relieve the throat of mucus, and strychnine for general effect has been tried with apparent benefit.[3] In case difficulty in deglutition begins a duodenal tube may be passed through the nose and into the stomach. Through this the fluid need can be furnished with a minumum of distress to the patient. The next step is to recover any of the suspected food if possible, for immediate tests on chickens, and for laboratory study. Other members of the family should be warned as to possible symptoms. If the food itself is not to be had, get the name, brand, source and de-

tails in regard to the suspected food to facilitate official action in preventing other cases or a general outbreak.

An antitoxin was first produced in Europe in 1897.[28] Inasmuch as different strains produce heterologous toxins the polyvalent serum is used. It is advised in large amounts and intravenously.[29] The serum may be bacteriolytic or bactericidal as well as antitoxic.[3] It is likely that considerable of the disappointment in the use of the serum has been due to the fact that the proper type may not have been used (where polyvalent serum was not available) and that its use is usually begun late in the course of the severer cases. This is due to the difficulty in early recognition and the delay in obtaining the serum. The use of the serum after the organic pathology is established and the symptoms advanced, is of very questionable value, though the patient should have the benefit of the doubt. Cases have been reported where large doses were not well borne and small frequent doses seemed to yield better results. Professor Robert Graham advises the use of an anaphylactic dose of 2 minims followed by 5 to 10 cc. doses from 2 to 4 times a day up to 12 doses. It would seem that the preparation or at least the distribution of such serum might very properly come under the direction of the Division of Public Health in the proposed Department of Public Welfare. The infrequency of the cases would make the commercial handling of the serum unprofitable and expensive. Under the federal agency a supply might be maintained at the centers of population so that it could be obtained by all with a minimum of delay.

CASE REPORTS

Five cases have recently come to our attention, two of which terminated fatally. The first was diagnosed endemic encephalitis involving the lower cranial nerves (IXth-Xth-XIIth) as well as the IIIrd and VIth. The second case was also diagnosed encephalitis. Both of these succumbed within a very few days. About that time another case of true endemic encephalitis appeared. The attending physician knowing of the two fatal cases felt that this new case might possibly be similar and that all of them might be botulism. Accordingly, the authorities were communicated with and the situation thorougly canvassed. No new cases were found at that time though later the three other cases reported herein were sent in to be interviewed. These latter three patients are all nurses in training and wrote their own experiences, which seem to indicate mild attacks of botulism. All of the patients ate at various places so that it was impossible to trace the infected food to a common source or in fact to a proven food in any case. The food supplies of the Institution were gone over by the State and Federal agents. The only suspicious food was canned spinach which was shown in a few instances to be infected giving positive tests to type A. This same pack was also traced to other places locally and elsewhere by the authorities and infected cans were located. Whether or not this was the offending food in some of these cases is not proven. At least two of the cases did not eat inside the institution at all and all of them ate outside on occasion.

Case I. W. M. B., No. 136-615. Female, age 20 years. On Thursday morning, January 20 she noticed that she was a little dizzy, that her vision was dim and blurred, and that she had some difficulty in walking. She also had diplopia and ptosis. By noon she found it difficult to eat. Swallowing was worse by evening and she could not talk very well.

January 21. Tongue feels thick, stiff and is unable to swallow. (She consulted a physician, Dr. M. H. Newlove, at this time.) Is weak and drowsy. Very slight frontal headache. No fever, no chills, no cold or sore throat. (Had a menstrual period two weeks ago and another began yesterday.) Examination showed eyes heavy, patient drowsy, has to be roused to answer questions, general muscular weakness. There is paresis of the right superior rectus, the left inferior rectus and left superior oblique. The fundus findings are negative. Right pupil dilated. Both react to light, direct and consensual and in accommodation. The soft palate is drawn to the right side of the throat. Corneal and pharyngeal reflexes are both diminished. Diagnosis, lethargic type of endemic encephalitis. By evening she was much weaker and had a choking spell and a weak spell (syncope). She could not swallow. A duodenal tube was passed through the nose into the stomach to permit the giving of water.

January 22. During the forenoon there was several syncopal attacks. Cardiac action stopped at about 2:30 p. m., fully five minutes before respiration ceased. Duration of disease from 2½ to 3 days.

Case II. No. 134-976. B. H. Female, aged 42 years. On January 23 patient consulted Dr. M. J. Gilfillan. She stated that on January 21 her eyes hurt her so that she could not read as well as usual. Part of the day she saw double. She had no pain, headache or dizziness, but was very tired and quite constipated.

The next day she was drowsy and could not control her motions as well as usual. She remained in bed nearly all day. There was some drooping of her eyelids. Her face felt numb as though paralyzed. She developed a little trouble in swallowing and talking.

On the 23rd, she could not swallow at all. Speech was quite thick. She could not hold her head up and was more drowsy. She has had no sore throat or cold recently.

Examination: Patient is quite cheerful but dull. Both lids droop. Speech is thick and indistinct. She can answer questions correctly when urged. No strabismus or nystagmus. The diplopia is variable. The most constant finding is paresis of the left internal, inferior and superior recti and the

left inferior oblique. Pupils are equal and react normally. The soft palate is drawn toward the left.

On the 24th she is apparently better.

On the 25th temperature 100°, pulse 102, respiration 18. Much weakness of muscles of the neck. Tongue thick. Ptosis more marked. Muscular movements of arms are not normal.

On the 26th about the same. Had a large bowel movement today following castor oil last night.

On the 27th had several cyanotic spells when respiration ceased temporarily. Tongue very flaccid and would fall back into pharynx. Left pupil dilated. Clear mentally though drowsy and a little irritable.

Died at 3:15 a. m., on the 28th, respiration and pulse failing at about the same time.

Duration of disease from seven to eight days.

Case III. A. G., No. 138-260. Female, aged 24 years.

She told her story later saying that, "Beginning about January 20, I was very tired and weak. I could not walk straight and it was an effort to carry my coat, for my back was so weak. I felt completely exhausted. I stayed on duty four days during which time I thought I would feel better.

"The evening of the fourth day I gave up. My eyes were weak and my eyelids drooped. Water stood in them most all the time. I couldn't stand the sun-light but the electric lights had no bad effect.

"Prior to my illness and afterwards my appetite was poor. My throat became practically paralyzed and it was a great effort to swallow liquids. In chewing food my jaws became very tired.

"I had a very tired and aching feeling in the back of my head, my limbs ached, in fact I ached all over. I was confined to my bed one week. During that time I didn't care to sit up in bed. The second week I was up and down in my room. These two weeks I was in isolation.

"For two days after I was out of my room I had a headache which ceased on taking two aspirin tablets each day. On walking, the muscles in my limbs became very sore and stiff, so that I could not walk without wabbling. This lasted a week.

"I was off duty 2½ weeks, and after going on duty I was given very light work. I haven't as yet fully recovered my strength and I still have some difficulty in eating some foods.

"In speaking I found it to be an effort and my voice is still weak and not natural."

Examination of the extrinsic muscles of eyes showed a paresis of the left inferior oblique. Fundus examination negative.

Case IV. F. S., No. 138-704. Female, aged 20 years. She tells her story as follows:

"On Thursday, January 27, I went to the City Clinic. All the while I was there I felt so exhausted that I came home, went to bed at 7:30, with no supper and missed class. Friday morning I got up, still very tired, but thought I was only lazy and would feel better when up. I went on duty at 7. At 7:45 on duty in the Dispensary as I went from one room to another I could hardly see a thing, especially with my left eye. I could distinguish light from dark. When they talked to me I didn't seem to understand or something, I knew they were talking but couldn't answer. My temperature was 99.4 and pulse 112. I was sent home and put to bed. My left eye and the back of my head ached and I was so tired. At noon when food was brought I felt nauseated. I was never nauseated except at the sight of food. Friday afternoon my back, hips, and legs ached terribly. At the back of my head I could hardly stand having any one touch it. At 6:30 I began to feel worse, my treatment was given me and still the pain grew worse in my head. The pain went through my left eye to the back of my head, left side.

"At about 10 I felt numb, my fingers, toes and arms tingled and I couldn't move them. After a "hypo" for the pain, I rested but did not sleep.

"On Saturday, the 29th of January, my head, eyes, back and hips ached so I could hardly move. My neck seemed stiff but my throat never bothered me.

"Daylight bothered me, I couldn't stand the daylight until the following Tuesday, but could stand every electric light going in my room. I slept most of the time, had no appetite. The pain, aches and being unable to stand daylight gradually left. On Wednesday, the 2nd of February I was released. On Friday I walked over to the Dispensary and when I got there I was so tired I lay down for about 30 minutes. I came home and stayed in bed until Sunday the 6th. My head has ached through my eyes since and I haven't felt as strong as I did before being sick."

Examination of the extrinsic muscles of the eyes showed paresis of the left superior rectus, Fundus examination negative.

Case V. E. B. No. 138-762. Female, aged 27 years. States her experience:

"The first symptom of my recent illness was noticed at home during my vacation over the Christmas and New Year season, that of being dizzy. But it did not last long, perhaps a week or so.

"About the middle of January I began again with dizziness. I went to Dr. Harbaugh, I think, on January 24. She had a blood and urine test made. Temperature was slightly subnormal then, which is uncommon, for me. I was also having a little trouble drinking, especially when stooping at a fountain. About this time I began to notice a little difficulty in swallowing. My throat was not a bit sore nor swollen but felt partially paralyzed. Jaws tired when chewing bread crust or celery or anything tough. I did not notice any double vision at any time and did not feel sick in any way nor tired out, just having had my vacation.

"The night of January 26 (having been on night duty since January 13) I developed a headache. It did not leave me during my sleep the following day until I took an aspirin tablet. But I do not think the headache had any connection with the other symptoms as I occasionally have it, and it did not return. But Dr. Harbaugh had me put to bed in isolation, giving a treatment with heat to the extremities. My eyes had been hurting for several days. I supposed it was from reading a great deal at night. After my headache ceased I felt good except my eyes and difficulty in swallowing and both of them were better so that I was permitted to go on duty after being off two nights. All the while I could not hold my eyes more than about half way open, even when they did not hurt.

"On going on duty I noticed that I was weak, but having light work it was not hard to stay on duty and having no class work I slept well through the day. In a week or so I noticed a queer feeling in the back of the head, but no ache. Could not read or sew for a couple of weeks, then sewing made me very nervous. Joints or muscles seemed so stiff, not sore. Not for about four weeks did I begin to feel natural and my eyes hurt yet with a little use. (Feb. 25)."

Examination showed paresis of the left inferior oblique. Fundus examination negative.

CONCLUSIONS

The clinical picture of botulism should be kept in mind at a tentative diagnosis in

questionable cases. Observers have made various diagnoses, among them poliomyelitis, meningitis, methylic alcohol poisoning and encephalitis.

The large number of cases of endemic encephalitis with such varying symptoms makes the differential diagnosis most important. We have seen cases variously affecting the third, fourth, sixth, seventh, the vestibular nuclei of the eighth, the ninth and the twelfth cranial nerves. Some cases show no fever or respiratory symptoms. Many have early blurring of vision and diplopia. The vestibular nuclei case had marked vertigo and spontaneous nystagmus. Some have had sneezing, yawning or hiccoughing. One case, probably affecting the optic thalmus and the mid-brain in particular, had muscular rigidity with choreiform movements and increased reflexes in the legs. Some cases have somewhat simulated paralysis agitans. With such an array of encephalitis pictures the mistake in diagnosis was made by calling the first case one of the same nature but affecting a slightly different locality in the brain stem.

The fact is that botulism is essentially a toxic encephalitis affecting the nuclei of the pons and medulla and with rapid course, whereas endemic encephalitis is an infectious process affecting, as a rule, the cortex, the meninges or the basal ganglia of the upper cranial nerves and with more deliberate course.

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DISCUSSION

DR. BERNSTEIN: I cannot add anything to this, but it seems to me it is of such great importance it is too bad it will receive only the notice of such a limited audience. I hope it will be presented where it will receive wider discussion.

He said that the boiling or better cooking would destroy the botulism. I did not know this. I thought it resisted cooking.

DR. BEGLE: I also wish to add my appreciation.

DR. COLVER, (Closing): The bacillus is anaerobic and under certain conditions forms spores and the boiling in canning may not affect the spores. These spores can form bacilli, and in time these form the toxin. When the food is taken out of the can and brought to the boiling the toxin is destroyed and therefore it is innocuous so far as the family is concerned; but they may have the bacilli in the intestines. If the stuff is fed to chickens, hogs, etc., they might infect the garden or the manure heap. You can be sure of not dying from botulism if all the food is cooked. You can kill the toxin by cooking the food. That has been proven. The toxin that kills the person is the toxin that is killed by boiling.

Sometimes there is a gas formed in the food, and when it begins to cook it begins to ebulate, and it looks and acts like it is boiling when it is really not doing so.

A MEMBER: You spoke of the case of spinnach. Does it have a peculiar taste?

DR. COLVER: It is described as having a spoiled smell. There are observers who say you could tell every case of botulism infected food by this peculiar smell. In the olive, instead of being firm, it is sort of crumbling, and there is an odor.

THE DIAGNOSIS AND TREATMENT OF CERTAIN DISEASES AND TRAUMATISMS OF THE ESOPHAGUS.

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In order to make this discussion practical it will be limited to certain disease conditions liable to be encountered quite frequently and which have certain diagnostic difficulties having a bearing on treatment. The subject matter is based on experiences in this line of work and the problems are presented about as they appear in practice.

It is timely to say that treatment has not quite kept pace with the immense progress in diagnosis achieved by the aid of the es-

ophagoscope and X-ray. Treatment of the diseases of the esophagus is not a very popular field of venture. Surgical procedures are not standardized, and in the detail of systematic follow up and attempt to get surgical cures this particular art cannot compare with the progress, for instance, in genito-urinary surgery.

I will begin with the group of perverted functional disorders of which esophagismus is the type.

Nervous diseases of this organ are explained in a general way on the anatomic physiologic basis. The oesophagus is the first organ of the vegetative system. The pharyngeal plexus under partial volitional control merges into the nutritional system and that fact has a bearing on the nervous disturbances of this tract. The psychic factor through the sympathetic system often interferes with the normal reflexes. In other words the upper esophagus is a physiologic border line. Mental concentration on the act of food ingestion is naturally a pleasurable occupation and there is nothing that starts a panic quicker than obstructed deglutition, be it caused by a too large bolus or a foreign body. The prima via is guarded by rather touchy sentinels liable to precipitate interference from head quarters which disturbs functional harmony. The region becomes the center of tumultuous impulses, sometimes a choking spasm, or a partial or complete reversal of peristalsis as in emesis. In either case, whether he throw it up or gulp it down the sensory nerves are abused, the muscles are sore and there is a shock. As long as there be the slightest excuse in way, an erosion or a bruised muscle coordination is upset and the psychopathic may concentrate on it until the dysphagia habit is prolonged indefinitely.

Now this, an accidental condition, should not be indiscriminately labeled globus hystericus unless there be some of the definite stigmata of hysteria. It may be called esophagismus induced by a trauma. To be sure it may merge into a truly hysterical condition with paraesthesia, hyper or anaesthesia and persistent spasm with the psychic factor in evidence.

Usually there is a stomach reflex—some kind of dyspepsia with hyperacidity or fermentation. Aerophagia, belching and heartburn are commonly in evidence and they are all manifestations of incomplete reversal or irregular peristalsis.

And right here a word about "bad breath." We usually attribute it to teeth, tonsils or sinuses but there is no doubt but that it is occasionally a stercoraceous odor brought up by reversal of peristalsis.

These are some of the causes of globus hystericus and hysterical dysphagia. Throat stigmata are quite characteristic of hysteria. Anaesthetic areas are most common, hyperaesthesia is frequently in evidence; and paraesthesias—dryness, burning or sensations of foreign substances, etc., all perversions of temperature. tactile and pain sensations, are often described. The real problem of the laryngologist is to study these cases broadly; try and eliminate obvious causes such as are found in mouth, throat and nose disease conditions and at the same time he must take into consideration the disturbing factors operating from below upwards, already mentioned. Regurgitated acidity of the esophagus is probably the most common.

Routine testing of throat reflexes will bring surprises. The patient may not be aware of anaesthesia of the pharynx. It is a characteristic of hysteria that nerves are involved in functional groups in contradistinction to organic nerve diseases involving definite nerve trunks, and strange to say, cases having complete anaesthesia of pharynx as tested by touch may have no disturbance of deglutition.

A discriminating diagnosis suggests the line of treatment. Simple esophagismus due to accidental choking rarely needs more that a calming assurance and careful diet; but occasionally one must go the complete diagnostic routine—fluoroscopy, esophagoscopy, etc., before the perturbed mind will be convinced. Bouginage should not be practised unless one has excluded foreign body.

Globus hystericus should be studied etiologically and, the diagnosis made, a refinement of hygienic regime should be insisted on. The acidity of the esophagus may need attention, which means cure the dyspepsia. Bouginage or the esophagoscopic tube may be indicated but is hardly fair to these psychoneurotics to depend on this kind of treatment alone. We should try and eliminate all causative factors mentioned and make an effort to get complete cure.. If they suffer relapses they drift into the chronic class, hardly a credit to the art. The careless, off-hand treatment of these cases is liable to discredit medicine. They should be followed up to complete cure.

Routine study of throat reflexes in cases presenting any degree of dysphagia will occasionally be rewarded by early detection of

organic nervous diseases primarily manifested in the throat. Tabes and general paralysis may present early anaesthesia of the pharynx and larynx and the cause of the dysphagia is the loss of the primary reflex tion. In such cases the fluoroscopic examination reveals bismuth masses retained in the pyriform spaces, slow peristalsis all the way down, and if the anaesthesia be com- of deglutition simulating a positive obstruc- plete, involving the larynx one may find the bismuth emulsion in the bronchi. This emphasizes the fact that from the standpoint of neurology the prima via is well worth a very careful diagnostic survey.

Cardio spasm may be classified as primarily a nervous functional disorder. Some times it persists with remissions without producing a pathologic lesion but usually there develops a degree of dilatation and angulation at the hiatal orifice and then we have a very formidable disease condition. There may be an anatomical defect; too much of an angle at the diaphragmatic level, a weakness in the wall of the esophagus or a pressure kink from the edge of the liver acting through the diaphragm.

Casually observed in the early stage such cases may be labeled globus hysteric, but more often in the late stages they are considered to have organic stricture. Some are allowed to die as cases of malignancy. The early symptoms are regurgitation with sensations of more or less pain and pressure. They become morbid and depressed, lose weight rapidly and in time develop a cachexia quite like that of malignancy.

Dilatation may be the result of some anatomical weakness as stated, or it may be due to the cultivated habit of suppressing regurgitation—holding part of a meal in the esophagus from one meal time to another. The capacity of the dilated esophagus may be equal to one pint or more. The dilatation is usually an irregular spindle shape, often sagging to the right, like a pouch, below the hiatal orifice. Even in cases many years afflicted there is no organic stricture —no fibrous tissue nor over-developed constrictors. The angulation is the worst feature of the fully developed dilatation. This condition makes ordinary bouginage impossible and dangerous. The histories of a few cases will cover the important points.

Hysterical dipphagia. A woman of fifty presents symptoms like cardiospasm, which have persisted for years. It probably began as a globus. She regurgitates part of every meal and for six months has rarely swallowed water, has lost all desire for it. Loss of weight, 40 pounds. The fluoroscopic picture shows the lower half of the esophagus in spasm, the bismuth churning up and down in waves of reverse peristalsis. There is no dilatation as yet. A small olive was passed for diagnostic purpose, on the thread guide, five yards of which seemed well anchored in the bowel. She swallowed better. A day later she regurfiitated the string saturated with bile—a rather suggestive evidence that reverse peristalsis is a real factor explaining in this case the cause of the esophageal spasm. She describes a wave of distress from hypochondrium up to the throat.

It would be dangerous to attempt full dilatation in this case on account of liability of rupturing the esophagus. A few moderate dilatations produced a change. She swallowed liquids well, developed a desire for water and at the same time complained that solids would not go down easily. These psychic vagaries are characteristic. It should be mentioned that atropine seemed to check the spasmodic conditions, a confirmation of the diagnosis of vagotony. She improved daily for two weeks, but she is still under observation.

Case II. Cardiospasm. A farmer of about 40, sound and vigorous up to a period of about five years before his first visit, told the usual story of a gradually progressive inability to swallow food. Sometimes he could flush it through with copious draughts of liquids but the regurgitations increased year by year until he could hold a whole meal overnight and regurgitate it unchanged in the morning. He was emaciated and feeble. The fluoroscope showed a sacculation holding more than a pint.

By way of diagnosis the cardiac orifice was dilated by a large olive on the thread guide and he was temporarily so much relieved that he did not return for the full dilatation. Some months later he developed pneumonia, the epidemic influenza type, and an abscess formed in the lower right lobe. High temperature and starvation for several weeks reduced him to a mere skeleton and he seemed in quite hopeless condition. But he came to the hospital with the thread well anchored in the lower bowel, and a large olive was easily passed. Under forced feeding he improved rapidly, cleared up the pulmonary condition and recovered. But he has not had the radical treatment and will quite surely relapse.

This case illustrates the efficacy of the thread guide method as perfected by Plummer of the Mayo Clinic. A rapid moderate dilatation was all that this patient could endure. Blind bouginage is always dangerous and rarely succeeds in cases having dilatation. The esophagoscopic method, working in a sac full of mucus and debris is less reliable than the thread guide method—and far more cumbersome. One must aspirate and then hunt for the hiatal orifice and then dilate with a complicated instrument, a rather formidable procedure for a patient in extremis.

Case III. Cardiospasm. A woman of 35, of rather extraordinary physique and general good health, developed appendicitis which was duly operated. It seems that adhesions formed which evidently upset normal peristalsis and she suffered from local pains and colic. Later there were symptoms like pylorospasm, but she retained fairly good vigor until there developed typical cardiospasm with the usual decline. I saw her first during the fifth year. Loss of weight, 30 pounds.

She had acquired the faculty of checking regurgitation and had a moderate degree of dilatation, nearly a pint in capacity. After a few diagnostic dilatations, (using the thread guide,) to get measurements, she was given one maximum stretching by means of the Plummer silk bag and water pressure up to 30 feet, equal to about 14 pounds. It

caused very severe pain and there followed the usual stomach colic. But within an hour she swallowed a full meal. She regained 20 pounds in about three months and has had no recurrence of regurgitation.

This case is interesting as an example of reverse reflexes. Her own description of symptoms followed the spasmodic peristalsis from below upward—a wave of distress from right hypochondrisum up toward the throat—with aerophagia and belching ad nauseam. She was a hypochondriac with a reason. A recent letter, now a year after treatment reports perfect health.

Case IV. A farmer of about 50 had symptoms of cardiospasm over a period of three or four years. Regurgitation was intermittent—that is, he would occasionally, without nausea, eject the previous meal.

Fluoroscopic and later esophagoscopic examination showed a sac holding more than a pint—evidence that the disease had existed for a longer time than the regurgitation indicated. He was water starved as nothing had passed through for four days. Aspiration through the esophagoscope brought back about all that he had recently tried to swallow—more than a pint of water, egg-nog, milk, etc. It was not possible to get the string guide through nor was it safe to attempt dilatation on account of the active inflammation and the consultation decided on gastrostomy as the man was almost in collapse.

The local operation was performed by Dr. Jacobson, without shock and he was filled up on fluids for two weeks. The esophagus was cleared of debris of accumulated foods and the inflammatory conditions subsided to the degree that the hiatal orifice could be located and the bougie passed. There was no stricture resistance and as the dilatation shrunk, it was practical to pass the large sound without guide. He improved for several months and finally the gastrostomy opening was allowed to close.

The cardiospasm persisted and the bougie had to be passed daily. He gradually lost ground and died in acute general spasm, convulsions which seemed to start with violent abdominal contractions. The autopsy showed a dilated esophagus, no neoplasm, no organic stricture; endocarditis and a splenic lesion. The cardiospasm and starvation incident thereto lead to a fatal exhaustion.

A few words about instrumentation are in order. Cardiospasm with dilatation is not cured by ordinary bouginage. Many are made worse and hopelessly chronic by the stomach tube and even large bougies passed frequently to temporarily relieve symptoms. The tissues of the diaphragmatic portion of the dilated esophagus may be so flabby that it is risky or impossible to pass a large bougie or olive without guide into the stomach.

The diagnosis having been confirmed by all methods of examination full stretching is indicated. The average sized adult will stand about one atmosphere, hydrostatic pressure.

This seems a practical method and more safe than mechanical dilators in which the orifice is stretched up to a certain calibre with no definite gauge of the force used—to say nothing of the simplicity of the technique as compared with passing the complicated instrument through the esophagoscopic tube. It would seem more important to regulate the stretching by gauge of pressure than size. The control of the water pressure is perfect, the escape being regulated by the tube held between thumb and finger and with practice one can almost sense the process and degree of stretching. The pain varies but is a factor in deciding the water pressure advisable.

Retropharyngeal abcess in children occasionally burrows so low that it can cause extreme dysphagia as well as dyspnoea. The difficulty lies in the inaccessibility and low palpation and incision guided by the finger must be depended on. One rarely sees such cases where the esophagoscope is available—but the Jackson spatula is adapted to this work. There may be considerable difficulty in diagnosis in neglected cases but usually one can get at the sequence of symptoms—a primary throat infection, adenitis involving post cervical glands, stiff neck, low grade fever and later dysphagia and dyspnoea.

Good drainage is difficult in the low down abscesses, frequent probing necessary and often the dyspnoea persists, suggesting that the mediastinal glands are involved and are compressing the bronchi.

Peri-esophageal abscess is not very common and I have never had an opportunity to make diagnosis by the esophagoscope. Two cases draining into the esophagus have been seen—one of chronic type suggesting a broken down tuberculous gland with intermittent flow of pus over a period of months, the other recovered after two or three spontaneous evacuations. Both had spells of obstruction followed by regurgitation of pus.

Acute inflammatory conditions of the esophagus may be secondary to any of the acute throat infections ranging from simple esophagitis to Vincent's Angina.

I will mention one condition which may simulate foreign body obstruction. There is a form of myositis involving the esophagus which is rarely mentioned. The muscle lameness, burning sensations of mucosa like rheumatism of the throat may come on so suddenly as to suggest a foreign body. I have examined by esophagoscope and observed the red oedematous mucosa—and of course aggravated the symptoms thereby. No food, enteroclysis for a few days and large doses of salicyllates per rectum have promptly relieved the symptoms—a therapeutic diagnosis to be sure—but a

considerable experience with this type of esophageal disorder confirms the diagnosis.

Lye stricture is the next subject. Caustic potash and soda products find their way into many homes and there is no law regulating caution labels in the general trade. The druggist has to use the poison label for caustics but the trade can even go to the other extreme, for example, "Guaranteed not to contain acid or other corrosive." If my experience is any indication of the number of such victims the total must be considerable. I have four or five cases constantly under treatment. The 64th Congress started legislation to regulate this matter but the Commitee, Drs. Jackson, Arrowsmith and Hubbard, having this in charge, Section, A. M. A., have been informed that "all bills have been destroyed" and the difficulty is to get it started again.

One important question to be discussed is the early treatment. The region involved depends on method of ingestion. Most common is the liquid form—mistaken for tea. Next is powder form—mistaken for sugar or picked up off the floor by the baby. As sugar, it may be put in tea or coffee or spread on bread or as sweetening for tomatoes—careless or overworked mothers give all kinds of opportunities for such accidents. One rarely has the chance to use the antidote, a mild acid, but nature usually attends to that and thereby saves the stomach from harm—emesis saves many from a fatal lesion. I have seen three cases of fatal corrosion of the stomach and one adult who has a much damaged stomach.

The early treatment should be the same as for an acute esophagitis. It is difficult to decide when to begin bouginage. If too early one is liable to strip off the macerated mucosa and the softened muscle wall would yield very readily. On the other hand if one waits until there is sloughing and impaction of the damaged mucous layer there is liable to be sudden complete closure for a considerable period. Some children can be induced to swallow the thread and once that is in place, anchored in the bowel, treatment is comparatively easy. The trouble is that the case rarely presents for curative treatment until the stage of fibrous constriction is well advanced, and starvation in evidence. The Sippy wire guide started properly through the esophagoscope is quite safe and reliable as a guide for olives. In multiple strictures with some degree of sacculation between, one has to trust to the sense of touch and be very cautious, the wall being softened and thinned out. I have experienced one accidental perforation of the pleural cavity. This baby was in extremis, had only a few hours to live and I was over confident of getting a tube into the stomach. It went very easily into the pleural cavity. Autopsy a few hours later showed that the whole pleura covering the lower third of the esophagus was covered with a plastic lymph and the esophageal wall was sloughing out. The child was too far gone for gastrostomy—in fact, I mention this experience to bring out the fact that some cases are hopeless and any surgical effort is liable to hasten death. That picture of three inches of corroded esophagus ready to slough into the pleural cavity impresses the hazard of instrumentation in the esophagus in corrosive destruction. If possible one should first get the thread guide anchored in the intestines.

As stated, the Sippy wire with olives on the cable is a very satisfactory method of gradual dilatation. One has to be very patient and advance the size methodically and the intervals must be adapted to the conditions. It seems to me a process of maintaining a fair lumen until all inflammatory products are absorbed and the esophagus relined. There comes a time after one has worked along for months when it seems that the last cicatrix has given way and then the fibre bougie at longer intervals suffices.

I will mention in detail one case. An adult chemist who swallowed about half an ounce of concentrated sodium hydrate. Fortunately emesis was prompt and saved the stomach. The lower half of the esophagus was deeply corroded. I waited too long for acute symptoms to subside before getting the thread down. Rather suddenly the whole mucosa sloughed and impacted at the cardia. After a few days of starvation gastrostomy was resorted to. Two weeks later retrograde and direct bouginage was successful. Under the fluoroscope the ends of the bougies could be seen to pass each other at 10 in. from incisors. A year of systematic dilatation gave a perfect result.

Foreign bodies cause injuries to the esophagus which may result in extensive destruction. Pieces of impacted bone with more or less tissue attached are the most dangerous. Decomposition accelerates the sloughing of the mucosa and muscle fibres and the swelling makes extraction very difficult. Cases of this type having pain, swelling and fever tax the skill of surgery to the limit. The esophagus is very easily lacerated and abscesses burrow toward the

mediastinum.

The first step in removal of an impacted foreign body of the nature described is to make effort to dislodge the impacted point. This can be done by the hook shield which is passed below the fragment and drawn upward in such a way that the point is disengaged and the softened tissue protected. Then traction can be made with forceps with reasonable safety. This method applies likewise to large coins long impacted and also to open safety pins. The use of hooks in extraction is a very useful procedure and the shield hook is quite safe. Some impacted foreign bodies cannot be grasped with the forceps and others cannot be extracted by direct traction. The shield hook will release the buried point or edge and this also prevents laceration. These hooks are useful to accomplish turning as in the case of the safety pin—for instance having hooked the shield of the open safety pin, it can be turned on the point without extra stretching of the tube. All this implies that measurements on the plate have been taken, that is if the distance from the shield to the point equals the length of the pin then there is no extra danger in turning. If the pin be a large one then the shield hook must be used to cover the point as it is drawn upward. In my safety pin cases I find six in children under 10 months of age all extracted by the hook and partial turning method—and in only one was there any evidence of trauma. This child, seven months of age had a swollen neck for a few days due to the fact that the manipulation was made difficult and prolonged by the breaking off of the shield. I never had the courage to push an open safety pin down into the stomach (Jackson's method) and then extract it reversed—and really it seems to me an unnecessary hazard.

The treatment of lacerations should be mentioned. I usually give sterile liquids and bismuth. In adults I have used guaiacol in oil, 33⅓%, as an antiseptic and for relief of pain.

The fluoroscopic study is usually decisive even though the body be diaphanous, the checking or retarding of the flow of the bismuth or the ribbon like stream viewed laterally quite definitely locates a flat body .And also we have the fluoroscopic control method of operating.

This is a very brief testimonial to the X-ray but I take it for granted that we all appreciate the immense importance of Roentgenology as a factor in precise esophageal surgery.

DISCUSSION

P. M. HICKEY, Detroit: I wish to compliment Dr. Hubbard on his presentation of the subject, which was somewhat different than usually presented. It is not gathered either from the old or new literature. I always enjoy hearing papers by men who have done things themselves.

In regard to the use of the X-ray in the diagnosis of diseases of the esophagus, it seems to me the remark he made in the early part of his paper that there had not been much improvement in the treatment, called to my mind a case about 20 years ago. I was called to see a case where a man was supposed to have a peach stone in his esophagus, and the large bouge was passed down but he said he still felt the peach stone. Then the silk worm dilator was introduced and opened and pulled up and brought out several inches of mucous membrane and he had to have the esophagus dilated for several years afterwards. That is changed now with our methods of direct inspection and the aid of the X-ray. Every patient before attempting the introduction of the esophagoscope should have a careful examination of the chest so if there is an aneurism there you will know it and carefully consider the risk. They should be fluoroscoped in every position.

With regard to the use of bismuth for locating foreign bodies I object to that, possibly because in some cases it musses up the field. There are cases where it is possibly a good procedure, but if it does not show an object that will throw a shadow I think it is best to go ahead with the direct examination and look for the foreign body. We make a plate as a matter of routine. In the diagnosis of the foreign body the lateral plate is very useful. With improved technique we get better plates than formerly, and it is necessary to study these shadows very carefully. I saw one case at the hospital and I did not pay much attention to a little shadow, and it turned out to be a piece of bone which was afterwards removed.

I call to mind a case of chicken bone broken from the sternum of the chicken and lying crosswise, and the symptoms were referred to the gall bladder. The physician who brought her in was in doubt as to which it was, and in introducing the esophagoscope we found this thin, sharp bone.

With a malignant growth you will not have a complete closure of the esophagus, but will find that the bismuth will trickle through. In the diagnosis of malignant growth in the esophagus, a very thick solution of bismuth will be found efficacious. An ordinary thin solution will get by, whereas a thick mixture allowed to go through slowly will pick up irregularities where a thinner will not.

As to removal of foreign bodies under fluoroscopic control, that is at times a selected procedure which I would not advocate to the exclusion of direct esophagoscopic observation.

With regard to safety pins which children swallow, I push them into the stomach and let them alone. They will all pass. I have had six cases of open safety pins in children which have been pushed directly into the stomach or allowed to go there. (Illustrates at board). I remember one case where I was a little slow with the forceps and watched this thing go down and we could see no scratch there. And in these cases if the pin goes into the stomach I do not think you really should worry about it, because it is my observation, born out by Roentgenologists that it will not shut down on the point but that it will go through and be passed in time. One case we watched for three weeks, and six weeks afterwards telephoned that the pin had passed. That was the end of the case. With an open safety pin in the stomach you need not worry.

I was glad to hear the doctor speak in praise of the Plummer bag in connection with cardiospasm. The treatment by the passing of a bougee is little used and is dangerous and does not cure the patient. We get a good sizable dilatation with the bag and you have all symptoms relieved.

The case of perforation of the esophagus reminds me of a case seen years ago with Dr. Shurley. That was before the string method, and we tried to pass a bougie. A perforation of the lateral pharngeal wall took place and there was a fatal termination.

In one case of stricture which bothered us a good deal we were unable to get the string through. We tried to get the girl of 14 to swallow the string, but we were always able to pull it out the next day. In that case gastromy was done and then we passed the bougie and picked it up with the esophagoscope and attached the string and pulled it up through and had that for a guide and got quite a good dilatation. The patient got tired of the manipulations and came back in six months with exacerbation of the symptoms.

DR. HUBBARD, (closing discussion): I did not intend to say there had not been great progress made in this line of work, but I do think that in treatment of diseases of the esophagus we should systematize, standardize and keep better records and follow up these cases more consistently.

COMMUNITY CLINICS AND PUBLIC HEALTH

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Professor C. E. A. Winslow of Yale has given the following definition of public health: "Public health is the science and art of preventing disease, prolonging life, and promoting health and efficiency through organized community efforts for sanitation, the control of infection, the education of the individual in the principles of personal hygiene, the organization of the medical and nursing service for the early diagnosis and preventive treatment of disease, and the development of social machinery which will insure to every individual in the community a standard of living adequate for the maintenance of health." This is a very broad definition and admits of a broad interpretation as to the kind of social machinery it will require to insure every individual the maintenance of good health.

Public health has concerned itself in the past largely with the control of infectious diseases; public sanitation; control of the food and water supply; housing and living conditions including school and industrial sanitation; the general education of the public, etc. Our efforts in the past have been of such a nature that the results would benefit groups rather than individuals. For example: The improvement of a public water supply benefits the whole community rather than individuals. We have been concerned largely with community health rather than personal health.

We have assumed until recently that the responsibilities of public health should not concern itself with the personal health of individuals. Gradually, however, we are beginning to make exception to this rule. For example: Many communities are conducting tuberculosis clinics for the purpose of discovering early tuberculosis in individuals and consequently begin early treatment. Some are conducting infant feeding clinics, to teach mothers correct feeding methods. Venereal disease clinics are becoming more common as well as dental clinics, school clinics, etc. All these efforts are concerning themselves with the individuals more and more.

I wish to quote a few sentences from the report of Sir George Newman, chief medical officer of the Ministry of Health of England. He says: "Preventive medicine must not be understood to consist only of external sanitation."—"Preventive medicine to be effective must deal with the man, the whole man, as an individual as well as a member of the community"—"Whole groups of disease are neglected as far as prevention is concerned, for prevention has been too exclusively concerned with certain infectious diseases, and much disease is allowed to go by default, untended and untreated."—"The first line of defense is a healthy, well-nourished and resistant human body."

Preventive medicine must concern itself with the personal health of the people and more particularly the children, if we hope to develop a healthy and strong adult population.

I wish to bring to your attention a few facts as to the physical condition of our child population and also cite one or two principle causes of death as it affects children. I believe that the biggest opportunity for preventive medicine lies in this field.

The number of stillbirths is alarming. One in every 25 children born in Michigan is born dead. Much of this could be prevented if every expectant mother could be educated and given proper care during the period of pregnancy. This should be made part of the public health activities through prenatal clinics.

The death rate in babies under one year is also appalling. The average death rate in Michigan is about 93 per 1,000 births. Much of this no doubt can be ascribed to ignorance in correct feeding and clothing habits and general care of the baby. Public health can reach the well baby through infant feeding clinics.

Again children of pre-school age and school age have all kinds of defects that

are neglected. I again quote Sir George Newman, who puts these facts in clear language and they apply equally well to our own state. "The majority of the children of school age, are in most respects, healthy. That is the fundamental fact. Nevertheless, the actual findings and experience of a decennium and the medical examination of 15,000,000 children show that the physical impairment of these children is somewhat wide in distribution and serious in effect upon adolescense and adult life. Malnutrition, anaemia, defective vision or hearing, dental caries, and disease of special organs are either too prevalent or insufficiently remedied, with the result that a foundation is being laid for enfeeblement or subsequent disease." Of the children in attendance at school he says: "Upwards of 10 per cent of the whole are at a disadvantage on account of uncleanliness, and that 10 per cent also are malnourished. Then we come to disease. Perhaps the largest contributor is dental caries, which handicaps children almost as seriously as it does adolescents and adults. Not less than half the children are in need of dental treatment and a substantial number (not less than one-half a million) are urgently so. Again, upwards of one-half a million children are so defective in eyesight as to be unable to take reasonable advantage of their lessons. Next we must add diseases of the ear, throat and lymphatic glands, another quarter of a million in a relatively seriuos condition. Then there come the skin diseases, disorders of the heart, infectious diseases, and tuberculosis. Many of these children suffer from more than one disability, but a moderate computation yields not less than a million children of school age as being physically or mentally defective or diseased as to be unable to derive reasonable benefit from the ordinary form of education which the state provides."

The conditions found are somewhat the same as in children in our own country. From 75 to 90 per cent of our school children go entirely without any dental care. From 20 to 30 per cent have diseased tonsils and adenoids and about 10 to 20 per cent have defective vision. These are the outstanding things. Many other conditions are found as set forth in Newman's report.

It has become a well known fact that nearly one-third of our young men were rejected for military service because of physical defects of all kinds. We have a right to assume that these defects are there because they were not corrected in childhood and consequently laid the foundation for subsequent disease or impairment that may be permanent. Valvular heart disease is a good illustration of permanent impairment which often follows focal infections in tonsils and teeth. The focal infections can easily be removed; but it is impossible to correct the valvular lesion. It is extremely important to correct these little things in childhood, if we want a healthy race. Medical and dental clinics in every community is, I believe, the best method through which this can be done.

Tuberculosis clinics have demonstrated what relation they hold to the control of tuberculosis. These clinics have brought thousands of individuals in contact with a physician who otherwise would not be reached. The Framingham demonstration has clearly shown what can be accomplished by the community in tuberculosis control. The clinic is the central hub around which all the other work revolves.

In a similar way numerous other diseases can be controlled and will be controlled through community clinics. These clinics will not replace or interfere with private practice but rather supplement it. Tuberculosis clinics have never interfered with private practice. Neither will any other class of clinics.

The supervision of the general and personal health of school children should be one of the most important functions of public health agencies. This supervision should not be confined to the usual type of school inspection such as detecting contagious diseases, skin infections and the like and the general sanitation of school; but it should also include a careful physical examination of every child for the purpose of detecting minor and major physical defects and diseased conditions that may have an influence on their personal health.

The health of children cannot be maintained by dealing only with infectious diseases and by general educational work in the schools. Health is a personal matter with each child and each one must be studied and treated according to its individual needs. The general health conditions as pertains to a school or home may be perfect and yet the personal health of the children very bad. Personal health is what counts in the end. Environment no doubt has much to do with personal health. But environment is perhaps a comparatively small factor. If the personal health of children is bad in all probability there is something else wrong besides environment. It is well

to look to the children themselves. It may be a contagious disease or it may be improper feeding, infected teeth, tonsils or adenoids, or some other thing.

Education plays a very important part in developing good health. But education won't do it all. It won't clean up infected mouths, correct vision, stop tooth aches and the like. It requires corrective work by dentists and physicians to overcome these.

There must be a happy combination of educational work, general health supervision as pertains to school sanitation, controlling infectious diseases and also the supervision and direction of the personal health of each child in the schools if we hope to build up a healthy school population. That does not mean that the health agencies must treat every child that needs treatment. It means that every child should receive periodic examinations and the necessary treatment directed through private physicians and dentists and other agencies in the community prepared to do this work.

The city of Flint is making a determined effort to supervise the general and personal health of the school children. through a cooperative plan between the Board of Education and the Health Department. A brief description of this work may be of interest.

The general school inspection and physical education is in charge of eight school nurses and four instructors in physical education. These are all employed by the Board of Education and the work directed by the Superintendent of Schools and the Superintendent of School Nurses.

The Health Department employs one school physician and five full time dentists and 10 visiting nurses, who co-operate with the school nurses in vaccination work, in conducting the physical examination, etc., and in doing the necessary corrective work for all those children who are unable to obtain help through private sources. During the course of the school year we aim to give every child in the grades a physical examination. This consists of measuring and weighing each child and giving them an examination of the eyes, ears, nose and throat, teeth, heart, general deformities, evidence of malnutrition, etc. The work is done at the school building by the school physician and a dentist and school nurse. The apparently subnormal children who require a more thorough examination are referred to the Health Center or the private physician as the case may demand. Records are made of each case and the card filed in the class room. Notes are sent home by the nurses with the children advising parents of conditions found and every effort is made through follow-up work to persuade them to have these defects corrected.

The health department maintains clinics at the Health Center where nurses can refer children for treatment or examination as the case may demand. Three dental chairs are maintained at the Health Center and three chairs in school buildings. The latter are located in the outlying districts and means less loss of time for children from the class room.

It is estimated that more than four thousand children will receive dental care during the present school year. It is the aim of the dentists to remove and prevent mouth infection. This is accomplished by cleaning the teeth and filling those in need of it with amalgam, cement or enamel fillings, laying special stress upon the care of the small pit and fissure defects and the removal of infected teeth and roots.

The other physical corrections by the school physician and through the voluntary services by local practicing physicians consists of removal of tonsils and adenoids, refracting eyes and fitting glasses, treating skin diseases, correction of orthopedic deformities, chest and heart examinations and referring children to the open air school and open air rooms, directing of a dietary for children and such other treatment as each child may require. It is estimated that more than four thousand children will pass through the health center for examination and treatment other than for dental care during the present school year.

I do not want to convey the idea that all our clinics are conducted for the benefit of school children. The tuberculosis, venereal disease, prenatal, gynecological, nervous and mental diseases and drug addict clinics are necessarily almost entirely for adults. These are conducted by local physicians. The routine work such as writing of histories, filing of records, preparation of patients, etc., is done by the nurses in charge. In this way we are assured of more regularity and promptness in carrying out all the necessary details.

Occasionally I hear the opinion expressed that this school work will interfere with the work of dentists in private practice. Dentists in our city are doing more work for school children at the present time than they have ever done before. The records of the

school nurses show a marked increase in this respect. They are also becoming more interested in this branch of dentistry. If we give free dental care to our children and can preserve their teeth until adult life, we have made them ardent advocates for proper dental care. Free dental care among school children increases the work for private dentists.

This applies equally well to physical care along other lines. I can think of no better way in which to increase the work of the private physician than by doing free medical work among our school children. However, I do not want to leave the impression that we do other corrective work free for all school children. We try to direct them to their physician or to the clinic as each case may demand.

The personal health of the school children is a public health problem and community Medical and Dental clinics furnish the social machinery with which to supervise it. Private medical and dental practice can never supervise it as it is organized today. This is not a criticism of private practice. They cannot enter that field of activity. The criticism should rather be directed towards public health agencies which fail to undertake this work. This field of activity offers the best opportunity for effective work in prolonging and saving of human life and promises the brightest hopes for building up a strong and healthy race.

DISCUSSION

DR. C. C. SLEMONS, (Grand Rapids): I just want to add my experience while we are on this subject, in line with what Dr. Kiefer and Dr. De Kleine have said; and I want to go on record to this extent: Don't attempt laboratory diagnoses when you have symptoms of membranous croup. Hundreds of children lose their lives every year in Michigan by doctors attempting to culture throats that give symptoms of membranous croup. I don't believe in it. I don't think we should even attempt it, but give your antitoxin, and give it at once, absolutely in every case of membranous croup; don't attempt to rely upon laboratory evidence—not even for quarantine purposes, and certainly not for treatment.

DR. DAVID LITTLEJOHN, (Ishpeming): Mr. chairman, ladies and gentlemen: The subject which we have listened to from Dr. De Kleine is one of extreme importance; it is one of extreme importance not only to the individual, from the public health standpoint, but one just as important to the general profession. We are hearing a great deal at the present time in regard to the question of community centers, health centers, as being opposed in a large measure by the medical profession; but, just as has been said by Dr. De Kleine, this opposition comes largely from a misunderstanding. With co-operation between the health departments and the local practicing physicians, I think everyone (where the community or health centers have been established for the carrying on of clinics) will agree that the physicians in these places wouldn't wish them discontinued under any circumstances, because they find that where these have been carried on properly, under proper supervision, their practice has increased, rather than decreased.

With a tuberculosis clinic, for instance, there is bound to be a certain amount of education carried along with it. There is a considerable amount of publicity attaching to the carrying on of these clinics; the result is you will find most of the physicians will have an increased amount of physical examinations to make. That has been true, I know, in our own particular place. People who have had no idea of having physical examinations made, have heard of other people going to the clinic for examination. There the educational factor enters in, and they have gone to their own physician and submitted themselves for physical examination. An illustration serving to show that the clinics benefit the local practitioner.

The same is true in the case of child welfare clinics. Parents will take their children to their own family physician when they have been advised, and when they know that emphasis is being placed on the proper care of children, either in early age, or during the school period.

So the misunderstanding which has arisen is one which is easily corrected, wherever the clinic is being conducted. I do think, however, that one thing which Dr. De Kleine mentioned hit the nail right on the head, and that is, one cause of trouble has arisen from the fact that in some instances clinics have been conducted by outside agencies, not under the supervision of the health department. Now, I think we could probably cite some examples where that is true, and I know that there are some here today who can bear me out in the truth of what I state at the present time: That these private agencies are doing the work with the best of intensions, but their intentions are misdirected; they are carried on through the agency, probably, of some special individual—practicing physician. The other physicians immediately realize that where clinics are conducted in that manner, the benefits which will result from education will accrue largely to the individual who is conducting the clinic. That, I think, is absolutely true. It stands to reason that the practicing physician conducting a clinic of such a character, being dependent upon his private practice for his entire livelihood, would not, under ordinary circumstances, be liable to recommend them to go to somebody else to receive the proper care. While it is possible they may do so under certain circumstances, a certain amount of feeling must exist, and does exist among the other physicians in that particular community; and where it is so, under these circumstances, we shall find dissatisfaction; we shall find the best results are not obtained.

The effect of the community clinics on public health, I think, is largely educative. We are installing in the various clinics which are being organized throughout the different parts of the state, centers from which information emanates in all directions, and as this information is given out to the different individuals who come in contact with the clinic, it is carried away and distributed in turn to other ndividuals with whom they come in contact. In a very large degree, you will find that a great majority of our clinic cases are brought in as a result of others having first attended; and it is through this personal educative process that much of the good results come from the clinics.

Just as Dr. De Kleine stated, the clinics are not necessarily for treatment purposes. They are for purposes of examination and diagnosis. The proper use of the public health clinic should be to determine the condition, and refer that patient to the particular physician who is usually in charge of the family. If the family is one which requires clinical treatment, and does not have a private family physician, or cannot afford a family physician, then the question of treatments can be considered afterwards; but the function, to my mind, of the public health clinic, is not for curative purposes, but for diagnostic purposes, in order to determine and find out those cases which do exist,

in which treatment is required, and to recommend that the case be turned over to the care of the private family physician.

You might be interested in the manner in which I handle such a situation. When I make an examination at one of the clinics, and I find a case requiring treatment, I simply make out a duplicate copy of the record card, find out the name of the physician who is taking care of the family, and send it to him, advising the patient to go and see him. I don't undertake any treatment whatever in any of these cases. It is simply for diagnosis that the clinic is conducted.

Summing it all up, the value of these community clinics, from the public health standpoint, can hardly be overestimated, because it is one of the most important factors that we have, in finding life, either from the pre-natal, clear up to adolesout the disabilities which exist from all periods of cence, and advising in regard to the proper care and proper source from which they should seek curative treatment.

Now, we all know these conditions are extremely common throughout all periods of human activity, from early life up to old age, and it is the function of the health department to ferret out these conditions, if they have not been found previously, and to advise in regard to the proper method of having the cases properly taken care of.

The old idea that the duty of the health officer was to simply quarantine infectious cases is obsolete, and a remnant of the past ages. The function of the health officer, and the health department, should be the building up of public health in the community, rather than simply the isolation of cases already existent. It is in the care of these cases, such as come to us in the clinic, that we can get a great deal of benefit to the community—by the proper handling of them in the proper way. As I have said, I think one of the great causes of misunderstanding which has arisen between the practicing physicians and the health department, has been a question of the management of the clinics. I don't think there is any health advocate, anybody who advocates the use of community clinics, or health centers, who for a moment would in any way interfere with the ordinary practicing physician. What they want is co-operation with the physicians, rather than to antagonize, and I know that the paper we have just heard from Dr. DeKleine has emphasized all these facts, and I don't know that there is very much more I could say in regard to it. I know we have all appreciated Dr. De Kleine's paper, and I thank you. (Applause).

DR. J. A. HUMPHREY, (Lansing): We have a health clinic, too, at Lansing. Our trouble, more than anything else, is not so much the advertisement of it, but to keep it down. Lansing is magnificent, and provides us with a wonderful health center, and a wonderful program. Our health center has grown so much it is almost impossible for us to take care of the needs. At the present time we are running about five hundred cases a month, which is more than the two of us can really do. Our problem, therefore, is more to take care of a few cases properly, than to advertise.

Of course, we still have the trouble of convincing the powers that be, that money should be provided for public health. However, Dr. De Kleine is fortunately situated, and his aldermen have supplied him with money enough to run there very nicely; but I think the cities where this work has been started are going to have the same trouble as we did. However, I have inaugurated a system this year; I have asked each alderman, alone, to visit our clinic. We get them in there alone and show them what we are doing, and after a while they begin to see it; but don't get them up there in a body, because if you do, they will talk about how they are going to be elected next year. I think if you get them alone, you will do more good.

NOTES AND OBSERVATIONS ON THE ADVANCEMENT, DIAGNOSIS AND TREATMENT OF VENEREAL DISEASE IN THE BRITISH ARMY

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EXPLANATORY

The following notes were written during spare moments while in Ireland and afterwards in London in that "Room of Silence," the library of the Royal Academy of Medicine, while doing post graduate work with Mr. Sequeira at the London hospital. I am reading these notes at the suggestion of a friend who thought that they might be of interest to some of the profession.

INTRODUCTION

After observing the Venereal situation since 1914, I became interested in reviewing the prevalence of these diseases since the European Epidemic in 1494-5. It has been proved that Syphilis was brought into Europe by Columbus and his followers upon their return from the New World. There are no definite figures in regard to the extent of this epidemic, but from authoritative sources we can estimate its magnitude at that time. For instance, this disease incapacitated large numbers of the army of Charles VIII during his campaign in Italy. As was the custom, he had a large number of women followers and these women had been in contact with some of the men back from America, who were suffering from syphilis. These women spread the infection among the men of his army and they in turn infected the Italian women and because of this it was called the French Disease in Italy for many years.

Adventurers from all parts of Europe were the main portion of the army of Charles VIII. These men who were suffering with the disease brought it home with them and we see how the first big epidemic of syphilis was caused by war. As we go through the various reports of Commissions on Venereal Diseases since that time we see how each succeeding war has caused new epidemics of venereal disease, namely, the constant wars betwen Louis XII and Ferdinand and later the wars of Francis I with Charles V of England which accelerated the spread of venereal disease. Then the army of Crom-

well which invaded Scotland infected both the civilian women and nurses of the Lowlands.

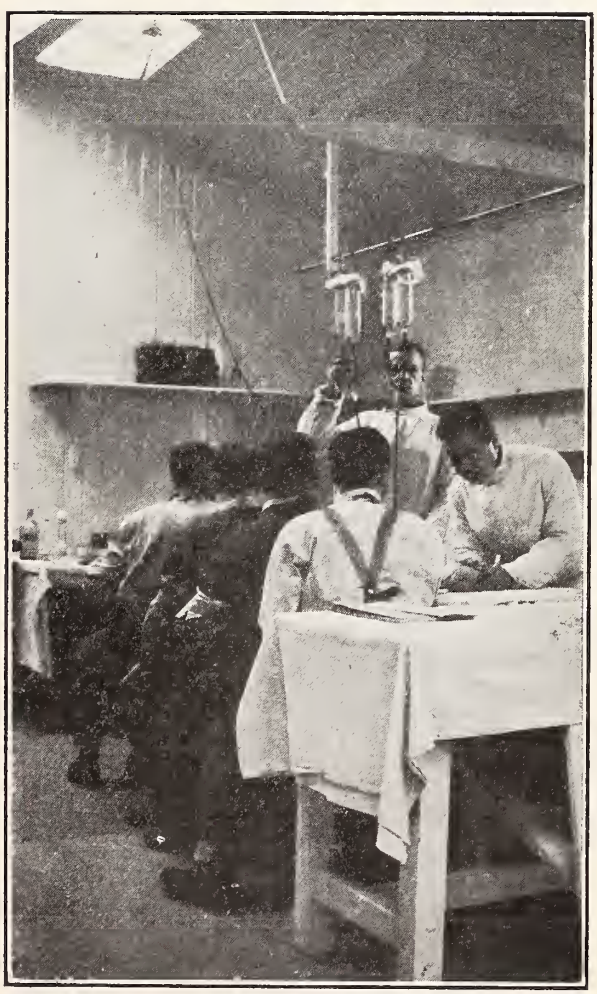
From the description of the symptoms of this disease at that time it seems to have been very malignant; perhaps due to the lack of resistance and immunity of the person infected. We know that the symptoms of any new disease are very severe during the first epidemic, as shown by our experiences recently with the Spanish Influenza. Col. C. H. Melville, in his "History and Epidemiology of Syphilis in the More Important Armies," states, that the men of the army seemed to suffer more severely than did the natives where the disease was contracted. Williaume speaks of this virulence by quoting from a report made by the Surgeon to the Duke of Alba during the wars between Spain and Portugal in 1579 and 1580, i. e. "Venereal infection assumed such malignant forms that he and his assistant amputated upwards of 5,000 penii." During the Anglo-Portuguese period of encampment in Madrid, in 1706, the women of Spain "did their bit" by infecting 6,000 men with venereal disease. Two hundred years later a paper was read before the Medico-Chirurgical Society of London, June 9, 1812, written by Inspector General Ferguson of the Portuguese Army in which he tells of "the most melancholy of all mutilations" suffered by the British soldiers during that time was the incident of venereal disease, which was greater "than the registers of all the hospitals in England could produce in the last century." The number of admissions in Regimental Hospitals from December 21, 1811 to June 20, 1814 was 176,067. Out of that number 4,912 were admitted for syphilis, or one case of syphilis for every 36 cases suffering from other diseases.

To offset the terrible effects of the epidemics described above, it is most interesting to note that the 20th Regiment of the British Army in North America in December, 1777, only reported two cases of venereal disease. The same regiment reported 48 cases for 1778 and, for the period 1776 to 1783 inclusive, during the American War of Independence, there only occurred "dropping cases."

To briefly show the fluctuation of the number of admissions for venereal disease in the British Army during the various campaigns and periods of peace, I have selected figures at different times from the statistical table in Vol. VI of Power's and Murphy's, "A System of Syphilis," which are as follows:

	Year	Strength	Total Admissions	Admissions Per 1,000
Syphilis	1817	24,440	1,068	43.7 %
Soft Chancre	1823	24,702	231	9.4 %
and Gonorrhoea	1866	48,060	2,882	60.0 %
on	1860	198,732	62,893	316.05%
Active Service	1868	168,149	39,836	237.09%
	1873	167,862	11,922	71.38%
Same diseases	1880	159,622	18,869	117.92%
in England	1886	188,739	23,928	179.37%
and abroad	1900	226,276	11,674	51.66%
	1908	215,467	4,139	19.19%

The variation in the above table can be explained in the following manner: During the periods of peace, inactivity and proximity to civilization, venereal disease was more prevalent. The same holds true for the incidence of venereal disease for other armies, the United States included. The exception is Germany, as the discipline in the latter army is more strict because military service is compulsory. In the armies of the United States and Great Britain the service has been by voluntary enlistment. Keeping these facts in mind, it was not unreasonable to expect in the war of 1914 an epidemic of venereal disease far surpassing any other in history. It is easy to see why this should be so when we think that



Treatment Room, Syphilis Division, Military Hospital, Queenstown, Ireland.

in France and extending along the Western Front we had present an Allied army composed of men from every corner of the globe; many, thousands of miles from home. An army of such a size and such a cosmopolitan one, was never known to assemble in, (comparatively speaking) so small a space. An epidemic did occur and Britain by her experience in former wars began actively to combat the disease in her armies. In this work Col. L. W. Harrison, D. S. O., R. A. M. C., was the leading light in instituting suitable methods for treatment, in organizing the venereal lines in No. 39 General Hospital, B. E. F., France, and later in establishing the venereal centers in the British Isles.

It is still early for authentic statistics with reference to the incidence of venereal diseases during the present war but enough information is at hand to know that wonderful progress has been made in preventing, diagnosising and treating this terrible disease of man.

METHOD OF EXAMINATION OF VENEREAL CASES

(a) The Venereal Disease Case Card as used in British Military Hospitals is very complete and compact.

(Front of Card)

.....Hospital .....Ward

Age Service Religion Disease

....

Regiment Coy. Reg. No. Rank Name

....

Date of Admission Disposal Date of Discharge

....

Summary (

1st, 2nd, 3rd attack or relapse Date and places.....
of three last.....
exposures .....

Main points in history—
Condition on admission—

(Back of Card)

Date	Treatment Local	Treatment General	Progress	Complications and their treatment

The size of the above card is 7x5 inches

It will be seen how the above card saves time and labor and also gives easy access for the purpose of obtaining statistics.

(b) Examination of Patients Suffering from Syphilis and Venereal Sores—It is not necessary to explain the uses of the upper part of the card other than that the history of previous venereal infection and places of exposure were carefully noted. The routine examination is on the following lines:

1. Description of sore or scar on genitals.
2. Glandular enlargement, general and local.
3. Skin and mucous membrane lesions, including anus, feet, hands and mouth.
4. Old scars, their history. All cases giving former history of syphilis were questioned with a view to cerebral symptoms and examined for nervous lesions, such as reflexes, test words, etc.

The back of the card is self explanatory. Under "progress" we inserted the results of dark-ground examination, blood test (Wassermann) and Cerebro-spinal Fluid examination. The latter was examined as follows:

1. Cell count.
2. Globulin.
3. Wassermann (in dilutions of 0.2, 0.5 and 1.0.)

Great care must be taken in making dark-ground examination for the Spirochaeta Pallida and too much cannot be said about its importance. It is common knowledge these days that an early diagnosis and treatment is absolutely necessary to secure good results. It is absolutely criminal for a doctor to give a patient an antiseptic for a sore before he has made several dark-ground examinations. As I used to hear Mr. C. H. Mills say so many times, we should recognize that in syphilis we have a forerunner of what is to follow, while in most other systemic diseases we are ignorant of its presence until the actual general symptoms of the disease have presented themselves. In making the film for dark-ground examination care and pains should be taken to procure the serum from the depth and at the edges, which show induration of the sore. The more superficially the film is taken the greater are the chances of missing the spirochaeta pallida and of getting mixed forms of spirochaetes, which often confuse the diagnosis. Failing to obtain pallida from the sore a puncture of an enlarged inguinal gland is a simple operation and very typical forms of s. pallida are obtained in this way.

The simplest technique for puncturing an inguinal gland for dark-ground is as follows: Select a spot on the skin an inch from the gland you wish to puncture, sterilize with iodine and then with a hypodermic syringe containing seven or eight minims of normal saline, pierce the skin with the needle and thread the gland on to it by holding the gland with the left thumb and forefinger and the syringe with the right hand. A way of ascertaining whether the needle is in the gland is by moving the latter sideways and if the operation has been successful the syringe will move in the opposite direction from that of the gland. Now that the needle is in the gland ,inject the saline and

massage the gland well for a few moments to make an emulsion of its contents before withdrawing the fluid. Remove the syringe and nedle and express its contents on several cover-slips and examine with the dark-ground illumination.

In the Army we often had men presenting themselves with a positive Wassermann. In some of these cases the only lesion suggestive of lues would be a placque of induration under a healed scar or previous ulceration on the penis, which upon palpation gave a feeling of a large coat button under the skin. When we desired to take the serum from this induration to substantiate the diagnosis of syphilis we used to pick up the placque of induration at its base with the thumb and forefinger of the left hand and, holding a Gillette razor blade with the right thumb and ferefinger (grasping the latter firmly to prevent its slipping) make a quick perpendicular downward incision to the base of the scar. By grasping the surrounding tissue hemorrhage could be controlled and only serum used on the slide. Quite typical forms of s. pallida could be obtained in this way. This operation is without pain.

It is routine practice in all Venereal Military Hospitals to observe all soft sores daily for s. pallida and skin lesions. From the experience of many thousands of soft sores Col. Harrison and Mr. Mills of Rochester Row, London, came to the conclusion that such patients should be kept under observation for eight weeks by weekly Wassermanns and by daily dark-ground examinations until the sore was healed, eight weeks being the maximum incubation period of s. pallida, in their observations. I always keep in mind that it is always possible (when someone reports a greater period of incubation) for the patient to have had sexual intercourse while under observation after the sore was healed. I can quite safely say that between 70 and 80 per cent of soft sores develop into chancre. Multiplicity of lesions does not exclude syphilis. I saw a case with Col. Harrison that had over one hundred chancres. This patient was a soldier and suffered from scabies.

The Wassermann modification used in all Military Hospitals of the British Army was after Harrison. We were always cautioned about the clinical interpretation of this valuable reaction. The reports were read from two dilutions. While one should not become a slave to the Wassermann, its value and accuracy is quite firmly established. However, it would not do to condemn a man with only a positive blood test and no clinical evidence of the disease. Col. Harrison so often said there was chance of error from the time the blood was taken from the patient to the time the Pathologist put the report on paper. In all cases of doubtful diagnosis we always looked well for congenital evidence and kept in mind that very often a meatal chancre is missed and a chancre of the tonsil or any part of the buccal cavity is often wrongly diagnosed. I consider every chronic ulceration of the buccal mucous membrane specific until I prove to myself that it is otherwise. It is advisable to keep in mind the possibility of malaria, trench fever or any tropical disease giving a positive Wassermann reaction.

However, I remember Private P. No. 60322, a case suffering from soft sores, under my care, who had given a repeated negative Wassermann reaction. One evening he developed rigors and ran a high temperature and presented a typical picture of malaria. I took blood smears which later demonstrated the tertian form of the malaria parasite, and at the same time blood for the Wassermann, which was most carefully done, and was found to be negative. He never had a positive blood while a patient in the Military Hospital, Spike Island, Queenstown, Ireland.

As we know, for some time after the discovery of the Wassermann, it was thought that treatment of any kind might render a positive blood negative. Now we know that one injection of any arsenical preparation tends to make a negative or weakly positive reaction strongly positive. Because the spirochaeta pallida seeking the perivascular tissues is "ferreted out" of his haunts, so to speak, by the "606" injection and the Wassermann substance is set free into the blood stream. The test was given the name of the provocative test and is useful in a latent Syphilitic.

Patients suffering from balanitis, herpes on the penis, Molluscum contagiosum, venereal warts, scabetic lesions on the glands and shafts of the penis were carefully examined and observed.

(c) Examination of Patients Suffering from Urethral Discharge. The cases with urethral discharge were described on the Venereal Disease Case-Card and using a rubber stamp, as shown below, for checking the information desired.

	R. .....
Discharge	Epid. L. .....
Noted .....days.	
Anterior Wash.	Prost. (R. Lobe.....
No. 1.....	(L. " .....
Urine No. 2.....	Arth. .....
Smear	
Comp. Dev.	

A simple and effective way to take a urethral smear is described by the Medical

Research Committee, which is to wash the meatus and surround area with alcohol, afterwards using a platimum wire to get the discharge from the fossa-navicularis. This method is simple and is valuable because one is less liable to get the mixed bacteria which are present around the glans penis.

However, a few words on the complement deviation or fixation treat for gonorrhea may put a new light on this much discussed test. As we all know, this test was first described by H. J. Schwartz, M. D., and Archibald McNeil, M. D., of Cornell University school. Since then there have been modifications of the original method, almost as numerous as the different ways for doing the Wassermann test. From a clinician's point of view it is useless to do this test on a case of acute gonorrhea until the third week. In chronic cases it gives an index to the patient's resistance and progress under treatment. The Thomson's modification of the above test is, in my experience, the best. He has a specially prepared antigen which in my association with him during his research two years ago on this antigen is as authentic as the Wassermann, because we were in a position to observe its reaction clinically in a large series of cases.

TREATMENT OF VENEREAL DISEASES IN THE BRITISH MILITARY HOSPITALS

(a) TREATMENT OF CHANCROID.

The treatment of this type of venereal disease is the most important of all. It is important because it is the only venereal disease where a mistaken diagnosis causes so much harm to the patient's after life. It should be common knowledge today that it is more than possible for the primary sore of syphilis to be multiple. In consequence of this Col. Harrison laid especial stress on the systems of diagnosis and treatment of soft sores. When a patient appeared for examination with an ulcer on his penis he was examined in the following way: Clinical signs of syphilis, i. e. glands, mucous membrane lesions, etc., a dark-field examination of the serum from the sore, and a Wassermann in spite of a recent history by the patient. For the first few days saline dressings alone were applied so as not to hinder the dark-field result. However, it was necessary to find a remedy which would not kill the s. pallida and at the same time would promote healing. After several experiments Dr. C. H. Mills found that powdered sulphur did the trick —in all cases it cleared up the discharge. As soon as the discharge from the sore disappeared an estrigent lotion was used to promote the growth of epithelium. There is nothing further new in the treatment of chancroids. I can say from many disappointing experiences that some types of this disease are very difficult to heal and at one time or another I believe I have used every drug in the pharmacopeia with the hope that one of them would heal the sore. There was one preparation which I most frequently referred to when in trouble and that was Intramine, a preparation made by McDonough of London. He first prepared this drug for the treatment of syphilis, but it was soon found to be useless. It contains a synthetic preparation of arsenic and sulphur, so with it one had the two-fold value of a stimulant and toxin neutralizer at the same treatment. A patient with chancroid was kept under observation for eight weeks by weekly Wassermanns and clinical evidence for syphilis.

Balanitis was treated by irrigations of normal saline and later, when it was quite certain that the patient did not also have a chancre, an irrigation of 1-5000 solution of bichloride of mercury was used.

Scabies of the shaft and glans of penis was treated with sulphur ointment.

Herpes of this region was treated by a boric acid dusting powder.

Molluscum contagiosum by incision and expulsion of the molluscum body and application of tr. iodine.

Venereal warts were removed by tying off the larger ones and later applying some caustic (either thermo or chemical) to the smaller ones. The best way to prevent a recurrence of this condition, after any irritating discharge has been cured, is to perform a circumcision.

Para-Phimosis—In all cases where it was evident that there was an acute infection present, a dorsal slit was performed immediately. The method used by us was the V-shaped incision with the apex toward the base of the penis. Many times such a condition as described above hid a chancre which was only diagnosed after several dark fields of suspicious areas. This operation was done with one-half of one per cent novocaine, taking care to block the area high above the place of infection.

Bubo, which is a common complication of soft chancre, was treated with the greatest care. Several methods were advocated from complete enucleation of the infected gland to making an incision across its surface similar to the old treatment for boils. In our experience the latter method produced a new complication which was more difficult to cure than the original disease. Consequently, we aspirated all cases of suppurating inguinal adenitis with great suc-

cess. The method is quite simple and is as follows:

No fomentations were applied and just as soon as we were certain there was pus present, a needle, with a large bore and containing several openings at the end to prevent clogging, was introduced in the healthy skin and the point was carried along subcutaneously until we perforated the gland. The contents of the gland were drawn off by producing a vacuum, either with a syringe or by such a method as is used to draw fluid from a chest. It was necessary to perform this operation upon several consecutive days but it always prevented the bursting of the Bubo and usually meant a cure in two or three weeks. The point of entrance of the needle in the skin was sealed off with collodion after each aspiration to prevent secondary infection. To prevent a sinus forming a fresh site was chosen each time an aspiration was necessary. The whole groin was daily bathed with alcohol and a dusting powder was used several times a day to prevent softening of the skin. It also prevented pyodermic conditions.

Patients often presented themselves with chronic sore throats and a very common cause for this condition and one that ran in epidemics was Vincent's Angina. The clinical feature of Vincent's Angina is an angry ulceration which gives very little discomfort to the patient and often the only objective symptom to the patient is a stiffness in the throat when trying to swallow. A diagnosis is easily verified by the dark-field, which shows the fusiform bacillus and spirillum of Vincent. Frequent applications of the following preparation, which is called Mill's Paint, was, in our hands, almost specific.

Rx.
Liq. Arsenicalis .....1 part
Ipecac .....2 parts
Rect. Spirits .....3 parts
Sig. Apply three or four times daily.

(b) TREATMENT OF SYPHILIS

In the treatment of Syphilis, a thing which is so often overlooked is the local treatment of the chancre. Before a penile chancre was treated at all the diagnosis was made or confirmed by the dark-ground illumination. As soon as the latter was established calomel powder was first applied, then if the location of the chancre was favorable for operation it was either dissected out or a circumcision was performed. This was the ideal method because it removed without doubt "the source of infection." However, this procedure was not always possible and where a chancre was inaccessible to operation active local application of suitable therapy was immediately started. It was found that freezing the chancre with Carbon monoxide snow and afterwards injecting the base and indurated edges with Hectine (a synthetic Arsenical preparation made by the French) using a hypodermic syringe for the purpose, produced excellent results with no injury to the surrounding healthy tissue, with the exception of producing a slight local hyperaemia. The penis is then dressed and bandaged in such a way that when the patient is sitting or standing the penis is held adjacent to the abdominal wall. The latter "tip" prevents pain and swelling of the prepuce. Hectine comes in small sterile ampoules containing about one cubic centimetre of fluid which is drawn up in a hypodermic syringe and, using a small needle, is injected as described above.

The general treatment of syphilis is perhaps more romantic than that of any disease and the progress in recent years, especially since the war, has been most beneficial. Mercury has long been considered specific for the treatment of syphilis but the extensive salivation with necrosis of the gums and alveolar processes which follow the intensive use of this valuable drug, which was used as a means of producing a cure in the old days, is now hideous and non-professional. Since the discovery in 1905 by Schaudim of the spirochaeta pallida there has been marked progress in the treatment of this disease. When Ehrlich (1909) after many experiments with arsenical preparations discovered "606" a new era in the treatment of syphilis was opened. When speaking below of "606" I do not necessarily mean the original Salvarsan, but as signifying all preparations of that series such as Arsenobillon (English), Arsenoenzole (Billon) (French), Kharsivan (English), Diarsenol (Canadian) and when speaking of "914" the series of NeoSalvarsan such as Novarsenobillon (English), Novarsenobenzol (Billon) (French), NeoKharsivan (English), Disodo-Luargol and Calyl. Discussion arose all over the world as to the value and safety of "606" in administration and many had the false idea that one or two injections would cure syphilis. Numerous courses of treatment were suggested—some clinicians after an unfair trial of "606" dropped back into treatment by mercury alone. It was soon found that a combination of mercury and "606" was the best course. By the kindness of Brevet Col. L. W. Harrison, D. S. O., R. A. M. C., I have had access to the different courses used at

the Briitsh Military Hospital, Rochester Row, London, England. It was of interest to see how gradually more "606" was used in the routine courses for early cases. At first one injection of "606" was given, followed by six injections of mercurial cream, each injection of the latter containing one gram of metallic mercury, then another "606".

When Col. Harrison went to France in the latter part of January, 1915, he immediately saw the importance of using more "606" because intensive treatment of synthetic arsenical preparations was found to be more efficacious in healing up secondary or tertiary lesions. Under the old course there was delay in the healing of the primary chancre, secondary and tertiary lesions which meant vast numbers of venereal cases being sent back to England, which was rather a serious matter when every man possible was wanted at the front. The course of treatment which he found most valuable at this time was as follows:

8 injections of 0.3 grams "606" and
8 injections in the buttock of mercurial cream.

Owing to the shortage of material, however, this was cut down to 6 injections of 0.3 grams "606" and the same number of injections of mercury. This course has been continued to the present time with slight variation, due to increased supplies of arsenical preparations and experience with the complications following intolerance on the part of the patient to the drug, which I will mention below. The point which I wish to make now is the reduction of the cases invalided home, with the result of sending back to the front in six or seven weeks' time men fit for full duty and absolutely free from spreading the disease.

The statistical table made up at No. 39 General Hospital, B. E. F., France, showing the number of cases invalided to England from France is as follows:

VENEREAL DISEASES INVALIDED TO ENGLAND

	Jan.	Feb.	Mar.	Apr.	May	Jun	July	Aug.	Sept.	Oct.	Nov.	Dec.
1915	671	254	55	45	39	30	35	20	18	25	35	26
1916	18	17	18	3	9	12	14	7	7	6	6	10
1917	4	7	3	1	2	1	7	10	4	7	8	8
1918	3	4	2	9	2	6	3	7		7	5	

The possibility of putting a man in fit condition so soon was a marked victory over the old treatment. Under the old method when mercurial treatment alone was used a medical officer would hesitate to pronounce a man fit for military duty under one year of treatment. The earliest time claimed when spirochaeta pallida is not found in the chancre when mercury is used alone, is three to four days. An injection of any form of the arsenical preparations, with the exception of Galyl, will render it impossible to detect spirochaeta pallida in the chancre after 12 to 18 hours.

To demonstrate the routine treatment in an ordinary case of secondary syphilis, I will copy the following order:

Routine course for ordinary fresh cases of syphilis, (to be interrupted in the event of dermatitis, jaundice or other signs of intolerance supervening. Each patient to be carefully scrutinized for signs of stomatitis or general malaise, his weight to be taken, and urine tested for albumin before each injection.

Day of treatment	Intra-venously	Intra-muscularly	Intra-veneously	Intra- or muscularly
	"606"	"914"	"914"	Mercurial Cream
1st	0.3	0.45	0.45	grain 1
4th	...	....	....	.....
8th	0.3	0.45	0.45	grain 1
12th	...	....	....	.....
15th	0.3	0.45	0.6	grain 1
18th	...	....	....	.....
22nd	...	....	....	grain 1
25th	...	....	....	.....
29th	0.4	0.6	0.6	grain 1
33rd	...	....	....	.....
36th	0.4	0.6	0.6	grain 1
40th	...	....	....	.....
43rd	...	....	....	.....
46th	...	....	....	.....
50th	0.4	0.6	0.6	grain 1
53rd	...	....	....	.....
57th	0.5	0.75	0.6	grain 1
Blood Test—If positive or doubtful, continue 14 days Potassium Iodine, then "Follow on Course" (F. O. C.) of				
82nd	0.3	0.45	0.6	.....
86th	...	....	....	.....
89th	...	....	....	.....
92nd	0.4	0.6	0.6	.....

If blood is negative after the first course, suspend treatment and if practicable repeat blood tests at intervals of three months for one year and six months for the following year. Tertiary cases with symptoms should usually be treated as shown above from the first to the 36th day, and then, if practicable, put on chronic mercurial and iodine treatment. The above lines of treatment do not apply to that of syphilis of the central nervous system, cases of which should be treated on individual lines. The principle in such cases is to commence very cautiously, increasing the individual dose gradually to 0.3 gram and prolonging the course until the patient has received, if necessary, a total of 4.5 grams. After the eighth injection of mercury, two months must elapse before mercury is given again.

When we first began to organize the special Military Hospital at Spike Island, Queenstown, Ireland, it was difficult to procure any large quantity of distilled water, which could be relied upon, for the administration of "606." Consequently, I used the following "914" course and by using a 10 c. c. record syringe where only a small quantity of distilled water was necessary, I found that the course produced just as good results as the ordinary routine "606"

course. It has been learned that any one of the "914" series is secreted from the bowels and kidneys so quickly that it is not considered good treatment to give it by intravenous method alone.

The preparation and examination of the patient before antisyphilitic treatment was thorough and painstaking. Before beginning teratment the urine was examined for albumen, casts, etc. He was questioned as to his previous health, whether he was a "bleeder" or not. His heart was examined and if his teeth were in a bad condition he was sent to the dentist who kept him under treatment while he was receiving his injection of mercury. This latter precaution saved much trouble and prevented salivation to a larger extent. I had a standing order posted in various place swith "hints" for the patients under treatment. These were as follows:

1. Brush teeth after each meal.
2. Wash mouth out (with the alum mouth wash found in each ward) several times a day.
3. Report any symptom which you notice out of the ordinary to the medical officer.
4. Keep your bowels well opened and take "opening medicine" the night before the day of your "606" injection.
5. Do not eat any dinner the day of treatment.
6. Try to smoke only 10 cigarettes a day, as smoking to excess will cause your gums to be sore.

Each patient was seen every other day and examined stripped to the waist and in this way any early sign of intolerance was immediately spotted. The urine was examined before each injection and at intervals the patient's weight was taken and noted. The patient's gums were examined before each mercurial injection.

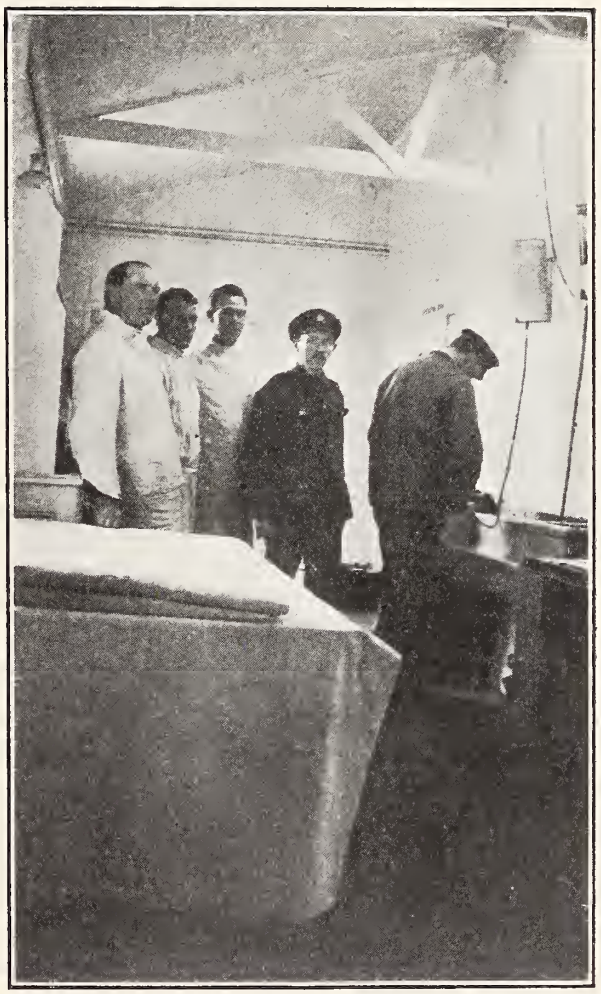
Course of Treatment at Military Hospital, Spike Island, Queenstown

	Intravenously	Intramuscularly	Calomel Cream—10 minims containing ½ grain mercury, intramuscularly
1st week	0.45 gm.	....	X minims
2nd "	....	0.45 gm.	X "
3rd "	0.45 gm.	....	X "
4th "	rest	....	X "
5th "	0.6 gm.	0.45 gm.	X "
6th "	....	0.45 gm.	X "
7th "	0.6 gm.	....	X "
8th "	....	0.6 gm.	X "

In cases where a doubtful positive Wassermann was found a follow up course of one dose of 0.45 gm. injected intramuscularly to two doses injected intravenously of 0.6 gm. of "914" was used.

The media used for the "914" when giving it intramuscularly, was a preparation of creasote and camphor (formula 4631 B. W. & Co., melting at 150 c.) in oil made by Burroughs and Welcome of London, and was found about as satisfactory as any other media tried.

Salvarsanised serum was also used at the Military Hospital, Rochester Row, London and was prepared in the following manner: Ordinary human serum was used and into one cubic centimetre was dissolved three decigrams of any of the "914" series—this was heated at a temperature of 27° c. for one half hour and then heated again for one hour at 57°c. It was then injected into the buttock when cooled. Mr. C. H. Mills found it very successful because practically no pain or stiffness of the gluteal muscles occurred and after a large series of cases has been tried he will, no doubt, report his results. I did not see during my association with Mr. Mills one case of an abcess forming at the site of injection when the latter method was used.



Chancre and Chancroid Treatment Room, Military Hospital, Queenstown, Ireland.

The site most commonly used for intramuscular injections was as follows: We selected a point two inches below the top of the iliac crest, i. e. a point on the extension of the mid-axillary line, for the first injection and the same point on the opposite hip for the second injection. When other injections were given, a point where there was plenty of muscular tissue, either anterior or posterior to the site described above was selected, alternating for subsequent ones as before. In subjects that have poor muscular development, one can take

the first site as a starting point and find a suitable location between the point of junction of the iliac crest and mid-axiliary line and great trocanter for the intramuscular injection. This area is more free from nerve endings and blood vessels. It might be just as well to mention that the needle must always be introduced alone because it can be ascertained whether it has penetrated a small blood vessel, also because it can be introduced with less discomfort to the patient. If one unfortunately injects some mercury into a vein and causes any untoward symptoms by causing an embolus in the coronary artery or lung, the injection of adrenalin chloride usually relieves. When injecting the dose keep the needle and syringe in one position to avoid breaking the needle. If we were unfortunate enough to break a needle while it was still in the buttock, we carefully kept the patient stationary, or if we desired him on a table we picked him up bodily, taking pains to keep him in the original position. When once a patient moves after the needle has been broken off the chances of removing it are considerably less without, of course, an extensive operation.

Cases suffering from late cerebrospinal syphilis were in most cases treated by intrathecal injections of Salvarsinised serum, starting with two milligrammes of the "914" series dissolved in the serum as described under intramuscular injections. It is not safe to give more than one injection every three weeks. Between these injections the patient was given the iodides and mercury by mouth. We had rather good results with this method of treatment at the Military Hospital, Rochester Row, London, but I am not prepared to say that it is the best way to administer "914" intrathecally. The treatment of early Cerebro-Spinal Syphilis was carried on by the "Dribbling course," which is one injection intravenously of "914" (0.3gm.) or 0.3 gm. "606" and four days later 0.3 gm. "914" intramuscularly or 0.3 gm. "606" intravenously and repeating these injections every four days, finishing the course at the end of 36 days. It was necessary to keep very close observation on patients under this course, observing closely for any sign of intolerance. During the rest periods large doses of potassium iodide were given.

Mr. C. H. Mills used the serum as described above as a medium for sub-conjunctival injections of "914" in the treatment of interstitial keratitis with good results.

TREATMENT OF GONORRHOEA

The drugs used for the treatment of gonorrhoea are much the same wherever one goes and like the treatment of tuberculosis new methods come and go. There was not a great deal of difference in the British army method in the treatment of Gonorrhoea from what one sees in any venereal disease hosptial. The exception in the army where there is discipline is that one has greater oppotrunity to see that the treatment is carried out in the proper way and at regular hours and in this way the patient has less complications and is more sure to enjoy future good health. Many things were tried such as sodium bicarbonate irrigations. a solution of 40 grains to the ounce, which was used largely with success in the New Zealand army. We know the gonococcus grows and thrives in an acid media, so, theoretically, the above treatment should be ideal and possess the added advantage of being very soothing to the inflamed mucous membrane. Flavine in one-half percent solution irrigations was used at the Early Treatment Department of Rochester Row and was claimed to render the pus sterile in two to three days. However, no definite results have been published as to whether it is more efficacious than the orthodox treatment of 1 in 10,000 and 1 in 5,000 potassium permanganate irrigations which has been found by long experience to be the most beneficial. I am not going into detail about the treatment of chronic gonorrhoea, as all the other methods such as bougies, sounds, prostatic massage, etc., carried on in the British Army can be found described in any text-book. However, I must say that Thomson's detoxicated vaccine has opened a new era in the treatment of gonorrhoea. This observer has spent a great deal of time growing and experimenting on the gonococcus. In his experiments he reasoned that it was the non-toxic substance contained in the germ that produced the antibodies to the gonococcus and that it was the toxic part which caused the reactions when the ordinary vaccine was given. Consequently he began trying to discover how to neutralize this toxin and at the same time not to chemically change the non-toxic substance which really increased the patient's immunity. After two years of research this was accomplished. At first he experimented on animals and found that much larger doses or numbers of units could be given without causing any general reaction. Since that time the vaccine has been used as routine treatment at the Military Hospital, Rochester Row, London, and at the present time success is reported by both Lees and Thomson and very soon some very important results will be published. I, personally, used the detoxicated vaccine with good results

but up to now I am not prepared to say anything definite as to its ability to permanently cure all cases of gonorrhoea. The following course is recommended by David Lees.

1st	day	2500	million	units
3rd	"	2500	"	"
6th	"	5000	"	"
9th	"	5000	"	"
12th	"	7500	"	"
15th	"	7500	"	"
18th	"	10000	"	"
Total.....		40000	"	" in 18 days.

This course causes no reactions but I would advise that one should go a little bit easier on the dosage, especially in women. The urethral discharge on all the cases reported by Mr. Lees was stopped inside of 18 days.

It was advised by David Thomson to follow all cases on this vaccine treatment with the complement fixation test as it was found that it indicated the progress of the patient's ability to produce antibodies to the gonococcus. This was done by weekly increasing the dilutions of the complement used in the test. All cases showed a marked rise in their power of resistance; going as high as eight or ten plus. As David Thomson says, when this test is again negative it gives us a means to ascertain positively that the patient is free from gonococcal infection, a very important and satisfying thing when a question of marriage is at stake.

If the success, which now seems absolute, of the detoxicated vaccine continues, it will prove a wonderful weapon in the anti-gonorrhoeal treatment in women. The latter cases are, as every one knows, the most unsatisfactory of all diseases to cure.

The method, however, which is in vogue at most venereal stations to indicate whether a patient is cured and fit for discharge from hospital is by showing two negative reports on a smear from the urethra, taken the first thing in the morning before the patient has passed urine. This was always preceded by the passing of sounds and massaging the prostate two days before each smear was taken. I think that all will agree that this way of testing is first class and as nearly perfect as is practicable in most cases. In all cases, where there was a persistent gleet in the morning, a urethroscopic examination was advised, taking especial note whether all follicles were free from inflammation and that there were no pockets of puss in congenital false passages, etc. In chronic cases with a stricture the gradual method of dilatation with sounds was used in all Military Hospitals.

I spent nine months as assistant to the Genito-urinary Specialists of the Aldershot Command, England, and we did hundreds of cystoscopic examinations, ureteric catherizations for the diagnosis of renal function and the passing of opaque bougies for X-ray diagnosis, but there is notihng new of any great interest to report from this experience.

EARLY OR PROPHYLACTIC TREATMENT OF VENEREAL DISEASE

Since venereal disease was known some form of early treatment has been used. Even the Jews before Christ made it a religious ceremony to perform circumcisions on all their people. This has proven to have been practicable because it is impossible for them to get balanitis. However, I have seen them suffer from other forms of venereal disease. It was Dr. Canton, who, during the reign of Charles II, invented the "Condon" French Letter or French Safe, as it is known in America. Sir Wm. Forsythe, a British surgeon, on the other hand, was the first medical man who offered a medical form of prophylaxis for venereal disease. He advocated the application of inunctions of mercurial cream to the genitals before coitus, but well massaged.

I think that the Anglo-American race have been rather slow in recommending a routine treatment to prevent venereal infection, because we are a great deal like the ostrich and think by burying our heads to the necessary evil of promiscuous cohabitation, the disease will take care of itself. The French and Germans were the first to make early treatment compulsory. Each soldier in the above armies is issued a packet containing 33 per cent calomel cream and some form of a silver salt for the prevention of gonorrhoea. The Colonials (Canada, New Zealand and Australia) were the first of the British Army to compel its men to take precautions against this terrible infection. Col. L. W. Harrison worked very hard to accomplish the early treatment in the Imperial Army, but it was not until 1917 that he really did succeed. At first the men were issued tubes of calomel ointment, etc., and later medical officers were appointed to visit each camp and lecture on venereal disease and its prevention. This was followd by each camp having an early treatment room with an orderly in attendance for 24 hours. The maintaining of an early treatment room, however, was purely arbitrary, so some places were conducted better than others. Today and the last six months of the war a routine method of early treatment was advocated by the War Office. Col. Harrison has done a great deal in pushing the movement of having early treatment centers for the civilian population in the British Isles.

The Australians issued a tube of 33 per cent calomel cream and at first a tube of argyrol 10 per cent, but they found that the latter soon deteriorated, so like a film for a kodak the date before which the ointment must be used was printed on each packet. They afterwards put the argyrol in solution in a bottle. The Canadians and New Zealanders had much the same method.

The Cenral Hospital, Litchfield, England, found that out of 1.292 cases of venereal disease only 5.41% had used prophylaxis. On the whole early treatment has proved very satisfactory and in the Canadian Army where it is well carried out they report that out of 5,000 men who are stationed in London there are only two to three cases of all venereal diseases reported each week.

I think that the success of the Canadians is due largely to the personal appeal that is made to the men, as they are posted in the London District, for their co-operation to report to the Prophylactic Station before and after intercourse. I was fortunate one day in being present in the Senior Medical Officer's office, at an interview between my friend Capt. McKie, C. A. M. C., and two non-commissioned officers who had just reported for duty in the London District. It was explained to them that they were in a large city where temptation met them at every step and they were cautioned that seven out of every ten girls in the streets were infected with venereal disease. If, on the other hand, they did desire to stay with one of these girls they were asked to report themselves before going out with the girl for the application of calomel ointment. They were also told that they must immediately, after intercourse, wash off the penis and scrotum well with soap and water and to again apply the ointment which was furnished them in a tube and to report as soon as possible back to the Prophylactic Station for antiseptic injection into the urethra. In this way each was impressed with the sincere effort on the part of the army to help him and he in turn did his part by reporting as directed.

It was further found at the Central Hospital, Litchfield, that 15.0% of the cases of venereal disease was contracted from prostitutes, while 76.0% of all cases were contracted from amateurs, namely girls from private homes or who had committed the act for love or charity and who did not understand how to take care of themselves.

.21% congenitals
.99% accidentals
2.95% doubtful infection
4.6% wife infection

The same rate has been reported from the other venereal hospitals. I think that by the time all statistics are reported, no one will dare question the value of early prophylactic treatment.

It is a question, however, by advocating early treatment, whether we will be guilty of encouraging promiscuous intercourse, but the latter has been going on for so many centuries that I do not think we will be guilty of any indiscreet act.

The method for early treatment carried out in the British Army is inunctions of calomel ointment (33%) before and after coitus with also the insertion of some of the ointment up the urethra by putting the end of the tube, which is pointed, in the meatus and instilling the drug. This is followed as soon as possible by micturating and reporting at once to one of the various Early Treatment Centers and having a good irrigation of 1-5,000 potassium permanganate.

I have visited various venereal hospitals, but the best arranged and best equipped of them all is located at Spike Island, Queenstown, Ireland. Col. H. C. Donald, R. A. M. C., supervised its arrangement and applied many original ideas to make the hospital as nearly perfect as possible. Through his kindness I will be allowed to briefly describe its treatment rooms.

The Syphilis Division had an examination room, which contained the microscope and dark-ground apparatus, tables, etc. Between this room and the "606" treatment room was a waiting room for the patients who were either waiting their turn for examination or treatment. The treatment room was washed every day with an antiseptic solution to prevent infection and the room was used for no other purpose. We had enough equipment to give six patients "606" and "914" treatment at one time. Off from a short passage we had our soft chancre and bubo treatment room with irrigation apparatus for both saline and bichloride of mercury used in the treatment of Balanitis and Phimosis. Leading from this was our operating room for circumcisions and any clean operations. Every room was washed daily with an antiseptic solution to guard against infection.

The Gonorrhoea Division had much the same arrangement. A real good feature of this division, however, was its irrigating room, which was equipped for the treatment of fifty gonorrhoeal patients at one time. The nozzles were sterilized in boiling water for 20 minutes before use and were issued to the patient as he presented himself for treatment, by the orderly in charge. The patient then irrigated himself, after which he washed the nozzle out and handed it back

to the orderly who put it into the sterilizer. A medical officer instructed each patient how to use the irrigation apparatus and from time to time ascertained whether the patient was doing it properly. The orderly in charge of this room had a list of the patients under treatment and checked his name after each irrigation. All cases failing to turn up were listed and this list was handed to the Ward Master who saw that the delinquent ones were rounded up. These irrigations were by syphon thereby doing away with the clips for shutting off the irrigating solution. Each patient was equipped with a rubber apron with a hole in the center large enough to slip over the penis; the patient stood over a long trough (two feet six inches high) which was lined with a non-corrosive metal and draining into the sewage.

With the treatment rooms equipped as the above and with a first class staff of orderlies it was possible to attain a very high standard of efficiency.

I think most of us realize that we must interest ourselves, as medical men, in the effort to improve the method of prophylactic treatment of venereal diseases in our cities. It comes in as a big factor in the reconstruction period which has followed the war. I was interested to see the big movement which was launched by the National Public Health Service, to install in cities of over 20,000 inhabitants suitable prophylactic and Venereal Centers, throughout the United States. I learned this through an article published in "Collier's Weekly" by Mark Sullivan entitled "America's Fight on Disease." Few realized before the war just how much venereal disease existed in our cities. Dr. R. C. Jamieson, in a letter to me while I was in England, written in the summer of 1917, said he had not realized before his work on the Drafting Board in Detroit, that there was so much disease among our young men. So all of us have learned much since April, 1917. Each one of us must do his part and may I say that education is the key-stone to success and members of the medical profession need teaching along venereal lines. I was very much surprised to see so much ignorance among the Irish medical men who were sent to me in Ireland for instruction in venereal diseases. And judging from some of the mistaken diagnosis of secondary syphilitic skin eruptions that were sent into the hospital shows that more medical men must know the A. B. C's of genito-urinary diseases. The British army, in view of future civilian work, sent all newly joined medical officers to the venereal hospitals for instruction and already success has been accomplished in many cities of the British Isles as the result of the instruction.

1536-8 David Whitney Bldg., Detroit, Mich.

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SURGICAL TREATMENT OF SADDLE NOSE AND MALIGNANCIES*

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The discussion of a subject of considerable scope is attempted in the few minutes allotted to this paper. Consequently one must neither deal with historical resumes nor evolutions of technic, however interesting, but rather with procedures based on sound surgical principles producing results of definite known value. Questionable and obviously bad technic will be indicated frequently but not discussed.

Saddle nose is a term covering a large group of cases which are the cause of grave mental, and frequently, functional distress.

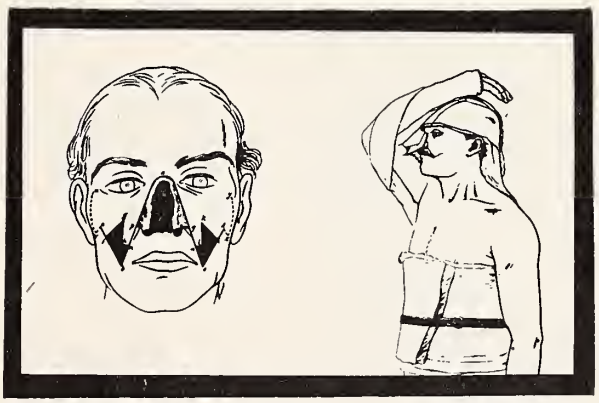

Fig. 1. French and Italian Methods.

whether the etiology be infective, traumatic, or specific. The deformity has but one meaning to the precocious lay mind—a meaning which has driven hundreds of tormented people to the beauty quack and hydro-carbon specialist and has produced numerous corrective surgical procedures in various parts of the world. Most of these surgical procedures have failed because their basic motive has been cosmetic improvement without consideration of the fac-

*Read at 56th Annual Meeting, Bay City, May, 1921.

tors underlying the deformity. It may be well to diverge at this point long enough to state that any nasal deformity, whether it be a saddle, a hump or one of the varied tip deformities, which is sufficiently marked to attract the undue attention of society demands the careful thought and the best ef-

Fig. 2. Traumttic Saddle and Deviation.

fort of the surgeon. Such deformities frequently underlie grave psychic disturbances and unfit the individual for his function in life.

The treatment of these cases depends upon their etiology. The purpose of the treatment is restoration and this includes function as well as cosmetic appearance. In most cases, one is limited in the matter of function to the establishment of free air passages and the removal of contacts and resulting pathology.

A few general principles which govern restorative surgery in this neighborhood may be discussed before their application to types of cases is considered.

The patient's general physical condition should be fully appreciated. The nose should be carefully examined inside and out to determine the condition of the covering, supporting and lining tissues. Where large losses have occurred, it is wise to make a plaster mask of the part and related areas which may be used at one's desk in planning the repair. Having accurately estimated the loss in any of the three elements, one selects the proper tissue for repair and the method for transferring it.

Two general methods for securing covering and lining tissue are available.

A—The "French Method", consists of sliding or stretching of a flap with little twisting or torsion of its pedicle. Such flaps serve to mask a loss of substance but should never be used in large partial or total losses of the nose, because rapid flattening and deformity result. A lining of mucus membrane or skin must always be supplied when this flap is used in the repair of a cavity. (Fig 1.)

B—Interpolated flaps. Four types may be considered.

1. Flaps from the immediate neighborhood, either single or double, with a pedicle which is rotated, twisted, bridged, or tunneled. Such a flap from the forehead, i. e., the "Indian flap"—is the method of choice for nasal covering.

2. Flaps from a distance carried on Gillies tubed pedicle. Perthe's method outlining, dissecting and resuturing the flap in its original bed is usually combined with this procedure.*

Fig. 3. Traumatic Saddle.

3. Free flaps or grafts. These may be skin, fat, fascia, bone or cartilage.

4. Flaps transferred on a "carrier,"

*Ferris Smith—Journal of A. M. A., Dec. 4, 1920.

usually the arm. This is essentially the "Italian Method" of rhinoplasty. In the light of present knowledge, the method has nothing to recommend it in nasal or facial repair and many things to condemn it. (Fig 1.)

The source of material is selected with the idea of the amount required, its quality, proper blood supply, etc., clearly in mind.

One has now to consider the relative merits of supporting substances for the ridge, columella and alae.

A—Organic.

1. Periosteum had a brief popularity, but its use has been abandoned.

2. Bone from the ribs, tibia and pelvic crest enjoys a certain popularity in some sections. Free plants of bone, with or without its periosteum, into the soft tissues is slowly absorbed. Bone which is turned with a flap without separation of its periosteum but unattached to other functioning bone, is partly or wholly absorbed, leaving a dense scar which furnishes some support. The difficulty in shaping or handling bone under these conditions practically excludes it as a means of support.

3. Cartilage is the ideal supporting substance. It has no blood vessels and lives easily by lymph absorption with or without its perichondrium. The supply of rib cartilage is ample to meet any need, it is easily available and is readily modelled to meet any requirement.

4. A combination of cartilage united to bone is strongly urged by some workers on the ground that it most closely approximates original conditions and that the bony union obtained fixes the implant in its desired position. Such a piece is obtained at the costo-chondral junction in a rib. Theoretically, this makes an ideal implant but practically one must meet the objections already urged against bone and suffer the disappointment of frequently lost implants.

5. Fat. This should be planted in excess of requirement without pressure, in a single sheet, if possible, and lightly sutured to its bed. It is only of value in filling small depressions.

B. Inorganic Supports.

1. External Protheses serve a valuable function in furnishing temporary support for the repair of soft parts and, occasionally, may be left permanently for this purpose.

2. Internal Protheses. Years of experience with every variety of inorganic substance planted in soft parts have served to prove that only exceptionally is a foreign body kindly borne by the tissues. Gangrene, skin atrophy, or expulsion of the piece has been the usual experience. There are still enthusiastic supporters of hydrocarbon preparations and those who make strong claims for celluloid; but, after all is said, both are foreign bodies.

These principles may now be considered in their application to individual cases.

A. Traumatic Saddles.

These cases result from impacts of varying violence producing depressions and deviations with or without loss of substance. The fractured and displaced bone and cartilage serve a valuable function in repair. In those cases where no loss of substance has occurred and the saddle depends solely on displaced support, one may adopt either reconstruction methods or restoration. To reconstruct, the supporting parts may be mobilized by the use of saws, cutting and fracturing instruments through intranasal incisions after the methods of Carter, Joseph, etc. The septum is resected and

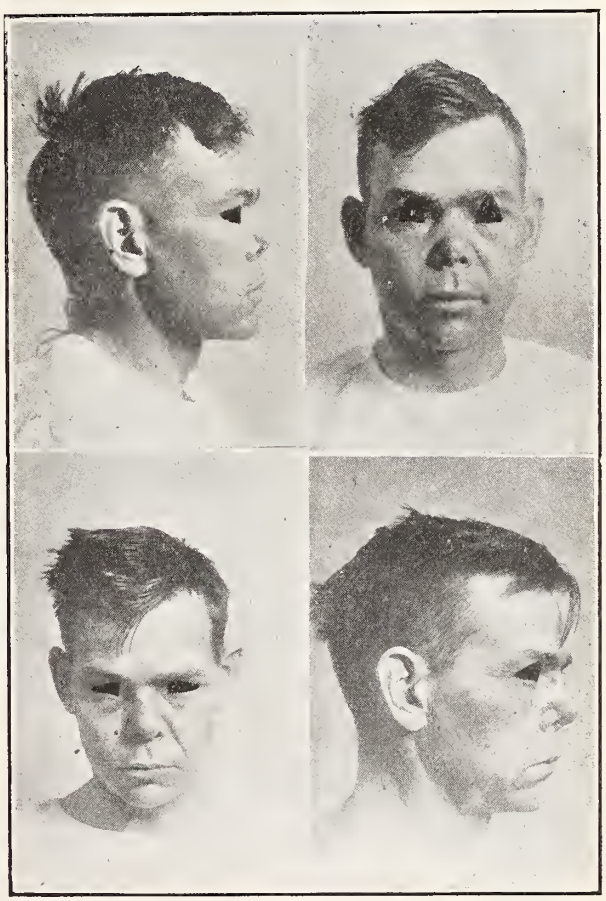

Fig. 4. Leutic Saddle.

the parts supported on proper splints.

To restore the cosmetic appearance and respiratory function, one first resects the septum and later plants properly prepared costal cartilage in the ridge, or columella or both. This should be acomplished through intranasal incisions whenever possible, but may be done through a quarter-inch glabel-

Fig. 5. Specific Saddle.

lar incision or through one made in the mesial end of the eyebrow. Every effort is made to avoid visible scars.

Case 1. (Fig 2.) Depressed and deflected ridge with intranasal occlusion following automobile accident. Submucus resection. Costal cartilage planted in the ridge and columella through intranasal incision. This implant has been made very thick in its middle portion to prevent bending by the pull of the elevated covering, with the intention of removing the "hump" after a number of weeks.

Case 2. (Fig 3.) Vehicle accident during youth. Submucus resection. Later implantation of costal cartilage in ridge and columella through intranasal incision. No visible scar.

Case 3. Saddle following gunshot wound. Removal of scar. Lining secured from border skin by use of hinged flaps. Covering supplied by Wolff grafts. Later insertion of costal cartilage in ridge.*

Case 4. Three-quarters of tip lost in accident during infancy. Incision from one lateral border to the other at the free margins of nasal processes and nasal bones. The lower segment has been dropped to the normal level of the tip and a columella fashioned from the remaining stump. Skin covering has been sutured to the lining. Stage two will consist in turning up a small skin flap for lining and covering the total defect with a small Wolff graft. This will produce a smooth, well balanced nose of pleasing appearance.

B. Infective Saddles.

The deformity in these cases always results from the loss of one or more of the nasal elements. If the loss is recent, restoration may be accomplished by the implantation of cartilage without fear of distortion by subsequent scar contraction.

Case 1. Saddle in young woman following a septal abscess during influenza infection. Repaired by cartilage in ridge five weeks following the cessation of suppuration.*

Cases of longer standing demand other treatment. This will be discussed in the following consideration of leutic saddles

C. Specific Saddles.

"Many procedures for the correction of this deformity have been practiced in all parts of the world. The failure to secure a pleasing result may be attributed to a lack of recognition of the loss producing the saddle and the effort to merely raise the skin with some supporting substance.

"The obvious loss producing the scar with its attendant contraction follows gummatous ulceration of the mucosa, bone and cartilage. This must be the first point of attack. The scar is freely excised, either through the nostrils or through an opening under the lip, the raw area skin grafted over

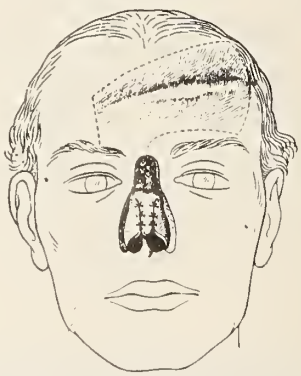

Fig. 6. Nelaton Method.

a supporting splint, which may be fastened to the teeth or wholly confined within the nose. After the skin is thoroughly organized in its new position, cartilage support may be placed either in the ridge or collumella or both."*

Case 1. (Fig 4.) Patient requested the "maximum result obtainable in 10 days hospital residence." Scar has not been removed. Repair effected by the use of a very heavy cartilage implant in the ridge supported on a similar columellar implant resting on the septal spine. Note that the ala is held to the free border of the nasal process by scar. The result of the proper method of treatment is shown in case 2.

Case 2. (Fig 5.) Saddle following submucus resection for correction of gummatous deformity. Loss of entire septum and columellar cartilage. Scar removed through opening beneath the lip. Skin grafted over splint. Costal cartilage in ridge and columella.*

Malignancies of the Nose.

"The distress, both mental and physical, occasioned by various malignancies of the nose is too frequently noted to merit discussion. The failure of local treatment of various sorts and of both the roentgen ray and radium in many of these cases in notorious. The knife is usually the last resort.

*Ferris Smith—Journal of A. M. A., Dec. 4. 1920.

*Ferris Smith—Journal of A. M. A., Dec. 4, 1920.

This entire cycle should be reversed. These patients should have preliminary exposure to Roetgen ray or radium, early operation and further exposure to the ray or radium."*

One has in mind particularly the squamous celled types which are little affected by radiation. The rule should also apply to the basal celled types, to the various sarcomas and to lupus, actinomycosis, etc., which do not show definite evidence of yielding to appropriate treatments. All too frequently these cases are referred in a hopeless condition or after much scarring with

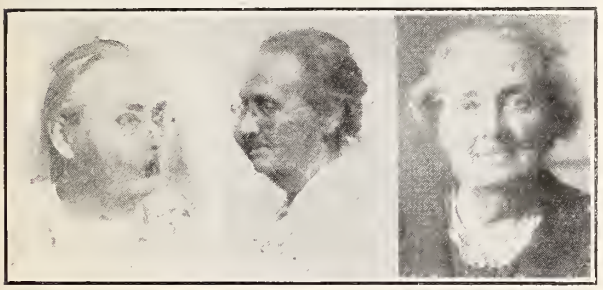

Fig. 7. Sarcoma of Antrum and Face.

actual cautery, caustics or radiation has produced an impaired blood supply and rendered plastic repair extremely difficult.

Many of these cases require radical amputation and exenteration of nasal contents, followed by cooking heat and subsequent radiation before surgical repair can be attempted with any promise of success.'* These cases reuqire more or less total reconstruction and introduce several new points for consideration.

The best covering is obtaind from the forehead because of the quality, thickness and color of the skin. The flap should be cut acurately to the size of the defect and should include in its pedicle blood supply from either the supraorbital or temporal arteries. The forehead defect is closed by advancing the scalp, the return of the pedicle and the use of free grafts when necessary.

Several methods of placing the supporting substances have been practiced. Nelaton placed it in an acurately measured covering flap. This method is bad because the flap rarely shifts on its pedicle to bring the support in the median line and, at the same time, allow accurate treatment of the flap margins. (Fig 6.) The best method is that of Gillies, which consists in planting the support in the glabellar region and turning it down on a hinged lining flap. This insures accuracy and permits independent treatment of the covering tissue. I include with this a bit of cartilage for the columella, nourished by a tongue of skin which will form its lining surface. One may leave the implantation of support until the soft parts repair is complete.*

The following cases illustrate application of these various principles:

Case 1. Perforating rodent ulcer of the glabellar region, treated over a period of nine years with escharotic pastes, curettage and the roentgen ray. Perforation through nasal bone one-quarter inch in diameter. Skin ulcer the size of a dime. Skin area widely excised, right nasal bone removed and actual cautery used on borders. Repair in three stages. Lining from ulcer edges and covering from forehead.*

Case 2. Squamous celled carcinoma complicated by tertiary syphilis. Patient aged 65. Invasion of distal two-thirds of nose, septum, turbinates and center of lip. Free excision of nose, turbinates and portion of lip. Actual cautery and radium. Repair of lip and planting of cartilage constituted the second procedure. Lining secured by using hinged flap supporting the cartilage and similar flaps from each lateral border. Indian type of flap to cover. Return of pedicle and Wolff grafting of deficiency constituted the last stage.*

In aged people and those otherwise not fit for operation, I advise radical removal and the use of covering protheses.

Fig. 8. Osteoma of Superior Maxilla and Antrum.

The nasal accessory sinuses frequently are involved by malignant growths. The

*Ferris Smith—Journal of A. M. A., Dec. 4, 1920.

*Ferris Smith—Journal of A. M. A., Dec. 4, 1920.

same general principles of removal apply to these cases.

I wish to present two very interesting results.

Case 1. (Fig 7.) Mixed celled sarcoma in patient aged 60. Involvement of the entire right maxilla and overlying cheek. Partially reduced by Coley's serum. Radically exenterated with the cautery. Large doses of radium. Result at the end of 18 months.

Case 2. (Fig 8.) Osteoma of left antrum and maxilla in patient aged 25. First noted at the age of 5. Had progressed until alveolar border was

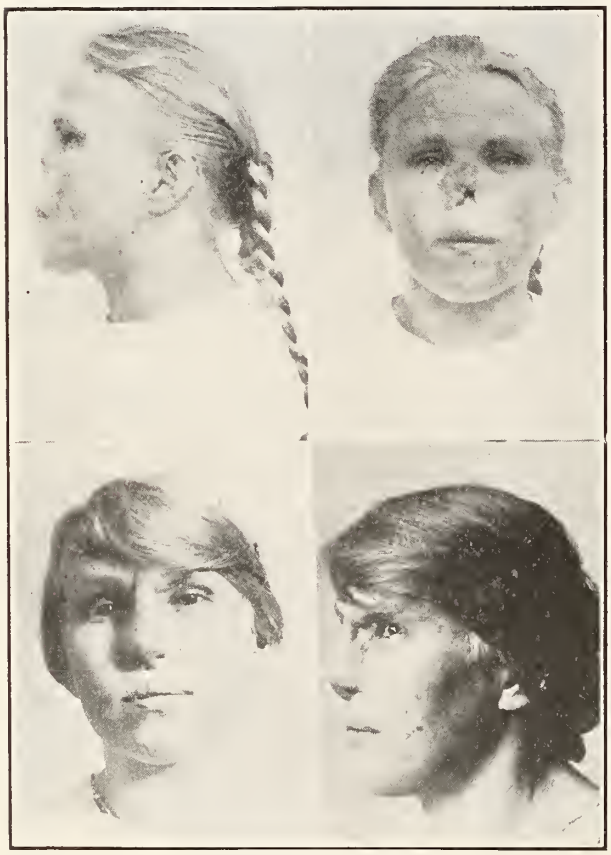

Fig. 9. Lupus.

one and one-half inches wide, dental articulation entirely destroyed, lachrymal duct occluded, etc. Removed from beneath the cheek.

In conclusion permit me to present three cases of lupus:

Case 1. Has had highly skilled treatment with light, roentgen ray and actual cautery without result. The case is presented in this stage to illustrate the radical handling in the effort to remove involved lymphatics as well as visible patholgy.

Case 2. (Fig 9.) Lupus of the face and nose which had been unsuccessfully treated by roentgen ray, chemical applications, etc., and was finally healed with Finsen light used by Dr. Jamison. The nasal repair followed the lines already indicated.

Case 3. (Fig 10.) Ulcerative lupus in a girl aged 25. First appeared and was healed by the use of X-Ray at the age of five. Minor recurrences since have been similarly treated. Eighteen months ago a recurrence was similarly treated and was followed by rapid ulceration and sloughing. The anterior antral wall was extensively involved.

At first operation, the involved area was radically removed and a pedicle tubed on the neck. At the second operation (present stage) a flap from the

Fig. 10. Lupus.

chest was planted on part of the area. The final stage will consist in spreading out this flap to cover the defect and release the scar pulling on the corner of the mouth. Return of the pedicle.

403-8 Metz Bldg.

DISCUSSION

DR. J. B. KENNEDY, Detroit: I do not know much about this subject though I was intensely interested in the paper read by Dr. Smith and the slides that were shown. I wish that more surgeons could see the slides and hear the paper. I congratulate not only Dr. Smith but the Society on having presented to it such an interesting paper.

DR. P. M. HICKEY, Detroit: I would like to ask Dr. Smith a question about the late treatment of cases of lupus. I had a case 17 years ago. At that time the lesion involved the nose, both cheeks and the mouth. We gave her radiation and succeeded in curing the lesion. Lately she appeared with very slight evidence of returning but complaining of the cicatrization which had taken place in the scar so that the mouth at the present time is puckered in which prevents her from taking any hygienic care of her teeth. They are in a very bad condition. I removed as much of the debris as I could through the small opening. The question came up in my mind as to just what could be done with that condition. There you have a double problem, the restoration of the nose and the restoration of the mouth. The question of the restoration of the nose would be carried along the line that Dr. Smith demonstrated. I would like to ask what procedures he would recommend for that terrible deformity of the mouth.

DR. L. C. DONNELLY, Detroit: I had a case of lupus that received one treatment with the high frequency lamp. I was advised to give rather heavy doses of the Finsen light. I gave the patient 10-minute doses with the chromium lamp. I want to say that in treating these cases of lupus with the chromium lamp one should be careful not to give an overdose. I only gave one-quarter of the dose, but I believe the lupus is still spreading.

DR. R. J. HUTCHINSON, Grand Rapids: I do not feel capable of discussing this paper but I have seen cases before and after operation. I personally feel as though I would like to throw up my hands if anyone came to me with that disfigurement. It is quite interesting to step into the operating room and see Dr. Smith fixing a piece of cartilage for the nose. Now you see and now you do not and the person who had a saddle nose before, now has a perfect nose.

I think the thing impressed on me by Dr. Smith is the necessity of supplying the proper lining for

the cavity; in fact, I think he gets results where those who do not pay attention to this point do not get them.

The use of radium, of course, I cannot say anything about.

DR. C. L. STRAITH, Detroit: I had the great pleasure of working with Dr. Smith on one of these cases—the girl with the lupus. It is certainly a pleasure to see the remarkable results obtained. The girl came back only a week ago and she has a beautiful result.

I wish to ask a question. For years we have been using the tibial graft or some solid bone graft in restoring the nostril. I wish to ask if it is not better in the present light of our knowledge to use a cartilaginous graft rather than a solid bony material. Secondly, in a number of cases we had some difficulty with infection when the bony or cartilaginous material was introduced through the nostril. I would like to ask whether it is not better to introduce it through an incision in the eye region.

DR. FERRIS SMITH, Grand Rapids, (closing): Regarding the case mentioned by Dr. Hickey, one might say that the mouth can be just as perfectly restored as the nose. This paper dealt just with the nose. It could be restored if the muscles about the mouth have not been ruined and the mouth could be given a very pleasing expression. A flap can be taken from the back or breast or some place in the neighborhood.

I rather hesitate to discuss the subject of lupus because I am not a dermatologist and I have not given a great deal of thought to the treatment side or the surgical side of lupus. As a rule these cases yield quite readily to radiation. The cases which do not yield to radiation should be treated surgically. In one of the clinics in Paris I saw these lupus cases treated by multiple incisions with very fine results. If the surgeon will take a sharp scalpel and mark the face much as you would the counting chamber on the blood-counting apparatus, he will get a very fine result. The ulcerative types are left for the surgeon. The sooner they are treated the better the end result. This case that was shown today, the young woman with the ulcerative lupus of the face, was treated by Dr. Hulst 20 years ago and it was treated again when she was 15 years old. This time she was treated with the so-called Finsen light, which stimulated the growth rather than healed it. Then she was sent for X-Ray treatment which hastened the breaking down.

In a general way one might say there is no deformity involving the soft parts of the face which cannot be repaired in a very good way and sometimes in an almost perfect manner.

Dr. Hutchinson has picked out the kernel of this whole thing when he speaks of the lining. The failure of the work in past years was due to the fact that the surgeon did not think of lining with the result that the flap contracted. That really is the first principle of the whole thing. Now as to the use of supporting substance, there is no question in my mind as to the choice between cartilage and bone. I made that quite clear in the paper. Dr. Carter, of New York, says that if you were putting in a bone graft in any other area of the body, you would do it under the most aseptic condition. If you were to put a graft into the humerus, tibia or ribs, you would see that the cavity was perfectly aseptic. You would not insert it through a cavity like the nose cavity, though there is no reason why the nose cavity would not be clean. I pack the cavity with iodine because one must have a clean cavity if he is going to transplant a piece of cartilage. One sometimes has to use a piece of bone for the columella.

Regarding the eye-glass incision, the whole purpose of plastic surgery is to improve the cosmetic appearance. Most of this work can be done with the introduction of scar.

DIPHTHERIA FOLLOWING OPERATION FOR TONSILS AND ADENOIDS*

CARL McCLELLAND, A. B., M. D.
DETROIT, MICH

The following case is reported on account of the difficulty in diagnosis, and to emphasize the fact that all cases of tonsillectomy should be carefully followed during convalescence for the possible complications.

T. O., girl, age 8, was referred to me for tonsillectomy and adenoidectomy, Oct. 31, 1919. Examination of the throat showed infected tonsils and adenoids. Arrangements made, she entered the hospital. It is a rule of the hospital that every case admitted to this ward must have a culture of the throat taken and reported negative for Klebbs Leffler. This culture was taken by the hospital laboratory on Oct. 31, 1919 and was reported as negative the following morning.

The tonsils and adenoids were removed Nov. 1, 1919 with ether enesthesia, using the sharp dissection method for the tonsils, time record of operation 10 minutes, with no bleeding and everything normal. The following day she was allowed to be taken home, and was carried by her father to and from the street car.

The usual instructions were given, namely, "keep patient in house for four or five days, permitting her to eat anything she can swallow, and bring her in for observation in one week." I advised the parents not to be alarmed over any white patches in the throat, explaining that this was present after all tonsil operations, and would gradually disappear as healing progressed.

Four days later, Nov. 6, I was called at midnight by the mother who stated that the patient was bleeding. On questioning her as to the general condition of the patient, she stated that the child had been fine for three days, was up and playing about and had a fairly good appetite. On the previous day the child did not eat as well as usual and was apparently nauseated. During the night she vomited blood stained mucus, and had been spitting blood for two or three hours. When asked if patient had bled a cupful, the mother said the bleeding had been slight. I advised ice chips for the tongue and ice collar for the throat and calling the following morning I found the bleeding slight, the patient apparently having bled from the nose, as the nasal passages were filled with bloody mucus, there being also considerable mucus in the throat.

The child seemed in good condition, was sitting up in bed, (seven days from the time of operation) spitting quite an amount of bloody mucus, her nose was very stuffy and Friday she began to have a croupy cough with some difficulty in breathing. The parents thought she had taken cold and waited until Saturday night, when, becoming alarmed, they, failing to reach me, called the family physician, who said that if the child had not just had a tonsillectomy he would think she had diphtheria, from the clinical signs present in the throat.

On Sunday morning examination showed a well advanced case of nasal and pharyngeal diphtheria, the abundant diphtheritic membrane covering the tonsillar fossa, anterior pillars, and extending well towards the uvula in the middle line. Her nose was filled with mucus, the larynx with membrane, so extensive that the child was unable to cry aloud. There was the typical laryngeal stridor. Without waiting for a culture, Dr. Binning gave 25,000 units of diphtheria antitoxin intravenously. We then took a culture which was of course positive. Except for a heart complication, the child presently fully recovered.

On examining the throat five days after the operation the patient gagged more than usual. There was a rather excessive amount of mucus in the throat. There was the usual grayish white exudate in the tonsillar fossa. Bleeding had ceased, her temperature was 100, pulse 130. Incidently, as she had cried and vomited, I did not consider the signs as important but merely due to the excitement. Assuring the parents that the patient would be all right, and instructing them to use ice in case of bleeding and to call me if necessary, I left, satisfied there would be no more bleeding. Not hearing from them, I forgot the case in the stress of other work.

I did not hear of the case again for two days, the mother reported that following my visit Thursday, the bleeding promptly stopped but the child remained dull and restless, constantly nauseated and spitting stringy mucus.

In tracing the infection, we had a negative culture from the throat, on entering the hospital one week before, which, while it did not absolutely rule out the possibility of the diphtheria bacillus being pres-

*Read before Grace Hospital Clinical Society.

ent, at the time of operation, made it improbable. We then took culture of the parents and the two older brothers. They were negative with the exception of the oldest boy, his culture being positive with no clinical signs of diphtheria. He is classed as carrier, as he had played and read to his sister on her return from the hospital, he undoubtedly transmitted the infection to her.

Everyone, I dare say, has seen a throat following a tonsillectomy and has been struck by the similarity in appearance of the membrane to that of diphtheria. Its disposition may be the same, at least in the early stages, extending out on the anterior pillars and towards the middle line, to the uvula. It bleeds when pulled off, and is whiter probably in a tonsillectomy than in diphtheria. However, in diphtheria the membrane increases in amount and spreads rapidly, while in tonsillectomy it should gradually disappear, or at least remain stationery from one observation to another. The temperature is low in diphtheria, about 100 to 101 and this also is common in a child following tonsillectomy The pulse is rapid in diphtheria, but a rate of 120 to 130 in a child after examination, crying and gagging, does not necessarily suggest the possibility of diphtheritic infection. The diagnosis was made in this case by the increased amount of membrane in the throat and larynx, the obstructed breathing and general prostration. I am certain now, that the girl had diphtheria when I first saw her five days after the operation. Had culture been taken at that time an earlier diagnosis would have been possible.

Though this case has recovered, I am thoroughly convinced from this experience of the necessity of keeping our tonsil cases under more careful observation, thus avoiding the dangerous complications arising from any negligence on our part.

REPORT OF TWO CASES OF MUMPS BENEFITTED BY ULTRA VIOLET RAYS

LEO C. DONNELLY, M. D.
DETROIT, MICH

During my army service at Camp Wheeler I saw some 3,000 cases of mumps. At the Boston A. M. A. meeting last June I attended a Camp Wheeler reunion at the Harvard Club. Major Joseph A. Sailer was in charge of medicine during the height of the epidemic at Camp Wheeler. At Boston he made the remark that he learned one thing at Camp Wheeler from handling 3,000 cases of mumps. That one thing was that there was practically nothing to be done for mumps except general nursing. Mumps had to run their course.

On July 11, 1921, I was called to see Mr. N., age 29, single, an old patient. He had been out of work since November. 1920, had resumed work three days earlier and was suffering from an acute attack of mumps. Right parotid gland very swollen, tense, red, painful, jaws practically locked, left parotid becoming involved. Patient taken to the office, cheeks thoroughly rayed with Alpine Sun Lamp and Radio-Vitant lamps. At the end of half an hour jaws relaxed sufficiently to allow a Kromayer applicator to be placed in the mouth and the parotid glands were thoroughly rayed, using the Kromayer lamp. The patient felt good and slept well that night. On July 12, a second similar treatment was given. On the morning of July 23 he was well and returned to work. He lost one days work.

The second case was treated and was reported by Dr. F. J. Kern of Cleveland. His report follows:

"Frank B., age 17, was seen by me in the apartment adjoining my office. Both parotid glands were swollen and painful. Painful orchitis on left side. The patient had not eaten for 48 hours and could open his mouth only with difficulty. He was conducted to my office, put under the Alpine Sun Lamp; his cheeks rayed two minutes, distance foot and a half. The scrotum was rayed the same length of time. The patient got up from the couch smiling, his pain relieved, and he had his lunch the same evening. Next morning I found him sleeping, 10 hours of sound sleep. The temperature hovered around 101 degrees for the next few days, the patient had slight headache which was relieved by aspirin, but the severe pain never returned.

The reason for the apparently miraculous results are:

1. Ultra violet rays kill germs.
2. Ultra violet rays break down toxins.
3. Ultra violet rays open up lymph spaces, relieve congestion, and promote normal circulation.
4. Ultra violet rays relieve pain.

HIGH-POTENCY ANTITOXIN

The reticence which formerly characterized the attitude of certain physicians toward the injection of large doses of antitoxin in cases of diphtheria has almost entirely disappeared. This, in no small measure, is attributable to the enterprise of biological manufacturers in developing new and improved methods of antitoxin production.

The diphtheria antitoxin put out by Parke, Davis & Co. is remarkable for its concentration and purity. The total solids in this product have been reduced to a minimum, thereby practically eliminating the possibility of anaphylactic reactions. The high concentration of this antitoxin makes feasible the injection of an adequate number of antitoxic units in small bulk—a most desirable quality, since the pain and discomfort resulting from the injection are negligible, and, if given subcutaneously or intramuscularly, absorption is hastened.

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OCTOBER, 1921

Editorials

CANCER WEEK

The reader will glean from the editorials and comments in this issue that there is to be conducted a nation-wide Cancer Week during October 30 to November 5. The end sought is that of education of the public. It is only by enlightening the public in a systematic manner and thus cause them to realize that with their cooperation the mortality of cancer will be reduced that we can impress them with the fact that delay is dangerous. Education of the public is the keynote of this campaign. We of the profession must undertake this educational work in every part of the state.

Dr. Peterson has been appointed as State Chairman and it is under his direction that the campaign will be conducted in Michigan. We urge that every sub-committee that he has appointed, bend their entire efforts to accomplish the results that such an educational movement will achieve. Further, we also urge that every member lend his support to this campaign and subscribe his wholehearted effort to make it successful. Make it a point that your patients are acquainted with the facts and also urge them to attend the meetings that will be devoted to this subject. This is an obligation that you dare not ignore.

STANDARDS OF GROWTH IN THE DETROIT PUBLIC SCHOOLS

Beginning January 1921, the height, weight, age, grade and nationality was secured for every child in membership in the elementary schools of Detroit. After discarding all ambiguous or faulty records, there remained the records for 43,477 boys and 40,912 girls, a total of 84,389. They concluded:

1—That retarded children are generally shorter and lighter than children in grade at age, while accelerated children are generally taller and heavier than children in grade at age.

2.—That nationality must be considered as an important factor in any final growth table.

3.—That boys grow faster than girls up to 10½ years.

4.—That girls grow faster than boys from 10½ years to approximately 15 years.

5.—That the history of the child regarding illness and physical defects must be given careful consideration in relation to its height and weight.

6.—That it is probable that a careful study of the height and weight of the parents might throw light upon the reason for the variations of the children.

7.—That the tremendous variation within an age group suggests that the height and weight are determined by a large number of factors other than age and sex so that interpretation must be based upon a series of laws rather than a single law.

8.—That study should be made at once of the physical defects of a sufficiently large number of children in each age group to determine the relationship each of these defects bear to the general health and progress of children in the public schools.

THE CANCER PROBLEM

As a result of the campaign which has been conducted by the American Society for the Control of Cancer for the education and enlightenment of the lay public on the subject of cancer, a greater and more accurate knowledge of this disease is already evident, and many fallacious ideas have been corrected. This has been the primary and

most necessary step in the campaign to reduce the very great, and often unnecessary, mortality of this disease, for until the patient of his own accord seeks medical advice no steps can, of course, be taken toward making a diagnosis or applying the proper treatment. Much yet remains to be done in the way of education of the public, not only in the more remote rural districts but in the towns and cities as well, and it must be done wisely and temperately, and without producing so great a fear of the disease as to alarm people unnecessarily. It is the knowledge that the disease can be cured by radical treatment in its earliest stages that must be disseminated. Many laymen, and some physicians, find it hard to believe this fact. Cancer is not a disease that runs its course, like pneumonia or typhoid; it is an actual entity—as much a part of the individual as his finger or his nose, and it is either still a part of him and growing to a fatal termination or it must be removed entirely in order that he may be cured. The layman knows of the many cases that are not cured, whether an attempt at cure by operation has been made or not, but he rarely knows of the cured cases, for the reason that the individual who has been relieved of the disease by operation goes about his or her business as well as ever, and disguises, so far as possible, the loss of the organ or the scar of the operation by which life has been saved. It is difficult to controvert this personal experience of the individual by assertions of the possibilities or probabilities of cure by operation, but it must be done if the public is to understand the actual facts of the cancer problem. Every physician should feel it his duty to make these facts clear to the laymen within his reach. The physician of the present day must do far more than care for the cases of disease that call for his help. He is the health officer of his own clientele, and they look to him for knowledge to protect them from disease. The instruction which has been given to the public is already bearing fruit, and from many communities comes the report that patients now present themselves to their physicians much earlier than in the past with symptoms that they consider suggestive of cancer. Under these circumstances it behooves us to consider, as members of the medical profession, the obligations which rest upon us as the nearest and the first sought source of scientific knowledge, to give to our patients that wise counsel which they have a right to expect.

Responsibility of Physicians

It is a well known fact that a considerable proportion of malignant tumors are not recognized by the doctor when the patient presents the indefinite early symptoms of the disease. Optimism too often replaces a careful physical examination. The great majority of cancers of the rectum are today treated as hemorrhoids for from one to six months. Uterine discharges are often not properly investigated, and curettings are not examined. Cancer of the tongue and mouth is permitted to advance because there is a positive Wassermann. Metastases are produced by repeated rough examinations. Malignant moles and epitheliomas of the skin are imperfectly removed. Clearly inoperable cases are operated on, thus bringing operation into disrepute.

These conditions call for a far keener appreciation of responsibility for the mortality from cancer than now generally exists in the medical profession. To collect and to make accessible to the physicians of this country the most fundamental and essential facts about cancer of the different organs and regions of the body is the object of this pamphlet.

Statistics

Complete returns of cancer mortality are available only for the registration area of the United States, which however, includes approximately 70 per cent of the total population. On the basis of this information it is conservatively estimated that the mortality from cancer in the entire continental United States at the present time (1918) is approximately 90,000 per annum. According to sex, the mortality by principal organs or parts affected, based on the figures for 1914, is as follows:

ESTIMATED ANNUAL MORTALITY FROM CANCER, CONTINENTAL UNITED STATES—1914-1915

Organs or Parts	Males	Females	Total
Buccal cavity	2,725	570	3,295
Stomach and liver	15,787	15,056	30,843
Peritoneum, intestines, rectum	4,544	6,027	10,571
Female generative organs	.....	11,965	11,965
Female breast	.....	7,771	7,771
Skin	1,982	1,098	3,080
Others	7,838	4,637	12,475
All forms	32,876	47,124	80,000

The recorded mortality from cancer in this, as in other countries of the world, is gradually on the increase. The annual increase in the cancer death rate is approximately 2½ per cent. The recorded cancer death rate has practically doubled during the last 40 years.

AN EDITOR'S DAY

The editing of a medical journal is not a bed of roses, neither is it one in which all

that is necessary is to sit down and roll off a few reams of editorial comment and copy. We feel fairly certain that the majority of our members have no conception of the details that are involved in the supervision of a publication such as our Journal. To impart a rather meager insight we are going to recite the incidents of a single day—it is but the narrative of practically every day in the month and the incidents recorded arise from day to day throughout the years.

Morning: Mail. This consists of about a dozen or more letters and several exchange journals. The first letter is from a county secretary requesting that we write to two local members who have failed to pay their current dues. The letters are dictated and the value of membership pointed out to the delinquent members. The next letter is from a member who has written a book and who expresses his indignation because its review does not appear. A letter is addressed to him informing him that the copy has been at the printers for two months but on account of printing, labor conditions, etc., as well as limited space the review has become side-tracked and that no studied insult to the member is intended. The next communication comes from a member who encloses a newspaper advertisement of a travelling advertising specialist with the request that we inform him how this man may be restrained from this class of practice. A letter is sent in reply advising him of the law governing these cases and at the same time the communication is sent with another letter to the Secretary of the State Board of Registration. The next is a postal card from a member complaining that he is not receiving The Journal. Upon investigation we find that he has moved from his former location and had not notified us of change of address. He is advised the reason why he did not receive The Journal and that in the future it will be sent to his new address. We cannot always intuitively know that a man has moved. The next is a letter from an advertiser asking why he is not receiving more business from his advertisement. We endeavor to answer his inquiry and point out to him that we are co-operating with him to our fullest capacity and urge that he continue to run his ad, as we are sure that satisfactory returns will result. Incidently we are interrupted by a telephone call from the printer asking for copy, instructions or for a check. The next is a letter from a member submitting copy for an original article that is in the nature of a small textbook. The manuscript is returned with suggestions that it be cut down. We make the suggestion as carefully as possible, but even then we know that we are going to be jumped upon because the paper is returned and we are going to be charged with favoritism. The next comes in the form of a call down because we printed the writer's discussion of a paper at the last annual meeting without submitting proof to him. This critic is unfamiliar with the rule that discussion of papers is not submitted because if we did we would receive a revision entirely different from what was said and what the stenographer reported.

We are interrupted by the bookkeeper, who submits a financial statement showing that the bank account is overdrawn and that outstanding accounts are due. A visit is made to the treasurer's office and a few bonds are put up to replenish the bank balance. Checks are drawn and sent to the Treasurer and Chairman of the Council for signature. The next letter is from a state secretary out west wanting to know the salary that is paid in this state to the secretary-editor, whether we have a medical defense and the annual membership dues. The information is supplied. Then comes a letter from a member asking us to jack up the profession on the subject of proper dosage of antitoxine in diphtheria. We thank him for the suggestion and promise to do so, at the same time inviting him to continue his interest in The Journal. The next is a bulky letter from the Secretary of the Illinois State Medical Society, inclosing a stenographic report of its president's protest against the Shephard-Towner Bill and urging that we file our protest with the senators and congressmen. Telegrams are consequently sent to these men in congress voicing our objections in behalf of the Michigan profession. The next is an invitation inviting us to attend the anniversary meeting of the Upper Peninsular Medical Society. Regretfully do we dictate our inability to be present and also write a letter to President Kay suggesting that he attend. The next communication is from the Chairman of a standing committee asking us to solicit funds from the county societies for the expense of his committee. This is referred to the Chairman of the financial committee of the Council, for instruction. The Secretary of the A. M. A. writes asking whether the enclosed list of men are still members of the state society. This letter is referred to the stenographer for proper notation opposite each name.

There follow a number of circulars from badge houses asking for the date of our next annual meeting, requests from directories asking for lists of officers, advertising agencies regarding ad copy and placement,

government circulars and similar one-cent mail. Incidently we have not mentioned returned proof from authors with individual requests as to style and reprints, monthly reports and remittances from country secretaries, communications from boards of health and a dozen different forms of circulars or requests. Interruption has been frequent because we have one or two patients who come in, for we do live from the income of our practice and not from our salary. The morning is gone and we dig out for lunch.

In the afternoon, the dictated letters are reread and signed. A few more letters are dictated requesting payment of reprints that authors have ordered. Incidently we write to prospective advertisers and seek to induce them to use our Journal. A long distance call comes in from a secretary asking us to supply him with an essayist for their meeting tomorrow night because the man scheduled has wired that he cannot come. We agree to substitute or send some one else. The printer's roll of proof and manuscript is checked over and sent out to the authors. A card from our associate editor stating that he has not received his check for the preceding month and was wondering if he is no longer connected with The Journal. Lack of funds is offered as the excuse and information is imparted that we have not drawn a check for our services for the past three months. The afternoon mail brings in a few more letters, and reports. One stating that a member is threatened with suit is forwarded to the Chairman of the Medico-Legal committee and the member is advised to govern his actions in the matter entirely by the advice given him by Dr. Tibbals. The rest of the mail is basketed until morning for it is now past office hours and we have a hospital round to make and dressings that must be done. As we leave we take with us a bundle of exchange journals, proof and manuscripts for our evening work at home.

Night: Dinner and the evening papers read and the boys aided in solving their problems, with possibly a trip to the movie or the entertainment of callers finds the clock recording the hour as 10 or 11. Out comes the roll and we run through the exchange journals, gleaning a thought here, and opinion there, or some scope of activity that is being carried on by sister state societies. At the same time we run through their advertising pages to see if they have any advertisers that we might secure for our state publication. The editorials are read and thus we secure material for our pages. The original articles are edited and incidently we wonder when authors will learn to double space their lines, refrain from use of capitals in the middle of sentences, cut out abbreviations and properly note quotations. These are but a few of the grievous sins of authors. Correction must be made before the manuscript is sent to the printer—often it is easier to re-write the copy and this is done quite frequently. By this time it is midnight. Out comes the old typewriter and with the pick system we endeavor to prepare our editorials and comments. At times the spirit moves with easy direction of words while again we pick out a line or two and then grope around for desired expressions and thoughts. One o'clock a yawn, bang goes the machine and we are off to bed. It is the end of just another day.

In re-reading the above we recognize we have but touched upon only a few of the details. They are many and vary from day to day but are all concerned with organization, journal and society work. We are not seeking for sympathy nor do we intend to impart how hard we work or the time that is consumed. Our desire is to just pull back the curtain and point out how and why we do sometimes make errors and to demonstrate that the position we hold is not void of physical and mental effort.

SUMMARY OF ORGANIZATION SUGGESTIONS AND ACTIVITIES TO BE CARRIED OUT, DURING THE NATIONAL CANCER WEEK

The exact date of this campaign, which will probably be held during the week of October 30 to November 5.

The following is a more detailed plan of what is desired to be undertaken during this national campaign. The main features, may however, be summarized as follows:

1. ORGANIZATION.

As it is desired to reach all parts of the country and as many of the population with the hopeful message of cancer control as possible, it is of course necessary to effect a complete organization, before anything else can be done. It is therefore recommended that the State Chairmen undertake to see that a Chairman of a Local Committee is appointed for every community of five thousand population or more in his state. The Chairman of these local committees should then select their local committees for the purpose of carrying out the following program.

2.—ACTIVITIES TO BE UNDERTAKEN

The aim in this campaign is, as stated

above, entirely educational, and designed to reach as many people as possible. The three main activities to be pursued may be briefly summarized as follows:

(1) LECTURES

A lecture bureau should be established and the lecturers instructed by use of the society's syllabus, as to how the subject should be presented. Lectures should include both those arranged for professional groups, such as medical societies, nursing organizations, etc., and those for the general public.

(2) LITERATURE

The society will provide a moderate quantity of literature to be distributed at meetings. As the amount avaialble for any state must at this time be apportioned in accordance with some arbitrary method, such as population or number of members in the society from that state, it is quite probable that it will be desirable for either the state committee or local committees to secure a modest sum for the purchase of additional printed matter. This can be secured at cost from the National Society, the little circular "Vital Facts About Cancer" recommended for the purpose being quoted at $20 per 5,000 or $35 per 10,000.

(3) PUBLICITY

This also falls naturally under two main headings, articles in professional journals and those in the lay press. It would probably be desirable to place the latter in the hands of a trained newspaper man, for all material should be carefully prepared and edited before it is given out. The news articles are simple, but abstracts or digests of the lectures given should be handled with extreme care. The editors of medical journals should be asked to co-operate by calling the campaign to the attention of their readers and asking for the co-operation of the profession. Editors of these journals will doubtless be willing to feature the educational campaign for the control of cancer in some number preceding the campaign.

Editorial Comments

Frequently circulars reach us from government offices advertising the fact that on a certain date a civil service examination will be conducted for the selection of a certain number of medical officers for service in some part of government work. Just now one lies before us seeking Roentgenologists. The requirements are the holding of the degree of doctor of medicine from a recognized school, experience and training in X-ray work and the passing of the civil service examination. The successful candidate will receive a salary of $2,500 per year, subsistence and one room. If his services are satisfactory at the end of three years he is entitled to the $200 bonus.

The thing that we marvel at is the salary that is paid. A man must put in six years of medical study, at least two years in X-ray study and for that time and the ability and skill that he has thus acquired he is rewarded with the sum of $2,500 per year. A freight brakeman with no education and two or three student trips will make that much a month and more, so also will men in other lines of commercial endeavor. It is easy to criticize public officers and services, but what else can be expected if the above inducements are offered to attract men to the service. Once in the service there is but little hope for advancement and eventually you are retired on two-thirds pay, provided in the meantime the convenience of the government has not brought about your dismissal.

According to newspaper articles prayer is not a very potent therapeutic agency for the cure of disease. A short time ago the press of the state gave considerable publicity to the cure of a boy in Hastings after he had been given up by physicians and it was alleged that prayer had entirely cured the boy. A little over a month later the same papers announced the boy's death. Thus are miracles performed and likewise are they discredited.

Welcome home is extended to a number of our members who have been so fortunate as to spend their vacations abroad. Many of us who have not been so fortunate as to be able to travel abroad will be very interested to hear of your summer's experience and observations. The Journal will welcome such articles either in the form of correspondence or original records of your trip. May we not have them for our next issue?

Have we forgotten so soon? The other day there passed down the street a funeral procession, the hearse was surrounded by a guard of ex-service men in uniform. The body inside was that of one of the boys who gave his all and whose body was being returned for burial in his home town. A military escort with the Flag preceded the procession. We watched this cortege for three or four blocks and in that distance but one man stood at attention with his hat off until the Flag and the hearse had passed. Have we forgotten so soon? Can you blame the boys for being sore?

Your comments on Government Regulation of two hours resuscitating work on drowned recovered within a reasonable period of immersion recalls the time old subject of Apparent Death From Death. It will be admitted that in observations at bedside we have not materially progressed beyond the great masters in medicine prior to the days of Pasteur, and it was during the life time of Pasteur that the French government established an international prize for differentiating Apparent Death From Death—under prevailing embalming methods Apparent Death has been "scrapped," but whenever it does occur, and it is known to occur both with and without consciousness, its ghastly tragedy is appalling!

In the southern German states the law demanded four days between death and interment, and I was personally told by an old minister that whilst a student at Munich, he was taken with typhus fever and died, but that he was fully conscious, laid out for burial and revived on fourth day when funeral rites were in progress. On January 17, 1878, 9:15 P. M., I declared an aged woman dead from consumption. She was left in bed and well covered. About 4 A. M. next morning her son called—house two blocks away—stating that a shudder passed over his mother's body. I found the body in position as I had left it, laid my hand over heart and began dozing, soon I felt a distinct spasm, we applied heat over the heart and soon the spasms became more frequent and accompanied by gasps of inhalations, by 6 o'clock she was breathing about six short breaths a minute. She recovered fully and lived about eight months. She had been fully unconscious. At that time nothing unknown was considered in having occurred worth reporting, acknowledgement of apparent death was common knowledge. But lately I was informed of a woman living in Wayne County who had received the last

rites of the Catholic Church and revived—prior to days of modern embalming.

The English Physiologist, Carpenter, devotes an entire chapter on Apparent Death From Death. Carpenter relates one case of which he had personal knowledge, that the body was revived after 12 hours under water. In 1877 I was informed by an English officer, who had been in India, that he was an officer of the guard, guarding the grave in which an Indian Fakir had been burned, after preparation for the trial buried and that the Fakir was revived, after grass had sprouted, thus I had the report of Carpenter verified. This officer knew nothing of Carpenter.

In one of the earliest annual publications of the Michigan State Board of Health, Second Volume, I believe, a memoir of Dr. Wheelan, contains report of a number of cases in which resuscitation took place after immersion of an hour and longer.

In the fall of 1919, a Southern California paper reported the case of a school teacher, who, while engaged in photographing the tides, was swept out to sea and found on shore eight hours afterwards swept in by the tides, after the proper authorities had used pulmotor and pronounced her dead, was resuscitated by an "irregular" after several hours of artificial respiration.

The evidence of existance of Apparent Death cannot be effaced by simple declarations that a heart once stopped for a somewhat longer period of time cannot be restored to function—in my personal case, the heart had stopped for upwards of eight hours and patient revived.

In comparing the older reports with those of recent time, it does seem that the pulmotor should be scrapped and resort to older methods, draining the lungs, applications of heat to heart, etc., and measures continued for a definite period until the physical signs of death beyond the cessation of heart and lungs are in evidence. The constitution of death should not be relegated as now to relatives and the undertaker—recognition of Apparent Death should be legally recognized by law, an officer of competent qualifications appointed for every supervisor's district, to whom every death should be reported and whose signature should be required before an embalmer could be called.

Comment:—We are very pleased to receive and give space to the above article from Dr. George. We are grateful for the information he imparts and the personal experiences that he records. This is the doctor's opinion and we accept it for when a man has seen such a happenstance one cannot deny that it occurred. Our comment in the last issue was based upon our own experience covering some 20 years during which time numerous instances occurred whereby measures of resuscitation ended in failure, even after they had been continued in some instances as long as 12 hours. It is upon that experience that we stated that where total cessation of heart action existed for 10 minutes and even less, measures to resuscitate invariably resulted in failure. We repeat the condition, total cessation of heart action. We are inclined to believe that reported cases of resuscitation after one, two, four or more hours that such cases on careful examination would have presented some cardiac action.

The doctor's suggestion regarding a state officer who shall be called and make an examination and certify to the death of every individual merits sincere consideration. It is a suggestion that appeals to us. What do you think about it?

The early detection of arterial disease is an accuracy that every thoughtful and alert physician is interested in. By our older methods early diagnosis is rarely or never possible except upon supposition or historical facts. Heretofore, we have been unable to institute early treatment because of failure to make a true diagnosis. Progress is being made. In the last issue of The Journal of Laboratory and Clinical Medicine, Harlow Brooks of New York directs attention to the method of Dr. David Dennis and of Dr. Reese, who have made some interesting observations and study of the conjunctival vessels and from their study are able to detect early arterial changes. Our readers' attention is called to this article because we feel that the employment of that method will go far toward assisting one in making an early diagnosis of arterial disease.

The Clinical Congress of Surgeous of North America will hold their annual session in Philadelphia the last of October. A splendid clinical program has been prepared.

Newspapers report the discovery of gold in certain coal mines. From the prices that are being quoted upon coal this fall, we formed the opinion that all coal must at least be gold plated. Evidently we are in error.

We are aware that many women object to a thorough examination. We, as physicians, often yield to this objection. In every uterine complaint in a woman past 35 insist upon a vaginal examination. It is only by such an examination that early malignancy can be detected. Such a procedure is the physician's duty in the campaign to reduce the mortality from cancer. The exhibition of a little tact and even time will enable you to cause the patient to withdraw her objection.

The test meal and gastric-analysis is only secondary in the diagnosis of gastric ulcer and early cancer of the pylorus and stomach. A barium meal and gastro-intestinal study is the more reliable. In all continued gastro-intestinal disturbances always insist upon such an examination. Do not procrastinate by giving diets and stomachics. These are all right after you have ruled out ulcer, which is the precancerous stage in the majority of cases of cancer of the stomach.

More persons died from cancer in the United States during the period we were at war than were killed in the army. And cancer causes one out of every ten deaths after the age of 40.

Cancer seems to be increasing in every country. Our death rate is 81.6 per 100,000.

The average delay by people afflicted with cancer is one year. That is, from the first symptoms one year elapses before a doctor is consulted.

Any sore that does not heal, particularly about the mouth, lips or tongue, is a danger signal. Avoidance of chronic irritation and removal of such seemingly insignificant danger spots may prevent cancer.

If you had spent $30,000 in doctors' fees during the past two years and ended up in New York, where you consulted a specialist, who requested a $250 consultation fee in advance and who, upon payment, sent you to a hospital, where you remained one week and paid a $50 hospital fee, if during that week your specialist saw you but three times, never examined you and never advised you as to

what your disability was or gave you a prognosis and remained away the last three days—if this had been your experience, would you be sore on the profession? If you had a boy, aged 16, who was ailing, and you went to a doctor and he told you if the boy was circumcised he would regain his health and you followed that advice and permitted the doctor to circumcise him and paid his bill of $100 for the circumcision and $15 for the anesthetic and 10 days later the boy's condition made it imperative to call counsel, with the result that a diagnosis of myocarditis with cardiac enlargement and broken compensation was made and the cause of the boy's illness, what would you think of the doctor who held you up for $115 for the circumcision? Would you be sore? These two experiences were related to us this past week. They indicate why the profession has bitter enemies. Is it not well to take warning?

The diagnosis of malignancy in every case of tumor of the mammary gland is comparatively easy if one will but make a careful examination, keeping in mind the diagnostic characteristics of cancer of the breast. Clothes removed and palpation and inspection plus the history will lessen the per cent of failure of early diagnosis.

In the education of the public regarding the high mortality from cancer you have a definite responsibility. Rise to that responsibility, not only during the week of October 30 to November 5, but through every week in the year.

Simpson of Washington draws the following conclusions, based upon his personal experience and the reports of the Rockefeller Institute: 1. I am positive that I can cause complete atrophy and disappearance of any but a fibrous tonsil in one to three treatments. If the tonsil is very fibrous, the change in size will not be so marked. 2. Eliminating as it does, any suffering, operation, anesthetic, hemorrhage and pain, it most certainly will be a popular method of removing the tonsils from patients who have circulatory or kidney lesions, who are unable to give their time for an operation or who prefer a slower, safer and painless destruction of the tonsil.

We have noted considerable discussion in regard to X-ray treatment of the tonsil and have read some of the reported results. We shall be very glad to receive the reports and discussions of our members upon this plan of treatment as against the surgical removal of the tonsil.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Lake View—Beautifully situated, one-third mile lake front, among century old trees. Boating, bathing, fishing. Large, handsome colonial mansion. Baths, steam heat, every city convenience. Orchard, vineyard, complete country estate of 18 acres adjoining village. Ideal location for physician, hospital or sanitarium. Nelson & Ocobock, Paw Paw, Michigan.

Practice for Sale—Excellent opportunity for surgeon or obstetrician with executive ability to obtain controlling interest in small up-to-date hospital in Detroit. Will also consider partnership. Call Cherry 3334. Mr. Glicman, 614 Free Press Bldg., Detroit, Mich.

Do You Want
an EXCELLENT LOCATION FOR GENERAL PRACTICE and a good REAL ESTATE INVESTMENT in Detroit?
Here It Is!

An attractive brick-veneer three-family flat, with basement, offices on a prominent east-side street. Office suite consists of five rooms, arranged for doctor and dentist, or two doctors, with steam heat, compressed air, lavatory, etc.

The owner's apartment on the first floor consists of eight large rooms and bathroom, with fireplace, built-in book cases, china closet and refrigerator, and plenty of closets and cupboards to satisfy any wife.

The second floor has two as attractive flats of five rooms and bath as you have ever seen.

All built as you would build it yourself.

Can introduce to a large acquaintance. Terms. Address Doctor, 513 David Whitney Bldg., Detroit.

James M. Campbell, son of Dr. and Mrs. Christopher Campbell of Detroit, was married September 22 to Miss Marion Dwyer Crowley, also of Detroit.

Dr. F. L. Newman of Detroit met with an accident the latter part of August, while on a camping trip, and sustained a fractured leg.

Colonel Gilbert E. Seaman of Milwaukee was elected president of the Veterans of the 32nd Division (Red Arrow) at their annual convention, held in Detroit August 30. Dr. Seaman graduated from the Michigan College of Medicine and Surgery in 1889.

The Detroit Receiving Hospital, Psychopathic Division, began a series of ward walks on mental diseases September 25 (10:30 a. m. to 12 m.). These will be given every Sunday morning for six weeks. The work will amount to a post-graduate course in the subjects and will be conducted by the staff of the division. There will be no fee.

The following physicians are members of the Aviation Country Club, which is located in the lake region of Oakland County: Doctors E. K. Cullen, W. A. Defnet, H. A. Haggerty, R. J. McClellan, J. A. MacMillan, E. P. Newton, T. H. O'Rourke, N. B. Webber, R. A. C. Wollenberg (all of Detroit), and S. E. Galbraith and E. V. Howlette of Pontiac.

Dr. and Mrs. F. J. Maguire of Detroit spent their summer holidays at Mackinac Island.

The engagement of Miss Edna Lee Caulkins of Chattanooga, Tenn., to Dr. A. Lange of Detroit was announced the last part of August.

Dr. John A. Maloney, Detroit College of Medicine, 1920, has located in Flint.

Dr. J. T. Connell, formerly of Ann Arbor, has located in Flint.

Dr. R. A. Stephenson has been appointed school physician of Flint.

The residence of Dr. H. B. Osborn of Kalamazoo has been recently purchased by the Bronson Metho-

dist Hospital Association and will be used for the present at least as a nurses' home.

We are glad to state that Dr. and Mrs. F. N. Blanchard's daughter, Alice, is alive and well and not dead, as stated in one of the news items in the September issue of this journal. Our source of information was entirely incorrect.

The Detroit College of Medicine and Surgery has secured the services of T. L. Patterson, Ph. D. (University of College), as Professor and Director of the Department of Physiology. Dr. Patterson has for some years been a member of the Professional Staff of the Iowa State University and has contributed largely to the original work in his subject.

The Detroit College of Medicine and Surgery has secured the services of Dr. Donald Beaver, lately of the Pathological Department of the University of Minnesota, as Assistant Professor of Pathology.

Dr. R. Ernest K. Cullen has been appointed Professor and Director of the Department of Gynecology in the Detroit College of Medicine and Surgery.

Doctors P. M. Hickey, W. E. Keane, F. W. Robbins, B. R. Shurly, A. P. Biddle, F. B. Walker, R. W. Gilman, Delos Parker, A. W. Ives and C. G. Jennings were pallbearers at the funeral of Dr. T. A. McGraw of Detroit, held September 8.

A recent estimate of the economic loss to Detroit from tuberculosis during 1920 is $3,036,467.50. This estimate is based on the minimum economic value of a life as $1,700. Counting the 1,013 deaths from tuberculosis in Detroit last year, this would bring the total of $1,722,100. Adding to this, loss in wages at a minimum of $3 a day for 250 days, the total would be $759,750. Adding further the cost of necessary medicine and medical attention at a minimum rate of $1.50 per day, the total is $554,607.50. A grand total is secured without counting funerals of $3,036,467.50.

The Board of Trustees of the Detroit Tuberculosis Society voted in June to prepare a health exhibit to be used in Detroit and Wayne County. Paul Honore is preparing 11 paintings featuring health. Three will emphasize the development of resistance in order to resist disease. Children's health work in the schools will be the subject covered by two more. Three will be devoted to sanatorium and home treatment of tuberculosis. Rest is emphasized as an essential feature in the cure of tuberculosis in another. The necessity for a carefully regulated life after an arrest of tuberculosis is stressed in one. A painting on sanitary working conditions in factories is included. Other matter will be exhibited, showing the work that is being done by the Society and what the tuberculosis problem in Detroit and Wayne County is. A nurse with social training will give talks to those visiting the exhibit.

On August 29 the State Administrative Board gave to the State Department of Health complete authority over the health divisions of all state institutions. This action was taken because there has been considerable conflict between the various commissions administrating state institutions and the State Department of Health. According to the orders of the State Administration Board all appointments, salary raises and schedules of duty will have to be approved by the State Commissioner of Health, Dr. R. M. Olin, who will act in a supervisory capacity over the institutional physicians.

The Graduate School of the University of Minnesota has announced a special one-year course in ophthalmology and otolaryngology. This course began September 28.

It is reported that Western Reserve University has received $500,000 from Samuel Mather to be used in the construction of a new medical college building.

Dr. and Mrs. J. R. Rogers of Grand Rapids returned home the last week in September after a three months tour in Europe.

Dr. and Mrs. W. T. Dodge of Big Rapids have returned from a two weeks trip on the Great Lakes.

Dr. F. C. Warnshuis of Grand Rapids has declined to continue as surgeon for the Pere Marquette Railroad. His relationship is severed because of his unwillingness to sign a contract that called for remuneration at a fixed yearly salary of a figure that demanded his services at a rate of 50 per cent discount of the present accepted standard of fees. We are not disposed to serve corporations at reduced rates.

Dr. Paul G. Woolley, formerly Professor of Pathology in the University of Cincinnati and Pathologist to the Herman Kiefer Hospital, Detroit, has been appointed Associate Professor of Pathology in the Detroit College of Medicine and Surgery.

Dr. F. A. Roberts of Flint has been appointed Deputy Instructor General of the Michigan Grand Commandery, Knights Templar. Dr. Roberts will have supervision over the work of the Commanderies at Saginaw, Bay City, Romeo, Fenton, Mt. Clemens, Bad Axe, Port Huron, Lexington and Flint.

The State Administrative Board authorized, September 13, the creation of a new bureau of the State Department of Health, to have complete supervision over the medical, dental and sanitary work of the State Penal and Corrective Institutions. Dr. R. A. McGregor, prison physician at Jackson, will head this new bureau. He will also have advisory charge of the medical, dental and sanitary work in the State Hospitals and other State Institutions and will submit reports to the Administrative Board.

Dr. M. W. Wells, for two years Superintendent of Blodgett Hospital, has tendered his resignation, effective October 1. Dr. Wells will resume practice in association with Dr. Northrup.

Dr. B. R. Corbus and bride returned to Grand Rapids the first week in September after a month's honeymoon spent in the east.

Doctors Eggelston and Pritchard of the Battle Creek Sanitarium enhanced their golfing skill on the Highlands links at Grand Rapids September 21.

Butterworth Hospital, Grand Rapids, is reorganizing its Out Patient Department.

County Society News

GENESEE COUNTY

The Genesee County Medical Society met for noon luncheon at the Hotel Dresden on Wednesday, September 7, President Orr presiding. Dr. J. S. Pritchard of Battle Creek spoke on "Non-Tuberculous Lesions of the Chest." He showed about 40 lantern slides illustrating the cases presented. These cases included Hodgkins Disease, Malignancy of the Lung, Aneurysm and other Cardiac cases, Sequelae of Pneumonic Infections, Syphilis, foreign bodies, pleural calcification, Pneumothorax, Empyema and Hemothorax. Dr. Pritchard is a very clear and forceful speaker and his address was most enjoyable.

W. H. MARSHALL,
Secretary.

Correspondence

September 15, 1921.

Dr. F. C. Warnshuis,
Michigan State Medical Society,
Grand Rapids, Mich.

My Dear Dr. Warnshuis—Your letter of August 29 has just reached me, as I have been away upon my vacation.

I am very much obliged to you for bringing to my attention criticisms which were apparently going about the state concerning the University. I note that you say that it is being said, "that professors and clinical men connected with the University and Hospital were receiving a percentage or a commission on each operation or case that they attend, in addition to their salary." It is not easy for me to see how such a ridiculous rumor originated. Let me say categorically that there is no member of the staff of the Medical School or Hospital who receives or ever has received any percentage or commission for any operation or other service connected with the care of patients, or in any other connection.

Each member of the staff of the Hospital receives a salary determined by the Board of Regents, and this is in no way influenced by any work which he may do for the University. Moreover, a casual examination of the salaries will show that they are far below what these gentlemen would earn if they devoted their time to private practice, and that they are, in fact, holding their present positions at very great sacrifice.

I would be glad if you would publish this letter in The Journal, in order that no further doubt may exist in regard to the conditions of salaries or compensations in the University Medical School.

With best regards, I am

Yours sincerely,

HUGH CABOT,
Dean.

September 17, 1921.

Secretary,
Michigan State Medical Society,
Grand Rapids, Mich.

Dear Dr. Warnshuis—The Educational Committee of the Michigan State Tuberculosis Society has planned to put on an Educational Campaign during the month of October, beginning the 9th, with a universal Tuberculosis Sunday. The following week will be given over to Education, which we wish to make very intensive.

We wish through your Journal to ask the cooperation of all physicians in Michigan in endeavoring to put this campaign on and in assisting in every way to bring the message before the people.

COMMITTEE ON EDUCATION,
Otto L. Ricker, M. D.,
Chairman.

Deaths

Doctor John J. Marker of Eloise was born in Wayne in 1862 and was killed by a Michigan Central train September 2, 1921, when his automobile stalled on the tracks.

Dr. Marker received his medical degree from the University of Michigan in 1890. He became First Assistant Medical Superintendent and later Superintendent of the Wayne County Hospital at Eloise.

The doctor was a member of the Wayne County Medical Society, the Michigan State Medical Society, the American Medical Association, Michigan Sovereign Consistory and Mystic Shrine. He was an enthusiastic sportsman and greatly beloved by his many friends.

He is survived by a son, Morrison Marker; a daughter, Mrs. Donald Kiskadden, a mother, and two married sisters.

Doctor T. A. McGraw was born in Detroit November 4, 1839, and died in the same city September 6, 1921. After graduating from the Detroit Public Schools, he attended the University of Michigan, from which he received an A. B. in 1859. In 1863 he graduated with a M. D. degree from the College of Physicians and Surgeons in New York. After receiving his medical degree, Dr. McGraw enlisted in the Federal Army and served through the remainder of the Civil War, being brevetted Captain in the Medical Department.

He was one of the founders of the Detroit Medical College in 1868 and served as Professor Surgery till 1914. When this school was incorporated as the Detroit College of Medicine, Dr. McGraw was chosen President of the Faculty. He retired from practice and resigned his Professorship and Presidency of this school in 1914.

The invention of the McGraw ligature and several other surgical methods are among Dr. McGraw's contributions to surgery. In recognition of his services to the profession, the University of Michigan conferred an honorary degree of LL. D. upon him in 1906. The doctor was a member of the Wayne County Medical Society, Michigan State Medical Society, American Medical Association, American Surgical Association, Loyal Legion, Detroit Board of Commerce, Detroit Club and the Country Club.

He was married July 10, 1886, to Miss Alice Simpson of New York City, soon after his discharge from the army. He is survived by one son, Dr. T. A. McGraw, Jr., and by one daughter, Mrs. C. A. Lightner.

Dr. McGraw was President of the Michigan State Medical Society in 1887 and was one of its founders in 1866. He was also an ex-President of the American Surgical Association.

Book Reviews

DISEASES OF THE DIGESTIVE ORGANS—DIAGNOSIS AND TREATMENT. Charles D. Aaron. Third edition, revised, enlarged. Cloth, 862 pages, 164 illustrations. Price $10. Lee and Febiger, Philadelphia and New York, publishers.

A book that has reached a third edition requires no introduction. It has gone through the ordeal of criticism and has entered the permanent biblio-

graphy of medicine. The third edition of Aaron's Diseases of the Digestive Organs has been considerably enlarged and has been brought up to date. It follows the physiologic path of the digestive tract, beginning with discases of the mouth and taking up in succession the pharynx, esophagus, stomach, liver, gall, bladder, bile ducts, pancreas, small intestine, vermiform appendix, cecum, colon, sigmoid flexure, rectum and anus. It deals less in theory than in the latest practical methods of diagnosis and treatment. Not one of the least outstanding merits of the work is its clarity and system and the ease with which desired information can be obctained by means of it. Among other evidences of the up-to-dateness of the work, the latest method for the removal of the duodenal contents and the non-surgical drainage of the gall bladder are given full presentation and are illustrated by instructive color plates. The non-surgical treatment of hemorrhoids is also fully described, with accompanying illustrative detail. We bid the book a hearty welcome. It ought to be in the hands of every twentieth century practitioner.

TREATMENT OF ACUTE. INFECTIOUS DISEASES. Frank Sherman Meara, M. D., Ph. D., Professor of Clinical Medicine, Cornell University. Second edition, cloth 806 pages. The McMillan Company, New York.

It is refreshing, indeed, to have a book duvoted to therapeutics and the treatment of diseased conditions come to a reviewer's desk. On several occasions we have commented that the profession as a whole is not giving sufficient thought to intelligent therapy tnd that the spirit of empiric prescribing predominates to our detriment.

In this work the author takes up individual diseases in a thoroughly practical manner explaining each detail of procedure so that the student and reader mty actually apply the principles set forth. Definite information is given in regard to physical therapy and the use of drugs.

In our opinion this is the most valuable text upon the treatment of infectious diseases that has come to our desk within the past three years. It is a text that we should like to see in the htnds of every active, practicing physician because if the reader will but follow the therapy that is discussed in this book in the treatment of diseases that are covered, there will be a startling improvement in the therapeutic processes of this man. We most sincerely tnd heartily commend this publication.

TO PHYSICIANS OF MICHIGAN

The vigorous campaign, which has been carried on in Michigan for the past three years, for the control of Venereal Disease will result in untold benefits to the coming generations, as well as relieving much of the misery and suffering in the present.

The number of cases reported so far this year is shown below:

VENEREAL DISEASE REPORTS
Jan. 1 to Sept. 1, 1921.

Gonorrhea	5,595	1,090	6,685
Syphilis	2,943	2,239	5,182
Chancroid	99	9	108
Total	8,637	3,338	11 975

In accordance with the new law, physicians are no longer required to give the name and address of patients on C. V. D. prescriptions and this change has been welcomed by most physicians, particularly in cases of tertiary syphilis.

There is enclosed herewith a new circular on the diagnosis of gonorrhea in the female to which your attention is invited.

The Department is glad to have your correspondence relative to any medical or social problems in connection with venereal disease or any other communicable disease.

Prompt reporting of cases is the first essential in the control of any communicable disease.

Thank you.

Cordially,

MICHIGAN DEPARTMENT OF HEALTH
R. M. OLIN, M. D., Commissioner.
W. J. V. DEACON, M. D., Director,
Bureau of Communicable Disease.
A. A. SURGEON, U. S. Public Health Service.

ANNUAL MEETING OF THE FELLOWS OF THE AMERICAN COLLEGE OF SURGEONS OFFICIAL NOTICE

In accordance with Article '111 of Section 2 of the By-Laws, the annual meeting of the Fellows of the College is called for 3 o'clock on the afternoon of October 27 in the Ball Room of the Bellevue-Statford, Philadelphia. The annual election of members of the Board of Governors will occur at that time.

Each Fellow of the College is respectfully requested to be present.

FRANKLIN H. MARTIN
General Secretary.

GOOD ROADS AND BETTER BABIES

Michigan and most of the other states have a big rural population throughout which babies are being born every day, and while it may seem a long way from good roads to better babies, the two are quite closely connected. It makes little difference and is of little advantage as far as the individual case is concerned if the city or town physician is a wizard at treating diphtheria, if long before he can arrive at the farm home the little child's throat has been closed by the disease, or the little heart stopped by the depressant poison. Consequently the necessity for good roads.

Of what use is the hospital at the county seat if the woman whose life depends upon immediate care cannot be taken there swiftly and comfortably because of the bad roads. Another reason for good roads throughout the country. If the farms are made accessible to the physicians and nurses and the hospital and the health center made accessible to the farm, nature and skill will do the rest. While the medical and surgical honors are generally claimed for the city, the country doctor is often possessed of a skill as complete as his heart is big, but he needs the aid of good roads to aid his skill in ministering to the community.

The babies and their mothers in the rural districts need care, the visit of the nurse, the services of the physician, often of the surgeon, and how are they to have it quickly if between them lie miles of road almost impassable to both automobile and buggy? Through good roads the family on the farm is made more accessible to the physician, nurse and hospital, and the danger in travel is materially reduced.—The Flint Daily Journal.

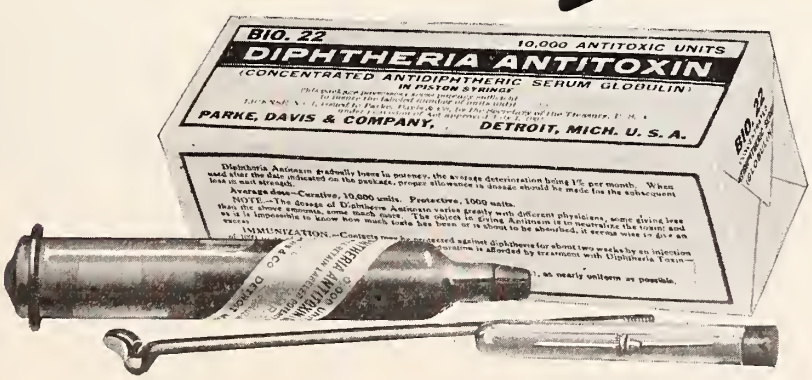
What the Label Means

THE Diphtheria Antitoxin that bears the Parke, Davis & Company label is a highly concentrated product that contains a minimum of total solids.

It is given a three-year dating, and to make unsparing compensation for a possible shrinkage of antitoxic power we add a 40% excess to the number of units indicated by the label. Thus a package represented as one of 10,000 units actually contains 14,000 units at the time of marketing.

When you inject our Diphtheria Antitoxin you may do so with the assurance that you are employing a product which is unsurpassed in refinement, potency, concentration, absorbability and purity.

Parke, Davis & Company



The Secretary of the Society will please notify the State Secretary immediately of any errors or change in these offices.

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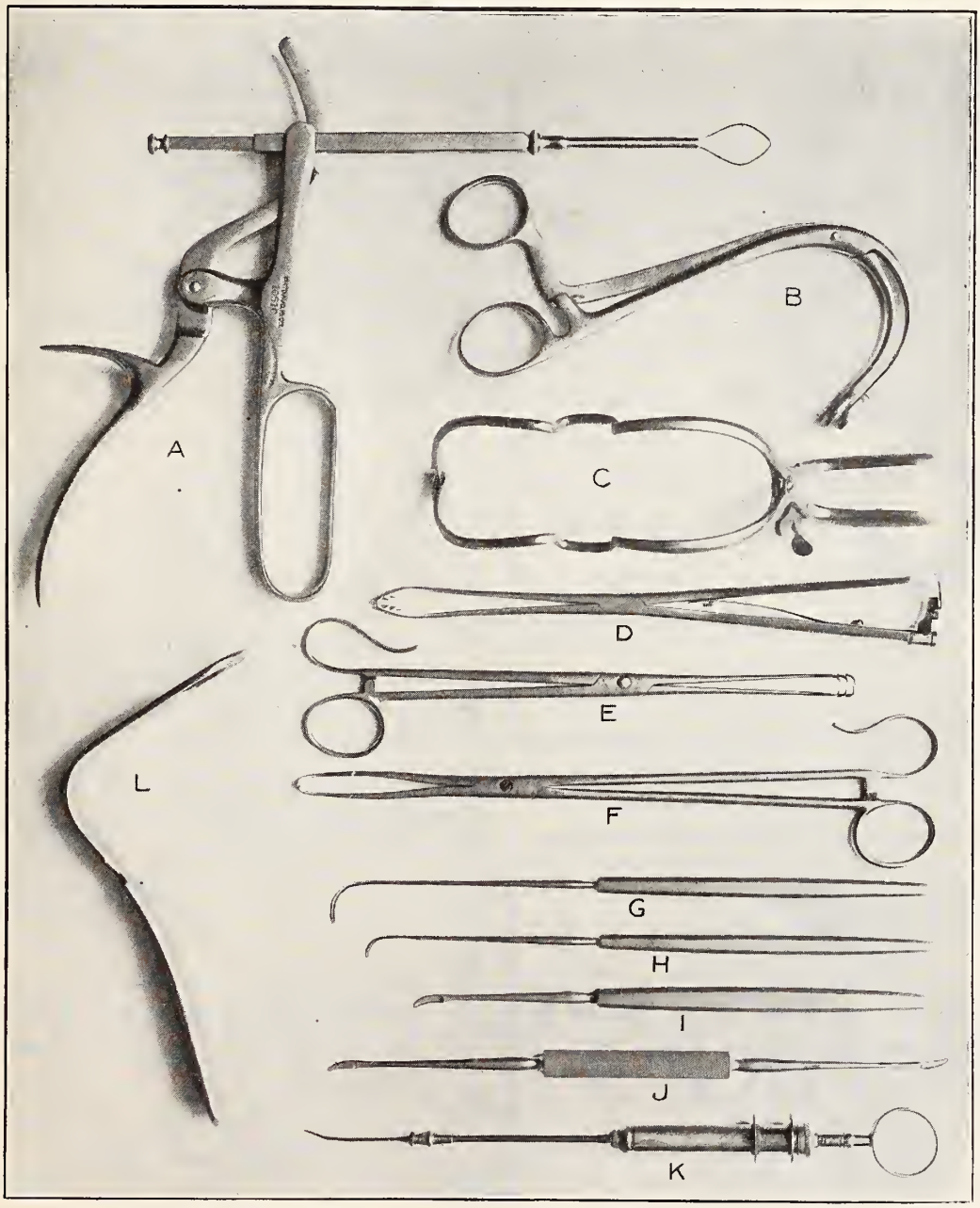

We are responsible for any unethical wording in our advertisement last month as final proof was not submitted to Drs. Robb or Pino.

They are all of special design and their practicability is assured. Each instrument is fully guaranteed against defects and is made of the highest grade material obtainable.

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The Journal
OF THE
Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

WHOLE NUMBER 231
VOLUME XX—No. 11

GRAND RAPIDS, MICH., NOVEMBER, 1921

YEARLY SUBSCRIPTION, $5.00; SINGLE COPY, 50c

CONTENTS

ORIGINAL ARTICLES

Office of Publication,
Powers Theatre Building, Grand Rapids, Mich.

Entered as second-class matter March 12, 1913, at Grand Rapids, Mich., under the Act of March 3, 1879.

CONTENTS—Continued

THE complicated technic incident to the preparation of solutions of Arsphenamine with the attendant danger of improper alkalization as well as the rapidity with which the Arsphenamine oxidizes and forms toxic compounds during the preparation of the solution, make it apparent that the widespread use of this product is dependent upon the development of a safe and ready-to-use solution.

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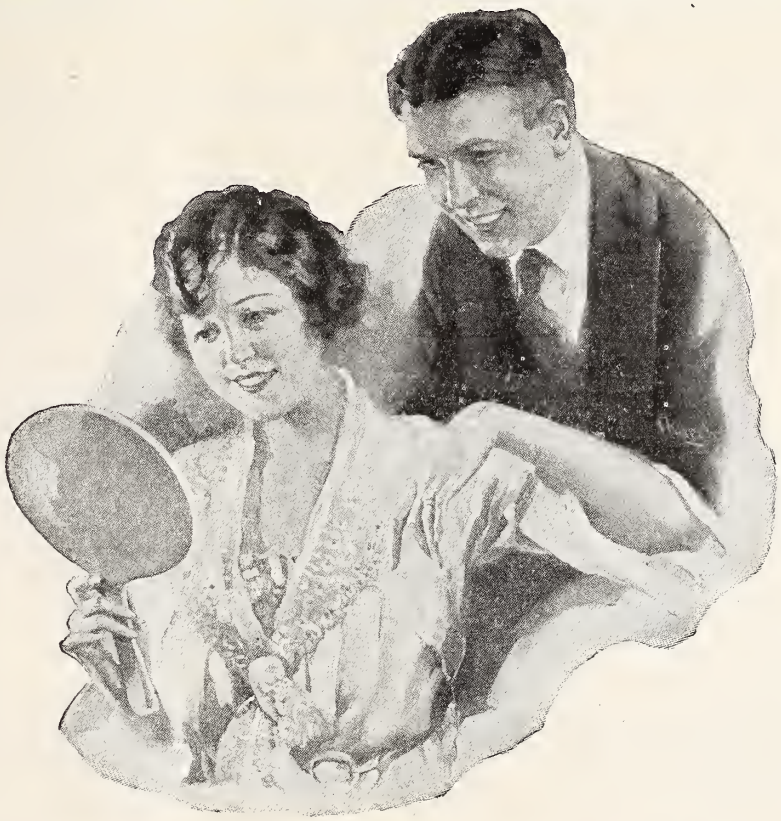

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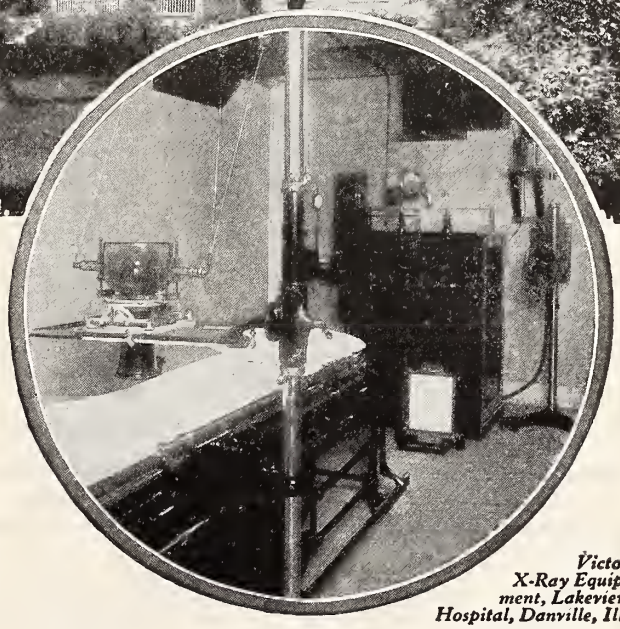

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Original Articles

ADDRESS OF THE DEAN AT THE OPENING OF THE MEDICAL SCHOOL—UNIVERSITY OF MICHIGAN*

HUGH CABOT, M. D.
ANN ARBOR, MICH.

I find myself this morning in a difficult position. Difficult for two reasons, firstly, because I am taking up the reins laid down by a great man and secondly, because this is a time when many problems in the teaching of medicine press for solution. There is perhaps more change in the air than is ordinarily the case. In regard to the latter difficulty, one should perhaps not complain since it adds zest and interest to life and we may be sure that no monotony or drabness will surround the next few years of medical teaching. In regard to my first difficulty, the case is far otherwise. To classify Dr. Vaughan as a great man is no idle compliment and the doubtful have merely to look at the monument he has left here for their answer. Many would perhaps be glad to be judged by their intensions, but in the long run, the world will probably judge us by our results and it is reasonable that we should judge Dr. Vaughan by his results. He came here in the early days of organized medical teaching in this country. More than thirty years ago, he became the executive officer of this Medical School and it is strictly accurate to say that this school is his monument. Its policies have been worked out, its faculty has been brought together and stand as the result of his extraordinary executive capacity.

In the days when it became his duty to decide, it required not only fore-sight in decision but unusual boldness to undertake the building up of a great medical school without the facilities of a large city. No such schools existed or to the best of my knowledge ever had existed, and the soundness of the proposition that a medical school giving complete instruction in all branches, both preclinical and clinical, could be built up in a city of less than 10,000 inhabitants might reasonably be doubted. As a relatively new comer here, I can without bias estimate the position of this school in relation to the other schools of the country and I can say without hesitation that it stands in first rank, that it has always stood high in the character of its pre-clinical instruction and that, with the upbuilding of the University Hospital, it has stood high in the character of its clinical instruction. The decision made under his administration to retain the clinical teaching in Ann Arbor rather than to allow it to be transferred to Detroit is evidence of great wisdom and great fore-sight. Today discussions concerning the possibility of building up clinical departments in small cities are being answered the country over by pointing to the example of the University of Michigan. It means that the policy laid down by Dr. Vaughan has been a convincing success.

The character and standing of this faculty must be a lasting monument to him as a judge of men. All obstacles which have been here overcome, particularly in regard to the teaching of clinical branches are a lasting monument to his judgment and prevision. We may properly regard him as one of the greatest medical educators that this country has ever produced and we may fairly doubt whether we shall be able to direct the policy of this school with equal judgment.

It is however proper at this time that I should state as clearly and as frankly as possible the fundamental objects which I believe to be comprehended under the term "policy" of this school. A medical school today may be thought of as having three teaching functions and presenting three ideals or facets to the world:

1. The teaching of undergraduates.

*Delivered Sept. 28, 1921.

2. The teaching of graduate physicians and the advancement of the boundaries of medical knowledge.

3. The teaching of the public in matters of public health and health policy and assisting in working out the relation of physicians and hospitals to the people of the state.

POLICY IN REGARD TO TEACHING OF UNDERGRADUATES

I may say at once that unless I gravely mistake the temper of this faculty no fundamental change is contemplated. Clearly the most debatable and debated question is that of so called "full time" instruction in the clinical branches. Here no change of policy is contemplated since it is more than two years since this faculty voted its approval of the theory involved. This is not the time nor the place to re-state the argument concerning full time teaching but it is proper that our position should be made clear at the outset.

The theory of full time teaching in the clinical branches is relatively simple and concerning it there is little difference of opinion. That it is a desirable method, most will agree and this agreement has come from the clear demonstration of the unsatisfactory character of part time teaching in these branches. It will be generally admitted that part time teaching involves a dual allegiance, one to the university and one to the individual himself and this divided allegiance has resulted in teaching somewhat less than satisfactory. That the difficulty is widely recognized and generally admitted is clear since most of the great medical schools in the country are experimenting with such full time teaching in some form.

But, it is not over the theory of full time instruction but over the practice that doubt and difficulty has arisen. It is undoubtedly true that today there is no well demonstrated plan of full time teaching in clinical branches which is regarded as satisfactory by a large number of those competent to an opinion. Discussions of the matter have been considerably impeded by the failure to draw a distinction between the application of this principle to medical schools situated in large cities and its application to those situated, as we are, in small cities. But the difference is very real and cannot be omitted from any discussion without seriously compromising the soundness of the conculsion. The employment of part time teachers for all the clinical branches is a relatively simple matter and comparatively more satisfactory in those schools situated in large cities with quantities of clinical material at hand. If, however, part time teaching has been unsatisfactory in the group just referred to, it has been far more unsatisfactory here. The teacher must here stretch himself thinner and thinner over the field he is required to cover and may in the end fail to achieve success either as a teacher or as a practitioner of medicine. Thus, clearly the problem is one of paramount importance and we must bring to it our best judgment applied always with patience and respect.

It is my own well considered opinion that full time instruction in clinical subjects will not achieve its best results if the character of the instruction is essentially altered from that given in the past by the schools employing part time service. If as the result of full time teaching, we are to see it fall into the hands of those who are essentially scientists, unfamiliar with the art of medicine, I shall be unwilling to admit that we are doing our full duty to the student. We must, I believe, continue to attract to these teaching positions men of experience both in the science and in the art of medicine. If this premise be admitted, it follows necessarily that the most difficult question is one of financing. We shall require men who have achieved distinction and are able to command relatively large incomes. That the Medical School can properly afford to offer them salaries equal to their earning capacity as practitioners, I do not believe. But it must be prepared to offer them some thing approaching their market value or in the long run they will not come.

As I have already intimated there is no general agreement as to how the principle of full time teaching shall be put into practice. Many methods are being tried. Some of them are far reaching and some of them are very moderate and hesitating. The fact of the matter is that there is no body of experience entitling anyone to pass final judgment in this matter. All are experimenting and the more methods that are tried in good faith, the sooner we shall be able to accumulate a body of fact entitling to an opinion.

But if we are to experiment we must try the method in a reasonable way such that our conclusions will be entitled to weight. Enough departments must be put on full time to allow drawing of sound inferences and at the same time the school must not so far commit itself as to lose its flexibility and be unable to adapt itself to reasonable changing conditions. It would indeed be

a bold man who would assert that he was sure of the best method to utilize "full time" in the clinical branches. In working out this experiment on the basis which I have stated, it is essential that the university should respect its commitments and no agreements expressed or implied can properly be disregarded. Furthermore, we must at all time keep our minds open and preserve a decent respect for the opinions of others.

On the other hand, however, this experiment is entitled to an honest trial. Here we have elected a method whereby the whole weight of financing this work does not fall upon the tax payer but is borne in part by the legitimate income of the hospital. It is my judgment that by distributing the burden in this way, it will not bear too heavily upon the school and is far more likely to succeed than any other yet attempted method.

I do not need to remind you that the plan has been much criticized but most of the critics have not faced the problem and offered no solution unless it be that we should ask the tax payer to assume the whole burden which suggests that they really desire failure and regard this as a most convenient method of getting it. There has been much loose talk about the state's interference in the practice of medicine, apparently in entire disregard of the fact that the state has been gradually insinuating itself into the practice of medicine for two generations. It has been alleged that the competition thus introduced is unfair when as it seems to me, it is far less so than under the system of part time when with all the advantages which accrue from a university connection, the clinical staff still competes with its less fortunate brothers. We have even been accused of attempting to commercialize it. The utmost limits of commercialized medicine were reached in the days, happily now passing, when some medical schools with a faculty of purely part time teachers were nothing more or less than feeders for the consulting rooms of the faculty. This is commercialized medicine if you please. Our proposition is pracisely the reverse. The method suggested for the conduct of the University Hospital has been criticised on the ground that it would deprive physicians of their patients and ruin their practice. If one looks carefully at this proposition, it at once appears to have no basis in fact. If half of the physicians of the State of Michigan were to send to the University Hospital one patient a year, we should be unable to cope with the number. In these discussions, it has, I think, been overlooked that this university is an institution of the State and that it must be conducted with due and proper regard for that fact. Beyond question, the physicians are entitled to consideration but so also are the sick and the tax payer. We are not prepared to admit that the physician is entitled to exclusive consideration in the working out of this problem, but we propose that he shall have every consideration and every respect. We are prepared to consider any suggestion and any criticism which is constructive and which is an honest attempt to aid in the solution of the problem. We are not hide bound in our opinions and do not say that the method here adopted is the only one or the best one.

THE TEACHING OF PHYSICIANS AND ADVANCEMENT OF THE BOUNDARIES OF KNOWLEDGE

It is clearly one of the great duties of the Medical School to be prepared to assist physicians not only in the management of any particular patient, but in the general management of disease. One might, I think, properly regard the Medical School as a reference library in the diagnosis and treatment of disease. We should be prepared to put at the disposal of physicians the knowledge here accumulated and advise them upon those methods which in our opinion are sound and those which are not sound. Only in this way will the Medical School discharge its duties to the public and maintain a sound relation to the great body of those who must care for the sick of the country.

But if we served no other purpose than to teach our students wisely and to present the problem of modern medicine skillfully to our brother physicians, we should lose sight of one of the great functions which is properly to be expected of us, namely research. Research requires for its proper prosecution a highly special environment and it is rare that the physician with a private practice can at the same time carry on far-reaching investigations of medical problems. It is the duty of the Medical School to see to it that an atmosphere congenial to research exists and that a reasonable proportion of its funds are at the disposal of those who have both the ability and the desire to work in this field. The University will do well to make congenial abiding places for those with investigative minds though having perhaps little or no capacity to achieve distinction in the turmoil of the world. Such men allowed to grow up under the proper surroundings may well con-

tribute more to the sum of human knowledge and to the alleviation of human ills than many of their more practical minded brothers.

INSTRUCTION OF THE PUBLIC ON QUESTIONS PERTAINING TO PUBLIC HEALTH

Though it may be a somewhat novel conception, it seems to me clear that the medical school, particularly of a State University must do its share in the work of disseminating sound opinion on medical questions. There is today a large and growing group of agencies part of whose function is the dissemination of knowledge concerning public health. With these agencies and perhaps particularly with the public health officers and public health associations, it is clearly the business of the University through its medical department to cooperate to the fullest extent. If we are prepared to admit that there can be no sound public health without as an antecedent, a sound public opinion then here is a great work for the university and one to which it must be prepared to give considerable time. Insofar as it has officers competent to speak with authority and trained in the business of transmitting information to the less informed, these officers should be at the disposal of the state and public health agencies to assist in the great campaign for building up and strengthening of public health.

As a part of this function and one which at the moment is of great importance is the dissemination of knowledge in regard to the soundest and best relationship between the medical profession and the public. It appears to be true that at the present time this subject is attracting more attention than at any other time, certainly for many years. With the growing complication of the field of medicine has arisen difficulties in adjustment between the profession and the public. The expense of the practice of medicine to the physician has enormously increased and has in more or less direct ratio increased the expense to the patient. This has given rise to much discussion. That the public has a real case in its desire to obtain medical care at a reasonable price is true. But it is even more true that the medical profession is entitled to great consideration and should properly be regarded as the best witness concerning the difficulties surrounding any new adjustment. It is not necessary here to go into the suggested remedies which have included various forms of compulsory health insurance and various remedies classified under the very vague phrase of "state medicine." I desire only to point out that it is my opinion that the State Medical School should be prepared to bear its part in this discussion and I desire to take this opportunity of making clear the position which this school will take in the present discussion. Any proposition for the amelioration of real ills in the present adjustment which leaves out of account or fails to give great importance to the maintenance of the present relationship between the physician and the patient is in my judgment doomed to failure in this democracy. It is the essence of the American spirit that it desires freedom of choice and though such choice may not always be wisely made, any attempt to curtail such choice will meet irresistible opposition and will fail. Furthermore it appears to me clear that no proposition looking to change can be successful which will result in the deterioration of the standing of the medical profession in the community. The standing of the physician in the community has always been a high one and he has been looked to as an almost public official whose concerns were less personal and more public than those of most of his brethren. Now, any proposition to change present conditions which will importantly alter this relation, which will make the medical profession one of lesser dignity and lesser importance, though it might temporarily appear to remedy the ills, would in the end defeat its own purpose and have a disastrous effect upon the public health. Unless the medical profession be encouraged to continue in the future as in the past and unless the individual physician continue to regard himself as having duties to others far greater than to himself, advancement in medicine will be less rapid, our ability to deal with disease will improve less certainly and we may well see our civilization fall because of the failure to cope with the diseases with which it is constantly menaced. I think I may safely say that this faculty will be found upon the side of the medical profession, that it will always sympathize with the demands of the public for improved medical service but that it will cast the weight of its influence in favor of those changes which maintain the dignity of the profession and oppose those which reduce the profession to hirelings of the state, of the community or of the corporation. I take your time to make these statements because there has, I think, been misapprehension in the minds of the physicians of this state as to the views held by this faculty. This misapprehension I desire to correct to

the end that the most cordial relation may exist between this faculty and the medical profession.

IS THE MORTALITY OF APPENDICITIS INCREASING?

H. E. RANDALL, M. D., F. A. C. S.
FLINT, MICH.

It is diseases and disturbances of the gastro-intestinal tract that gives the general surgeon the great part of his work. Affections of the pituitary gland, the tonsils, thyroid gland, stomach, duodenum, gall bladder, appendix, diverticuli of the bowels, and diseases of the rectum. The new tract and its offshoots devised in the process of evolution after the abandonment of the old alimentary tract which formerly passed through the brain and the spinal cord, furnish the majority of surgical operations performed on the human race.

Most of the life saving operations that are done are called for by inflammation, perforation, neoplasm, mechanical derangements of the gastro-intestinal tract. These are penalties and risks that the higher animal pays for grade in the evolutionary scale.

The appendix vermi formis is one of the vestigal organs which nature has not yet adjusted or eliminated and mankind still carries an unused and useless organ which may finally be eliminated.

That the mortality of appendicitis should be increasing faster than the rate of population has lead me to make some inquiries and investigations which I wish to present to you. This fact was first drawn to my attention by a former editor of Bay City. I did not believe this true at the time, but Mr. Wm. F. Petrie, in charge of the vital statistics of this state, gave me the following figures:

	Per 100,000 population.		
1913.....259	8.	1916.....521	16.8
1914.....411	13.7	1917.....493	15.7
1915.....464	15.3	1918.....477	14.98

This shows an increase up to 1916 and the last two years a slight decrease. In 1916 the deaths from appendicitis were double those of 1913.

The statistics of England while showing a lower mortality at the same time has also doubled.

1901.....38	per million	1911.....75	per million
1902.....45	" "	1913.....68	" "
1903.....52	" "	1915.....67	" "
1905.....57	" "	1917.....67	" "
1910.....66	" "	1918.....72	" "

The death rate in Michigan is twice that of England.

The death rate in Holland from 1901 to 1904 was 88.8 per million. In Denmark 12 per million in 1914. Sweden in 1905, 16 per million. In Spain it is rare. Rendle Short says that the largest consultant in Madrid just before 1914 had but 4 cases per year.

The colored race rarely has appendicitis. At Johns Hopkins there were 12 whites to 1 black with 1-5 admittance colored. In my own practice I have seen but two cases in colored people. Dr. W. T. Henderson of Mobile, Alabama, whom many of you know, replied to my inquiry that he estimated there were 40 cases in the whites to one in the black race, the population in Mobile being about equal.

Appendicitis in Asia and Africa is reported but rarely in the natives, but more frequently in the foreigners, yet diarrhea and intestinal diseases are of frequent occurrence. About 20 years ago I wrote an article in which I stated that appendicitis probably followed intestinal infections.

It would seem from Short's article in the British Journal of Surgery that U. S., Great Britain, probably Denmark and Sweden, the incidence of the disease is high. In Spain, Greece, Italy, it is low.

Animals in a wild state rarely have appendicitis. Veterinarians assure me that it is a common occurrence in domesticated animals. It is quite common in apes in captivity.

In Asia, Africa and Polynesia the disease is rare except where natives take to European methods or food.

In 15,000 soldiers seen in our Base Hospital No. 36, there were 156 cases of appendicitis, of which 97 were acute and 59 chronic. A peculiar feature among this service was that there wasn't a single case among civilians on war rations although we drew from a large district.

Not to make this paper too long and tiresome, I wish to give you the following conclusions:

1. Appendicitis is more prevalent in America, Great Britain, Denmark and Sweden, who are large consumers of meats and preserved foods, but there was no falling off during the war due to shortage of meat. The Esquimau has the disease but rarely.

2. It has been suggested that the vitamines in vegetables and grains as in the Africans and the Asiatics or the poorer fed nations may account for their immunity, notwithstanding their liability to diarrhea.

3. LaGrippe, local infections of teeth, tonsils, nasal accessory sinuses, tonsilitis,

seem to me to have no bearing on the prevalancy of appendicitis.

4. Appendicitis is increasing in the more civilized nations of the world.

5. The greatest mortality is between the ages of 5 and 15.

6. The state of Michigan is losing approximately 500 of its citizens each year from the disease, or as large as the attendance at this meeting.

7. In endeavoring to reduce the mortality there must be more prompt diagnosis and operations.

8. Inexperienced operators consume too much time in searching for the appendix with too much handling and exposure of the intestines.

9. The giving of purgatives before and after operations undoubtedly increase the mortality.

10. Sudden, acute abdominal pain in children usually means appendicitis.

11. The importance of diagnosing appendicitis from ridigity of the external oblique in the absence of ridigity of the right rectus muscle will further reduce the mortality of a disease in which the public and doctors all agree is a condition requiring prompt surgical intervention.

My own experience is that family physicians who recognize that ridigity of the external oblique in appendicitis even in the absence of ridigity of the right rectus will have a lower mortality than those who fail to recognize its importance.

DISCUSSION

DR. B. M. DAVEY, Lansing: Regarding the statistics the doctor has given I know very little. That appendicitis is operated by everybody's doing it would be one of the reasons, I think, responsible for the high mortality. Perhaps another reason is the late date at which our cases are operated, and thirdly, improper drainage in late cases. We should have more efficient drainage particularly in cases of a low appendix or the so-called subcaecal type, and in the cases we get late where the general peritoneum is becoming involved. In all cases operated after the first 24 or 36 hours the drainage tube should be left in for a greater length of time.

DR. R. J. HUTCHINSON, Grand Rapids: I, like Dr. Randall, have been called upon this last year to give this subject more attention than I have ever before. The fact that everybody is still doing it may account for two perforated cases being brought to me within the same week. I believe if the statistics were studied we would find that the greater mortality comes in the cases coming from the country. I have often thought of this and I think it is readily explained by the fact that most country physicians are quite busy, especially in time of epidemics, and that the laity do not call the physician until they think the case is going to be serious.

As we all know, in appendicitis if you wait 24 hours you have lost the golden opportunity for an operation without suppuration. In the first place, a lot of these cases are obscure and it is often impossible for the diagnostician to make a diagnosis on the first visit. Perhaps the doctor does not get around to see the case for two days after he has been called and when he does he finds a large abcess and a peritonitis. The doctors having these cases want to get the patient off to the hospital and off their hands and they do not consider the surgeon in the matter. I think part of the trouble is that the general practitioner cannot help it; his work is so great and he has so large a territory to cover that it is impossible for him to attend to his patients properly.

Again, I recall when I went to Grand Rapids I think I could safely count all the operators we had there on one hand, especially the men who were doing much work. Today I doubt if you counted them by the hairs of your head you would have them all. It is a frequent remark to hear a man say, "Why all the abdominal surgery I do is to remove an appendix or something like that." Where in surgery do we find more complicated cases and more cases that test your skill than in cases of acute appendicitis? I do not wish to knock any man who is trying to become an operator, but I think he might better pay for his instruction in some large medical center where he has cadavers to operate on first and especially where he is able to take his training with a man who is doing a large surgical practice, and not subject human lives to his operation or to his ability until he can properly operate. I do not believe that any man who is not capable of operating on anything that is found in the abdominal cavity is capable of operating on an acute appendicitis case. I believe, as Dr. Randall has said, that many of these cases that die in the hands of good surgeons are half killed by the treatment they get at home before being referred to the surgeon. I believe that salts and castor oil help to kill more cases of appendicitis than perhaps any other treatment administered.

DR. N. M. ALLEN, Detroit: I think the most important matter in reducing the mortality of appendicitis is early operation. There are two facts brought to everybody's attention who is doing abdominal surgery or appendectomy. One is that the average case of appendicitis, or at least 40 per cent of the cases, comes to operation late, often at a time when drainage is necessary, and even with localized peritonitis and abscess. The other is that there is no mortality in the operation for appendicitis at an early stage. We know that after 24 hours appendicitis carries with it a mortality of 5 per cent, after 40 hours we have a mortality of approximately 10 per cent, and after 48 hours practically 20 per cent of the patients operated on die. I think if this is brought to our attention and we realize these things and make it a point to warn the patients and warn the men who refer their surgical cases to us, that the mortality can be reduced. It is a well-known saying, I think, of Dr. Moynihan that "it is much better for the patient to have an operator or a surgeon with questionable ability early than a surgeon with national reputation on the third or fourth day." In appendicitis as in gastric or duodenal ulcer the patient should be operated early. I think the main point in the mortality of appendicitis as in other conditions is the diagnosis.

DR. F. B. WALKER, Detroit: My first thought on this paper is that it should be read before the Medical Section instead of this one. I believe it has been pointed out already that the mortality is due first to late operation and the desires of the practitioner to carry the patient through without an operation, and secondly, to the illegitimate use of cathartic remedies.

DR. C. L. BARBER, Lansing: I think the real salient point in the early treatment of appendicitis, and the blame laid at the door of the family physician, was omitted in the paper. The man who has done the most, I think, in this country in his teaching to lessen the mortality of appendicitis is Dr. A. J. Ochsner of Chicago. The method of early treatment which he calls his "rest" treatment—absolute rest of the alimentary tract and absolute prohibition, as the Doctor said, of cathartics, is one of the main reasons for the high mortality of appendicitis. I do not agree with the writer that in

order to keep the mortality down it is absolutely necessary to operate for appendicitis within the first 24 hours. As Dr. Hutchinson said, it is sometimes absolutely impossible to make a diagnosis of appendicitis on the first visit. I do believe that the general practitioner or the surgeon who is called to see a case of appendicitis or one that he suspects is a case of appendicitis should employ the Ochsner method of absolute rest for the appendix and the alimentary canal, because on all sides excepting one the appendix is surrounded by tissues that will prohibit the spread of infection, and nature itself will do the rest if you do not disturb the peristaltic action of the bowels. I think in every case that a man suspects is appendicitis he should administer no medicine or food by mouth. If he has to supply fluids at all, he should do so by the rectum and give the medicine, if he gives any at all, hypodermically.

DR. WILLIAM R. CLINTON, Detroit: I think if these bad cases develop a fistula they get well. We will save some patients where the small bowel is distended if we do a cecostomy and following it up with hypodermoclysis and morphine to keep the respirations down, after the method of Crile.

DR. NATHANIEL GINSBURG, Detroit: I want to say that one of the difficulties met with in appendicitis cases is that of differentiating it from a duodenal ulcer. I think the man who procrastinates after seeing an abdominal case from that time shares the responsibility in the mortality of that case or any other serious case. I believe the time has gone by when the man with a medical degree allows a medical case with a suppurating process to go on without operative treatment for nature to take care of. I think the essayist has brought a very timely paper before this Section.

In the Philadelphia hospitals it is very seldom there is a death from perforation of the appendix or duodenum. We know that the death rate is decreasing. In my experience the mortality is not decided by the individual doctor but by the time element. I have seen patients walking around with appendiceal abscesses; in fact, I had one in my office who had been walking around with a localized abscess for eight days.

As to operative technic, after 48 hours it is unnecessary to consider the anatomic relations, just cut down and free the appendix. Murphy, years ago, spoke of the danger in transperitoneal approach to the appendix and the breaking down of the adhesions which nature has established, thus disseminating the infection. Those are important factors, but I believe the most important factor is early diagnosis. The blood supply of the appendix differing from the gall-bladder is more predisposed to pathologic processes because it contains the largest amount of lymphoid tissue in the abdominal cavity. It has been referred to as the "abdominal tonsil." This may predispose to infection.

DR. W. F. METCALF, Detroit: I will not go into the statistics of this paper, neither will I repeat anything heard in the discussions that preceded. I wish to advise strongly on a more careful history in these cases. Of course, every one admits that early diagnosis is the important salient feature. Early diagnosis implies a carefully taken history. Often in childhood there will be different attacks of indigestion with a lack of development of other symptoms and these attacks are not diagnosed and could not have been diagnosed. I mention this only with the thought that in obscure cases often the appendix is not in the right iliac fossa. Frequently the appendix in cases of most virulent infection is not located in its proper anatomic location and will deceive a careful diagnostician. In such cases a blood examination is of great significance. In many such serious cases there will be no elevation of temperature, no disturbance of pulse rate, but the appendix will be gangrenous. In such cases the blood will show an increase in polymorphonuclear white cells. The blood test should be relied upon where there are no other symptoms except vomiting. Those cases which give a history of having had appendicitis in childhood often have the appendix misplaced clear up under the gall-bladder. I must emphasize the importance in difficult cases of a blood examination and the importance of not trying to find an appendix which nature has walled off unless it is just where we can pick it up without disturbing what nature has done. Drainage will give an opportunity for future operation. In a great many cases a future operation will not be required. I speak for immediate operation provided it be not general peritonitis. If the peritonitis has become general, I think we should probably wait a few hours to determine whether a wall has been formed.

In a few cases where the infection is streptococcic there will never be a wall formed and the patient will die whether you operate or not. That does not mean 48 hours; it may mean only 2 hours after the attack began, or it may mean several days.

DR. C. W. CLARK, Caro: The statement is made that most cases of acute pain in the abdomen in children mean appendicitis. I wonder if the surgeon thinks that every time you have a pain in your stomach you should be operated on and statistics made from that.

DR. JOSEPH H. ANDRIES, Detroit: I want to say a word in defense of the general practitioner. If you take the Year Book of Surgery and look up the statistics for the last year you will find that the mortality of appendicitis among surgeons in the best general hospitals has been 2 per cent. We find in other hospitals not so well regulated a mortality of 8 per cent. That tells us there is something radically wrong with the surgeons themselves. I think Dr. Metcalf hit the nail on the head when he said the time of the operation is not selected. You cannot help getting cases of appendicitis that have gone 48 hours, still taking them altogether your mortality should not exceed 2 per cent.

I find frequently that patients who come in after 48 hours are not very severe cases. If you take the blood count you will find they have a leucocytosis of 30,000, with 90 per cent polymorphonucleears. That is the dangerous case. It shows you that nature has not walled off the abscess and that any manipulation in that abdomen is going to open the lymphatics still more and the patient is surely going to the bad. We have had a number of these cases in which we waited 24 or 48 hours until the blood count changes. We find the leucocytosis goes down and the polymorphonuclears go down and I believe we have saved a number of lives by waiting.

There is another point which Dr. Metcalf mentioned, the gangrenous appendix. I remember a short time ago I was called to see a case of appendicitis. The attending man made a diagnosis of appendicitis and I was called in to corroborate his diagnosis. The patient refused to go to the hospital. This was about 8 p. m. The next morning the attending physician called to see the patient and found him sitting up, smoking a cigar. He laughed and said to the doctor, "You all made a mistake, I have not appendicitis." The attending physician called me up and I told him that the patient either had appendicitis where the septic material had discharged back into the cecum or else he was going to die and that I thought he should be operated immediately. I got a report that same afternoon that the patient had been taken with chills, had a general peritonitis and died shortly after. That is an important thing. You must remember that when you have gangrene of the appendix that the entire appendiceal wall dies off. That patient has no pain, no ridigity, no vomiting, nothing to indicate that he still has appendicitis, but the septic material goes into the abdominal cavity and the patient usually dies of general peritonitis in a very short time.

DR. H. E. RANDALL, Flint, (closing): I do not think there is very much to add to what has already been said. I like Dr. Clark's point. I wanted some one to jump on that particular point. The

thing I tried to bring out in the paper is that appendicitis is a surgical lesion requiring early treatment. If not, we are losing 500 patients a year, which shows we are not making an early diagnosis.

I think at least 40 per cent of the cases lack rigidity of the rectus, but in those cases you will find rigidity of the external oblique. I have been preaching that for years. Secondly, if a child has a sudden, acute pain it usually means appendicitis. If the family physician or surgeon would bear that in mind we would cut down the mortality.

I do not think we should rely on our blood count. I think it is a deceptive thing. It occasionally aids in the diagnosis in obscure cases. If you rely too much, you are going to be absolutely fooled. I have seen low counts and high counts and I do not think you should rely on that absolutely.

TRANSDUODENAL BILIARY DRAINAGE A VALUABLE DIAGNOSTIC AND THERAPEUTIC MEASURE

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The liver, the largest gland of the body, consists chiefly of delicate tissue disposed about the ramifications of the portal vein, being located chiefly in the right hypochondriac region in close proximity to the pyloric end of the stomach, the duodenum and pancreas.

Its functions are numerous and depend upon the properties of the liver cell which constitutes the anatomical and physiological unit of the organ. These functions consist in selecting substances from the blood, transforming them, excreting a part through the bile and returning a part to the blood.

While the bile is a secretion of some importance in intestinal digestion, it is chiefly an excretory product of comparatively little value to the human economy.

The liver is sometimes referred to as the "central laboratory" of metabolism, since it transforms the aminoacids into urea, sugars into glycogen, and stores up fats and iron for use as required.

One of the liver's most important functions is that of detoxication, rendering such poisons as arsenic and nicotine inert, and also acting in a similar manner on poisonous substances resulting from putrefactive processes in the intestinal tract.

We have only briefly referred to the various functions of the liver and wish to deal more particularly with the bile, which is a specific secretion of the liver cell. It is formed continuously to the amount of 500 to 800 c. c. daily, the flow being increased by ingestion of foods, especially those rich in fats and proteins.

The normal bile contains, in addition to water and salts, cholesterin, lecithin, neutral fats, soaps, sometimes a trace of urea, and a nucleo, albumin, the latter a product of the endothelium of the gall-bladder and ducts.

While the secretion of bile is a continuous process, its expulsion into the duodenum is intermittent, being periodically discharged during the digestive period.

The ejection of chyme from the stomach in normal individuals produces a discharge of bile into the duodenum where it is intimately mixed with the bile and pancreatic fluids.

The neuroregulatory mechanism which controls the storage in and excretion of bile from the biliary passages into the duodenum, is a very good illustration of similar reciprocating mechanisms found in various parts of the body.

Doyon[1] in his study of this neuroregulatory mechanism, found that the gall-bladder receives both motor and inhibitory fibers by way of the splanchnics, the fibers emerging from the cord in the roots of the sixth thoracic to the first lumbar spinal nerves, and pass to the coeliac plexus by way of the splanchnics. Motor fibers may also occur in the vagi. Sensory fibers capable of causing a reflex constriction or dilation of the bladder, are found both in the vagus and splanchnic nerves. Stimulation of the central end of the cut splanchnic causes a dilitation of the bladder (reflex stimulation of the inhibitory fibers), while stimulation of the central end of vagus causes a contraction of the bladder and a dilitation (inhibition) of the sphincter muscle at the opening of the common duct into the intestine.

During normal digestion the afferent path for the reflex which empties the gall-bladder is through the vagus, while the efferent path is through the splanchnics. This reciprocal action of the afferent and efferent nerves referred to by Meltzer, acts in harmony with what he terms the "Law of Contrary Innervation," a disturbance of which he claims is not only responsible for disturbances in the secretion and excretion of bile, but in other functions of the body.

Meltzer[2] states that "it seems quite safely established that the physiological discontinuous character of the flow of bile into the duodenum is regulated by a reflex mechanism dominated by the "Law of Contrary Innervation;" that the integrity of the gall-bladder is an important part in this reflex mechanism; that the discharge of bile can be greatly curtailed by the absence, or a restriction, of the discharge of chyme from the stomach, and that the discharge of bile through the papilla of Vater into the duodenum is greatly enhanced by the presence in the lumen of the latter of peptone and albumoses."

He also observed that the local applica-

tion of a solution of magnesium sulphate to the duodenal mucosa in the region of the papilla of Vater caused a relaxation of Oddi's sphincter, and suggested that, in cases of jaundice and biliary colic, a test be made of the influence of a local application of this salt introduced through a duodenal tube.

While Meltzer's "Law of Contrary Innervation" as applied to the simultaneous contraction of the gall-bladder and relaxation of the sphincter has not been demonstrated experimentally, it has, however, been shown that the application of magnesium sulphate to the duodenum in the region of the papilla causes at least a partial and temporary relaxation of the sphincter, thereby lowering the tension to such a degree that under normal conditions bile freely escapes into the duodenum.

The physical appearance and quantity of bile secured in this manner leads us to infer that the gall-bladder contracts in harmony with the relaxation of the sphincter, causing an expulsion of the gall-bladder bile, which is recognized by its color and viscidity.

The carrying out of Meltzer's suggestion with reference to the use of magnesium sulphate solution as a means of facilitating biliary drainage was made possible by the use of the duodenal tube which Einhorn[3] in 1909 demonstrated to be of great value in the study of normal and pathological conditions occurring in the stomach, duodenum, pancreas, liver and upper jejunum, as well as in the application of therapeutic meaures.

Acting on the suggestion of Meltzer, Lyon [4] of Philadelphia, was one of the first to demonstrate in a very practical way the great value this procedure possesses from the standpoint of diagnosis and therapeutics in many cases of disease of the biliary passages.

His articles dealing with his findings and results, which have appeared from time to time, are very illuminating and instructive, and have been the means of stimulating many others to adopt duodenal biliary drainage as a practical and efficient means of diagnosing and treating diseases of the biliary passages.

Judging from the results obtained by those using this method and from personal observations, we are justified in feeling encouraged to believe that at last a procedure has been perfected whereby the internist is enabled to discard the empirical and unsatisfactory use of so-called cholagogues, which in most instances act as hemolyzing agents and protoplasmic poisons, probably doing more harm than good, and to adopt the more rational method of a more direct therapy.

While the method employed in securing bile from the various segments of the biliary tract is quite simple, it is necessary to exercise caution so as to prevent, insofar as possible, bacterial contamination which is likely to take place from the mouth, throat and stomach.

TECHNIC

The technic employed is generally as follows:

The patient presents himself with a 10 to 12-hour fasting stomach, he thoroughly brushes his teeth, using some good tooth paste, after which his mouth is rinsed with a potassium permanganate solution—one to five hundred—then with distilled water.

The duodenal tube which has been kept in an antiseptic solution over night, is freshly boiled, then passed into the stomach while the patient is in the sitting posture. The gastric residue, if any, is then aspirated and saved for bacteriological, chemical and cytological examination and compared with findings obtained from the duodenum.

Then 250 c. c. of a 1 to 10,000 permanganate solution is introduced into the stomach and as much as possible of the fluid removed; the stomach is then rinsed with sterile water until the water returns clear. The patient is then placed on his right side and slowly swallows an additional 20 cm. of the tube, making a total of 75 to 80 cm. from the teeth. The last 20 cm. of the tube should be swallowed slowly, usually requiring not less than 15 to 20 minutes; if swallowed too rapidly the tube is likely to curl in the stomach, preventing the tip from passing through the pylorus, which results in considerable delay in securing the specimens.

We find the passage of the tube into the duodenum is greatly facilitated by gentle manipulation of the stomach under the fluoroscope, and where available we strongly commend its use.

The next procedure is to connect the tube with the first sterile aspirating bottle and the duodenal secretion is aspirated to determine whether the common duct sphincter is closed, then 50 to 75 c. c. of a 30 per cent sterile warm magnesium sulphate solution is douched into the duodenum. Usually this amount is sufficient except in those cases where the gall-bladder is atonic, when it may be necessary to repeat the douching with half to three-quarters of the original amount used.

Before the tube has been completely emptied of magnesium sulphate, it is con-

nected to the aspirating bottle and as much of the fluid recovered as possible. In a few minutes—in normal cases—the sphincter is relaxed and the magnesium sulphate returns tinged with bile which becomes deeper until pure bile is alone recovered. Another bottle marked A is then attached, into which the lemon yellow bile from the common duct flows, until the bile becomes more viscid with a decided change to a golden yellow, or to a condition indicating pathology. At this moment a bottle marked B is introduced into which the darker colored or more viscid fluid continues to flow until there is another decided change in color, usually to a light yellow, and more limpid fluid which indicates freshly secreted bile. At this time a third bottle marked C is introduced and the fluid collected until the drainage is completed.

Normally the quantity of bile collected in bottle A is from 5 to 15 c. c. and is of a light yellow color and slightly viscid; in bottle B 30 to 90 c. c. of a golden yellow or amber color and of a sirupy consistency; in bottle C the amount depends largely on the length of time the drainage is allowed to continue, and the bile is of a light lemon color and more watery than either of the other specimens.

The question naturally arises, How do we know that this darker colored and more viscid fluid comes from the gall-bladder? There are several reasons for arriving at this conclusion.

The amount of light yellow colored bile passed is consistent with the capacity of the chambers from which it comes. The same is true of the more deeply colored second portion. In several cases reported where the gall-bladder was found to be greatly distended, the second specimen obtained was greatly in excess of the capacity of the normal gall-bladder—sometimes several hundred c. c. Several cases are recorded where there was a palpable tumor in the gall-bladder region which disappeared when the Meltzer method of duodenal drainage was used. In some instances an abnormally dark and viscid bile has been observed, similar to that found to exist in post operative gall-bladder cases. This darker and more viscid bile is more concentrated, a condition likely to occur from stagnation. In cases of empyema of the gall-bladder, this second specimen has been found to be teeming with bacteria and pus cells.

In commenting on this procedure, Lyon states:

"In my opinion, the most hopeful feature of this method lies in its practibility of investigating, by clinical experimental observations, in the attempt to detect some of the physiologic alterations of function of the gall-bladder, liver and ducts; disorders of function, such as the hitherto undescribed entity of functional atony of the gall-bladder; spasm of the ducts and lowered velocity rates of liver secretion, which directly contribute to slowing up of the excretion of bile and bring about biliary stasis.

"For it is biliary stasis that all writers are in agreement as being the forerunner of gall-stones and of inflamed and infected gall-bladders and gall ducts.

"Any successful method of directly determining biliary stasis immediately opens up fields of investigating and explaining such common conditions as we loosely call biliousness, liver lethargy, hepatic torpor, with their resultant migraine and migrainoid attacks with biliary vomiting. * * * If we are to attack the great problem of gall-bladder disease, gall-stones, gall-bladder, and duct catarrhs and infections, and attack it at its source, we must give this lightly passed over symptom-grouping called "biliousness" our serious attention. Thus far our attitude toward the gall-bladder problem has been one of correction of full-blown stages of formed calculi and active catarrhal infection, and the means adopted have been largely surgical. * * * What we must do is to attack the problem with methods of prevention of gall-bladder disease with its sequelae, and this brings us back to attacking the biliary stasis which is at the root of the matter.

"Biliary stasis is followed by over-distention of gall-bladder and ducts, leading perhaps to what we may designate in the future as gall-bladder atony. This engenders a catarrhal state of the gall-bladder and duct mucosa, weakening resistance and permits of successful implantation of infecting micro-organisms filtered out from the portal blood or carried directly to the gall-bladder by the systemic blood or by the lymphatics, or ascending to the gall-bladder by way of the duodenum and common duct or passing through the serosa of the gall-bladder from direct contact with contaminated peritoneal coverings of neighborhood viscera. Biliary stasis, with its concentrated bile and precipitation of its crystalline chemistry, plus catarrh, plus infection, means gall-stones. Therefore, it is biliary stasis that we must attack if we are to prevent gall-stones, catarrhs or infections."

VALUE

While duodenal biliary drainage so far has had only a limited application, the results are so gratifying that we believe it will be only a comparatively short time before it will be used as frequently in cases of suspected disease of the biliary passage as is the fractional test meal in cases of suspected gastric disturbances and with equally satisfactory results.

The value of the procedure is not confined to investigations pertaining to the biliary tracts, but is also of value in determining the presence or absence of the pancreatic ferments which information is of value in indicating the condition of the pancreatic function.

Relaxation of Oddi's sphincter by means of magnesium sulphate also permits the escape of pancreatic fluid into the duodenum

and its absence when bile is present would indicate pathology in the pancreas or its ducts.

In order to reduce the possibility of error to a minimum, the various fluids obtained should be placed in a cooling chamber or examined as soon as possible after they are secured, otherwise changes are liable to occur which increase the possibility of error in the findings.

The fluid obtained from the stomach should be cultured and titrated.

The fluids from bottles A, B and C should be studied carefully as to gross appearance, color, viscosity and turbidity, microscopically for cellular elements, bacteria, leucocytes, crystals, etc.; bacteriologically for number and character of bacteria present. Colony counts from each of the specimens will usually give a very good idea as to the location of the part of the biliary tract infected when infection is present.

Brown[5] of Miles City, Montana, has had considerable experience in the use of duodenal biliary drainage as a diagnostic aid and has given his conclusions as to the interpretation of aspirated gall-bladder bile as follows:

1. A markedly gall-bladder bile with increased viscosity, which on microscopic examination shows the fluid to be swarming with micro-organisms, the presence of mucus and an increase of cellular elements, is pathognomonic of acute cholecystitis. When the leucocytes show great increase and are of the polymorphonuclear variety, the infection is of the suppurative type, or empyema is present. Cultures usually show staphylococci, streptococci or colon typhoid bacilli, named in order of their frequency as we have found them. At operation we have found many of these cases to be acute exacerbations of chronic cholecystitis.

2. A clear gall-bladder bile, with increased viscosity and suspended flakes of mucus enmeshed with bacteria, a slight increase of leucocytes, from 6 to 15 in a low powered field, is highly suggestive of subacute or chronic cholecystitis. Positive cultures are usually obtained.

3. A clear, brilliant gall-bladder bile with normal or increased viscosity, and usually sterile cultures, may be found in many cases of chronic cholecystitis, especially the "stone" group or in normal gall-bladders.

4. When repeated attempts to obtain gall-bladder bile are unsuccessful but the clear lemon yellow bile is freely obtained, the presence of a cystic duct obstruction is highly probable. We have found this seven times at operation.

5. When repeated attempts to obtain any bile are unsuccessful, the condition is pathognomonic of common duct obstruction.

The presence of bacillus subtilis, streptococcus, salivarius, and micrococcus catarrhalis or other mouth saprophytes may be regarded as contaminatious in the duodenal cultures. When colon bacilli, hemolytic streptococci and staphylococcus aureus are present they may be considered as etiological factors and as probably present in the gall-bladder or common duct or both. Colon bacilli are probably the most persistent bacteria found in the common duct.

Whipple[6] states that in about 50 per cent of his cases, one or more varieties of bacteria found in the preoperative duodenal bile were present in the gall-bladder bile or gall-bladder tissue.

With reference to the presence or absence of pancreatic ferments, he makes the following statement:

"Complete absence of pancreatic ferments in alkaline duodenal fluid containing bile is fairly definite proof of carcinoma of the pancreas.

"If lipase is deficient, this finding should be taken seriously only if the stools how high total fat content.

"Deficient pancreatic ferments may indicate chronic pancreatitis or advanced pancreatic lymphangitis in a case giving a history of definite gall-stone or cholecystitis history."

One of the greatest difficulties encountered in connection with transduodenal biliary drainage is the proper interpretation of our findings, in the specimens of bile secured from the various segments of the biliary tract, with respect to their bacteriological content. The chances for contamination are so great and the anatomical relationship such that it is almost impossible to secure these specimens under strictly aseptic conditions. We can, however, greatly minimize the chances of contamination by the methods already suggested and in addition by investigation, study carefully the normal bacteriology of the parts from which bacterial contamination is likely to occur, chief of which is the duodenum.

A considerable amount of work along this line has already been done, the results of which are of great assistance in the study of specimens obtained by the Meltzer method.

Escherich [7] in 1896 found that the upper intestine in fasting children was practically sterile. Later these results were confirmed by Cushing and Livingood[8] who made observations on animals at the time of operation.

More recently MacNeal and Chase[9] using the duodenal tube, made a study of the duodenal contents of 24 fasting adults. They found the normal duodenal fluid practically free from viable micro-organisms. The few cultures present were generally those of gram-positive cocci.

In cases where there was gastrointestinal disturbances, the number of viable micro-organisms were greatly increased, consisting of several varieties—bacilli, cocci, yeast and branching thread forms.

In the one case of typhoid fever examined, bacillus typhosus was isolated from the duodenal fluid, and it was suggested that this method might prove valuable in the

early diagnosis of this disease or detection of typhoid carriers.

We have been employing duodenal drainage and lavage for diagnostic and therapeutic purposes for nearly a year, the results becoming more and more satisfactory as our technic has improved, and our findings are quite in accord with those obtained by others who are employing the method.

In several cases our diagnosis has been confirmed at operation. In others, where infected bile was discovered and the patients complained of indigestion and biliousness extending over a period of months or years, the bile became sterile and the symptoms complained of disappeared after the employment of duodenal lavage.

Cases of catarrhal jaundice are usually relieved by this method of treatment in about half the time required by the usual methods employed.

We have met a number of cases in which the pancreatic ferments were absent, which condition we believe justified a diagnosis of carcinoma of the pancreas—in one of these the diagnosis was confirmed at operation.

We have a case under observation at the present time in which on three different occasions flagellate protozoa were found in the bile secured by the Meltzer method. These we have classified as Giardia (lamblia) intestinalis which have recently been described as the Causative organisms of "trench diarrhea."[10]

Treatment of this case by means of transduodenal lavage is giving satisfactory results.

In Japanese Liver—Fluke Disease (Asiatic Opisthorchiasis,) a disease in which the parasite (opisthorchiasis sinensis) may be found in the gall ducts, gall-bladder and in the pancreatic duct, duodenal biliary drainage is a method by means of which we are able to discover the ova of the parasite early in the course of the disease.

We are quite in accord with the statement of Smithies,[11] "that by this method, one is able to recognize disease of the gall-tract earlier than by any other clinical procedure."

The early recognition of these cases enables us to employ a rational course of treatment, including biliary drainage and lavage which will, in the majority of cases, relieve the stagnation and clear up the infection, thereby preventing the gross structional changes which are inevitable when biliary stasis exists for a considerable length of time.

While duodenal biliary drainage and lavage have already been proven to be of great diagnostic and therapeutic value, we would not wish to be understood as advocating it as a substitute for surgery, for there are many cases in which as a result of biliary stasis and infection such gross pathological changes have taken place that nothing short of surgery offers an opportunity for relief.

We are of the opinion, however, that with the general adoption of this method of treatment, the necessity for surgical interference will be greatly lessened.

James[12] in a recent article dealing with surgery of the biliary tract, makes the following statement:

> "The treatment in every case of gall-duct disease, whether it is in the beginning or final stages, is surgical. Every case of gall-duct disease is a surgical case.
>
> Diseases of the biliary passages are essentially surgical and not medical, and the most common cause of failure to cure or relieve your patient is late operation. * * * Let us establish the fact that cholecystic diseases are surgical first, last and always. * * *

Fortunately (for the patient) such radical views with reference to the treatment of biliary tract disease is held by comparatively few surgeons, and we feel quite safe in predicting that within a short time the use of the Meltzer method will convince these that primarily biliary tract diseases are essentially medical, and as such should be treated by the internist.

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DISCUSSION

THE CHAIRMAN: Dr. Stewart's paper is open for discussion. The Chair would like to call on Dr. Karsner of Chicago. He has had a lot of experience in this work. He is associated with Dr. Smithies, one of our Michigan men. Dr. Karsner.

DR. HOWARD T. KARSNER, Chicago: This paper has interested me a great deal. Dr. Stewart, I think, has presented it in a very able manner. He has covered in a way practically most of the points which we have had impressed upon us for about a year and a half.

We have made something over a thousand drainages. The six hundred cases we have now tabulated will be reported or were reported. I think there were three or four papers. I think that report will come before the A. M. A. next month.

We have found difficulties the same as Dr. Stewart. When we started, we thought we knew something about the bile and biliary functions and so on. But the more our experience with protein, the more experience we have and the more cases we have drained, the less we think we

actually know about it, and the more there seems to be a widening up before us of things still to be found out.

We have come to several conclusions. One conclusion that probably is foremost is probably that the gall-bladder causes as much chronic trouble in the abdomen as the appendix itself, possibly more. In other words, there are more chronic gall-bladders being carried around by individuals who are suffering more or less from symptoms which are referable to gall-bladder disease than there are those suffering from appendicitis, acute or chronic, and I might say also more than from ulcer of the stomach.

The diagnosis of gall-bladder disease is, I think —as is carcinoma—a microscopical diagnosis. In other words, the surgeon operating on a gall-bladder finds that he is able to compress the gall-bladder and empty the bile into the duodenum. The wall feels all right. He feels no stone in the gall-bladder and so there is nothing wrong with the gall-bladder. He looks for his trouble elsewhere, and the gall-bladder is not removed and the bile is not examined.

We are firmly convinced that from the specimens which we have obtained from this method of lavage of the duodenum, or of emptying the gall-bladder, diseases in the gall-bladder start exactly like carcinoma does in the stomach. In its early stages it is a microscopical diagnosis. It cannot be made by feeling of the gall-bladder by the manipulations in opening the abdomen no matter how expert the surgton's fingers may be. There is a time in gastric ulcer when the feeling of the ulcer cannot be differentiated from the beginning of a carcinoma. So also in gall-bladder disease, a surgeon or any one else cannot tell that is a diseased gall-bladder simply by pressing it. We can press on the gall-bladder and find there is no obstruction of the common duct and give the opinion it is a normal gall-bladder—how he guesses that is a diseased gall-bladder and can empty itself is more than we can exactly see. A normal, healthy gall-bladder under normal food stimulation may be able to empty itself. One that is diseased in any way may not.

Regarding the finding in the contents of the gall-bladder we have also found all of the germs or different organisms which Dr. Stewart has mentioned. We have had typhoid in one or two cases. We have found the protozoa in several cases now; and in those cases it is almost impossible to see how the parasites of that class can be thoroughly eliminated.

This is going to open up the question of elimination of intestinal parasites. When some of them find their way well up into the bowel and into the gall-bladder, the surgeon certainly can be helped if we can state, previous to the operation, whether the infection is limited to the common duct and to the gall-bladder or whether it involves the hepatic ducts and the hepatic radicles. If infection has proceeded to such a point that the hepatic radicles are affected, which we know to be true in a great many cases, surgery by the simple extirpation of the gall-bladder cannot accomplish a cure in those cases.

Another large field which is opening up along this line is in cases that come back to the internist after the surgeon has performed everything that he knows how to do. He has extirpated the gall-bladder. He has drained the gall-bladder. He has done everything that modern surgery can do, and still the relief from symptoms is six months, one year, a year and a half, two years—in a large percent of those cases. You all have them coming back to you. There is not a physician who practices any length of time in general practice but what does see a lot of these cases.

We have had considerable experience. We call it considerable experience. We are reporting on 14 cases which have been operated on by some of the best men in the country. We have cases that have had surgery performed by Dr. Ochsner and surgery performed at the Mayo clinic, and surgery performed by various other men. One a famous New York surgeon. And still the patient is having trouble. Those are the class of cases in which therapeutical gall-bladder drainage offers the only relief from symptoms and the only promise of a cure. As yet, it is only a promise. But the reason of course, we fully believe, is because the infection at the time had proceeded well beyond the gall-bladder and the common duct—I mean into the substance, sometimes ever into the substance of the liver itself. Now, gall-bladder drainage, as Dr. Stewart has emphasized, is not a cure-all. But there are lots of cases suffering from dyspepsia who do not think that the condition is such as to warrant surgery.

They do not wish to be pushed into surgery where this offers at least a relief, sometimes a cure. Therapeutically, I think the results so far have been fine. They have been at least equal to that of any other medical treatment in practically any other ailment. So there is a great field in that line.

The failure to secure gall-baldder bile on first drainage is in our experience probably about 10 per cent of the cases. Repetition reduces that to 5; and now on a third attempt we have reduced that to about 3 per cent, as the cases come in to us, or where we are not able to secure gall-bladder bile at all. That may be due to a variety of causes, a great many of which are truly surgical, not medical at all. Stones in the gall-bladder and so on may cause this.

I will say this: We have had a number of these cases in which we are unable to secure gall-bladder bile in which we have made a diagnosis of intermittent stone obstruction or of adhesions and different conditions of that kind. We have had a few of those come to operation. We have been careful to make our pre-operative diagnosis. So far our average has been 100 per cent. It won't be as our experience goes on. The cases so far have been few. They do not exceed 10. We have so far been able, by this method, to diagnose the condition pre-operative. I thank you.

THE CHAIRMAN: Any further discussion?

DR. M. S. KNAPP, Flint: I would like to ask Dr. Stewart if he has had ony experience in giving atropin beforehand. In a good many cases quite a little time is consumed with the tube passing through the pyloric valve. I have found in cases not suffering from hypertension that administration of 1-150 of atropin when you start to pass the tube will generally permit the tube to pass through inside of an hour. Of course, as the doctor said, it is necessary that the last part of the tube should be swallowed slowly. One other thing, the length of time of treatment is very materially shortened by the use of an outogenous vaccine.

THE CHAIRMAN: If there is no further discussion we will call on Dr. Stewart to close.

DR. CHARLES STEWART, Battle Creek, (closing): We have occasionally used atropin apparently with good results, however, when the fluoroscope is used gentle manipulation of the stomach greatly facilitates the passage of the tube so we rarely find it necessary to use atropin. There are cases where the presence of the tube in the region of the pylorus produces a pylorospasm in such atropin is of value in hastening its passage.

PROBLEMS IN THE CARE OF INDUSTRIAL INJURIES OF THE EYE

HOWELL L. BEGLE, M. D.
DETROIT, MICH.

I shall discuss in my paper some of the common industrial injuries of the eye, problems which they present to the ophthalmolo-

gist, and principles and methods of treatment.

FOREIGN BODIES IN THE CORNEA

You will agree with me that this minor injury of the eye is worthy of consideration for three reasons: first, it occurs with great frequency; second, it is the cause of much discomfort to the patient, and third, it is occasionally followed by infection, which may result in more or less visual impairment or even in loss of the globe. Each of these facts relative to this injury will be discussed at greater length.

Foreign body in the cornea is the most frequent industrial injury of the eye coming to the ophthalmologist for treatment. I have recently made a count of the last hundred cases of eye injury coming to the Michigan Mutual Hospital in Detroit for medical care and have found:

Foreign bodies in the cornea	75
Traumatic conjunctivitis	10
Abrasion of the cornea	3
Foreign bodies in the conjunctiva	2
Abrasion of the eyelid	1
Contused wound of the eyelids	2
Incised wound of the cornea	1
Superficial burn of the eyelids	2
Superficial burn of the conjunctiva	3
Superficial burn of the cornea	1

There was no major injury among the hundred cases; 75% were foreign bodies in the cornea. Had I taken a larger number of cases I am sure, from previous enumerations that I have made, that the result would not be very different. Undoubtedly as the result of guards placed on grinding wheels and the use of goggles by employes, this type of injury has been markedly reduced, in certain plants, at least, that have been aggressive in safety movements, but it is still far too frequent and in the aggregate accounts for a great many lost labor hours.

In order to cut down the loss of time from this injury, it would be advantageous if foreign bodies could be promptly removed from the cornea in a first-aid room of the plant where the injury occurs. A moistened cotton swab is often sufficient to remove the metallic fragment cleanly before the tissue has become rust-stained. In some shops this is done with good results. Where the foreign body is deeply imbedded, the tissue rust-stained and the eye irritable most shop physicians and general practitioners find these cases difficult to handle. If minor injuries of the eye are to be treated at the plant, I believe it good policy on the part of the employer to have his first-aid department in close touch with a competent eye specialist, and rather than putting hindrances in the way of the injured employe visiting the latter, this should be facilitated.

It is not necessary to say that foreign bodies in the cornea, including the rust-stained tissue, should be removed with clean eye spuds and with as little traumatism to the cornea as possible. I prefer to sit in front of my patient, using focal illumination, a Hardy and Co. binocular loup and a sharp pointed spud almost exclusively. That the employe may return to his work and loose as little time as possible, I do not in the majority of cases cover the injured eye with a pad and I do not insist on his returning for treatment until the corneal abrasion has entirely healed. I feel that I must defend this statement of my proceedure for when I first began caring for industrial eye injuries I felt strongly as a result of training that following the removal of a foreign body from the cornea the eye should be covered and the patient should be kept under my personal observation until healing was complete. By my placing a pad on the eye the latter was kept at rest and the lid prevented from rubbing over the wound, while if the patient returned until the wound had closed over, speedy attention could be given in case infection occurred.

The change in my method has come about in the following manner. I found that many employes object to wearing a pad, others removed it as soon as they were out on the street, some stated that they had more pain when wearing the pad, some could not wear a pad because the other eye was defective and occasionally I could not pad an eye because there had been a foreign body in each eye. Again after removal of a foreign body few employes came back as directed unless the eye was giving them trouble. This state of affairs was accentuated during the war when production was speeded up and employes were anxious to lose as little time as possible. I therefore began leaving the pad off as much as possible and I have not been able to see that it has made any difference. I have had but one case of pneumococcic ulcer occuring after I had removed a foreign body from the cornea. This was several years ago and could not be attributed to the patient not wearing a pad. Another reason why I am loath to put a pad over an eye with a minor injury is that a man is seriously handicapped in getting about the streets of Detroit, with its intense automobile traffic, when he has been suddenly blinded in one eye, which is the effect of the pad.

I have a certain safeguard, however, at the Michigan Mutual Hospital, in allowing these patients to go before healing is com-

plete, and this is an efficient follow-up system whereby patients who do not return to work are visited by a social service nurse or at least their whereabouts ascertained by communication with their employer.

It is surprising of how much pain employes with foreign bodies in the cornea often complain. They say that they have not slept all night, that they have walked the floor the entire night or that they have never before suffered so severely. Undoubtedly the location of the foreign body, its angular character, injury to nerve filaments and temperament are factors in determining the amount of suffering.

After the removal of a foreign body in such cases, I frequently give the patient a solution of boric acid containing a few drops of 4% cocaine solution that he may use, if necessary, to prevent another sleepless night. Cold applications are also advised. Moreover where the patient has suffered much pain, where considerable traumatism has resulted in removing the foreign body and where the eye is irritable, I do use a pad, for I believe by placing the eye at rest it does tend to relieve pain. I think, however, we are often careless in our method of padding an eye. The pad too often does not accurately fit the depression of the eye. and is sometimes too thin, sometimes too thick. The adhesive tape is too long and adheres to the hair, or the pad is too small and the tape adheres to the eyebrow, in both instances making removal unpleasant to the patient. The skin may become abraded by the tape. There is danger of erisipelis in such cases. Again the pad is left on too long. It then often becomes so loose that it no longer holds the eyelids closed and the secretions on the pad not only smear the skin, but may be brought in contact with the cornea.

Where I use a pad to cover an eye I instruct the patient to remove it before going to bed. I frequently give him an envelop containing a couple of extra pads and a small package of boric acid powder, the latter to be used for irrigations. Where a pad is to be worn for some time a bandage similar to the "Snug-fit" cover is certainly better than adhesive tape.

In a recent resume by Elschnig relating the experience of his clinic in making preoperative cultures from the conjunctiva, he states that very frequently they find pathogenic bacteria in the cul de sac. Certainly, however, virulent pathogenic bacteria can not often be present in the conjunctival sac of employes or we would have infection more often than we do, after minor injuries of the cornea.

To prevent infection after the removal of a foreign body or to arrest the progress of an ulcer if it has developed, it is of the greatest importance that patients after the removal of a foreign body return to the physician if the eye continues to give them trouble. In this respect my method is to warn in a few words each patient of the danger of inflammation or infection and to try to handle his case with skill and interest so that I gain his confidence that he will return to me if the eye does not go right.

One should always be on the watch for patients with conditions present that fa- for infection. I have never met with ulcer that has developed from a tear sac infection among my industrial cases, but of course dacryocystitis is a very serious coincidence in minor injuries of the cornea. I am wary in the case of individuals with chronic conjunctivitis or blepharitis, facial acne, pyrrhoea, ozaena, or who impress me as being habitually dirty. Such patients should be kept under observation. Most cases of infection, following the removal of a foreign body from the cornea, that I have seen have been in employes who, because they have had no confidence in the person who first attended them, or who through some error were discouraged from visiting a competent ophthalmologist, have remained at home and neglected or nursed the eye with home remedies, and when at last, because of fast failing vision, they consulted an eye specialist a large serpent ulcer had developed.

I have met with the following types of infection following foreign bodies in the cornea.

1. An infiltrated area forms immediately about the site of the foreign body, which sloughs, bringing away any rust stain or debris that may be left after partial removal. The ulcer does not show much tendency to enlarge. Healing is delayed for from 10 days to two weeks and a pin-head sized scar results. Treatment—Eyepad, antiseptic irrigations, cauterization if prompt sloughing does not occur.

2. An area of infiltration forms about the site of the foreign body and extends some distance into the surrounding cornea, appearing like a halo about the primary wound. Unceration is not marked. If the site of the foreign body is cauterized with phenol or trichloracetic acid and the eye covered, the area of infiltration recedes and only a small scar at the point of the original wound persists.

3. A round shallow ulcer which tends to increase equally in all directions develops about the wound. The edges are usually not undermined. There is no hypopyon. Diplobacilli are often found in the smears. Cauterization with phenol or trichloracetic acid followed by irrigations, with a solution of zinc sulphate leads to healing in two or three weeks, a thin scar resulting.

4. Typical serpent ulcer, due to the pneumococcus or streptococcus.

I have had some success in treating small serpent ulcers with optochin or by cauterization with phenol or trichloracetic acid, but in the case of large ulcers where the pupillary area of the cornea is already partly covered, I have learned through bitter experience to put my trust in nothing but the actual cautery, and to cauterize as deeply as is required, both the margins and floor of the ulcer.

BURNS OF THE EYELIDS AND EYEBALL

Burns of the eyelids may be classed as first, second or third degree burns. Inasmuch as burns of the eyeball do not as a rule show blisters, which is the characteristic point of second degree burns, I prefer to use the terms in my records superficial and deep. The most common causes of the burns that I have met with have been acids, alkalis, lime, ammonia, hot metal chips, and molten iron, aluminum, babbit metal and lead.

Chemical burns have usually been superficial. In industry many of the chemicals used are dilute. Again in most plants running water is quite available and the chemicals can be readily washed out, so that deep burns do not result. Babbit metal burns of the cornea have been usually superficial. I have seen few lime burns in Detroit.

The most severe burns that I have seen have resulted from hot iron, lead, or aluminum. They are most unfortunate for the patient. Often there is great destruction of tissue with resultant deformity. The period of healing is long and the eye is often painful. Secondary infection may complicate the burn, pneumococcic ulcer, for instance, and then, its nutrition damaged by the burn, the cornea may break down rapidly.

At the first examination one is inclined to under-estimate the damage done. For instance, after a severe burn with molten iron one will perhaps note that the conjunctiva is whitened around the cornea. A small area of the cornea has a ground glass appearance. The undersurface of the upper lid shows possibly a deeply pitted area where a piece of hot metal has remained until cool. In a week or two the eye looks much worse. The sclera around the cornea is then covered with red granulating tissue with profuse purulent discharge; a large raw surface appears on the cornea. As time goes on the granulating tissue grows over onto the cornea. The corneo-scleral margin in much of its circumference is obliterated. The upper lid unites with the eyeball. In the end much of the upper conjunctival sac is obliterated, the eyeball limited in its movements, the cornea more or less covered with a vascularized pterygium-like scar.

A year ago I had a most unfortunate case from a burn with molten aluminum. The sclera of the left eye was whitened, and the entire cornea had a ground glass appearance. The cornea of this eye sloughed away entirely within 36 hours. The other eye did not appear badly burned, there was a deep pitting of the sclera adjoining one edge of the cornea. The cornea itself was fairly clear. A deep infiltration of the cornea occurred within 48 hours adjacent to the scleral burn. This ulcerated and in spite of cauterization extended over most of the cornea. Useful vision was lost. In my opinion the nutrition of the cornea was interfered with, in this case, by the burn of the sclera, the loop of blood vessels around the cornea being damaged. Secondary infection with ulceration of the weakened cornea followed.

Dr. Denig suggests that where the conjunctiva is burned around the cornea, mucous grafts from the lip should be placed over the burned area after removing the necrotic conjunctiva. This, he believes, if done early will prevent secondary infiltration of the cornea. He attributes the infiltration to harmful chemical products of the burned conjunctiva.

I am afraid I do not fully comprehend his explanation, but I am unwilling to discard his suggestion nevertheless. I think we usually wait too long before grafting, following burns.

I have used a thin lead plate dipped in paraffin to maintain grafts in the conjunctival sac and like it for this purpose.

PERFORATING WOUNDS OF THE EYEBALL

The results that we obtain from perforating injuries depend in no small measure on the kind of first-aid treatment that has been given the patient before he reached us. Of course I refer to those perforating injuries where the injury itself has not been so severe as to preclude all chances of saving some vision in the eye.

A clean pad should be placed over the in-

jured eye and the patient brought as carefully and promptly as possible to the eye specialist. An eye with a perforating injury should not even be examined by anyone but an experienced ophthalmologist. The circumstances of the accident and the appearance of the patient and of the injured eye should be sufficient, without examination to warrant belief that a serious injury has occurred. Unskilled fingers can easily lead to further loss of vitreous and infection.

I like the conjunctival flap method of covering extensive or gaping wounds of the cornea. A flap of conjunctiva taken in anyone of several ways and slid over the wound results invariably in sealing the wound and even large irregular wounds heal smoothly behind the flap. Too much, of course, must not be expected. Large wounds of the cornea, even if not infected, are usually associated with marked loss of vitreous and severe tissue damage with extensive hemorrhage into the eye. While the corneal wound may heal beautifully the end result is only too often an atrophic eye.

TRAUMATIC CATARACT

Traumatic cataract presents problems of great interest. As a complication of perforating wounds, even if the other features of the injury are favorable, it means serious loss of the visual function of the eye at least, and occasionally the loss of all useful vision in the eye. I take care of employes with injured eyes for an employer who has had to pay for the loss of three injured eyes, and in each instance traumatic cataract was a prominent feature. Now, whenever I see what appears to be a serious eye injury from this plant, the first question I am asked is whether the employe has a cataract or not and he sighs in relief if I can answer in the negative.

It is difficult to know what to do in the case of patients with partial cataracts. This condition not infrequently results from perforating injuries with lateral or posterior wounds of the lens, from severe contusions, or from small wounds of the anterior capsule that have closed or been sealed by the iris. In time the cataract may become total, it may remain stationary or it may decrease. As a result of the opacity central vision may be markedly reduced while portions of the peripheral field remain fairly clear. As far as the cataract is concerned the cosmetic appearance of the eye is good. It has been my practice not to operate for the removal of the lens in these cases. I have at present under my care a patient who had a piece of brass in the anterior chamber slightly entangled in the iris. I was obliged to remove the fragment of metal by including it in the excised tissue removed by an iridectomy. A partial cataract now exists which may have been caused by the impact of the metal against the lens capsule or through abrasion of the capsule by the fragment as it was being removed. His vision is—counts fingers at ten feet. For two months he has been getting radium treatments without appreciable change. We hope to continue the treatments two months longer, that we may come to some definite conclusion as to the prospects of betterment in cases of partial cataract through the use of radium.

Cataractous lens matter protruding through a lacerating wound of the lens capsule into the anterior chamber may cause severe pain by pressure against the iris or through causing increased intraocular pressure. I have seldom observed the latter. But in numerous instances I have felt that the swelling lens matter was favoring inflammation. If the lens matter is removed while the eye is still in an acute condition, I believe that it is best to use a general anaesthetic, for loss of vitreous frequently occurs in removing the lens matter due to the fact that the posterior capsule of the lens has been injured as well as the anterior or because the zonnula has been damaged.

Despite considerable pain, inflammatory symptoms, and prolonged healing, I am of the opinion that it is well if one can wait till the eye is quiet and white before one operates for the removal of the remaining lens matter. So much of the lens matter may be absorbed that so simple an operation finally as discission may be sufficient to restore central vision.

Is it to the advantage of an employe with a unilateral cataract to have it removed? I am of the opinion that the advantages outweigh the disadvantages. I believe that today with immense automobile traffic on our streets, and with the overhead cranes and other ponderous machinery used in plants for facilitating production, the increased visual field resulting from the extraction of unilateral cataract may be estimated as of more worth than formerly.

What is the percentage of visual loss in an aphakic eye? It has been my practice to estimate the loss at from 60% upward, and to advise that a payment to the injured employe of from 60% upward of the amount fixed for the loss of an eye is a fair one.

Sixty percent is the minimum. The fol-

lowing conditions are to be taken into account in determining the increment to be made to this percentage. The age of the patient, the visual acuity obtained after operation, the cosmetic result, the presence or absence of corneal scars or anterior synnechiae, whether squint exists or not following the operation, the amount of corneal astigmatism, etc., I think my average estimate has been from 75 to 80 per cent.

Settlements on this basis have been made in the past and I am informed that it is still possible to make them in his manner.

SYMPATHETIC OPHTHALMIA

The numerous theories which have been advanced from time to time to explain this disease still remain theories. While through interesting scientific investigations many facts have been brought to knowledge in favor of this or that theory, no one of them has been established as the true explanation of sympathetic ophthalmia.

Some war literature seems to indicate that sympathetic ophthalmia was surprisingly infrequent as the result of wounds in the late war. Such an impression should not lead us to minimize the danger of this disease as a result of eye injuries. In a recent statement Elschnig attributes half of the blindness arising from industrial eye injuries to sympathetic ophthalmia.

The more conservative we are in allowing eyes with perforating injuries, that are infected, to be retained, the more sympathetic inflammation we shall see. It is difficult to draw up and advise a certain line of conduct in the method of handling eye injuries so as to prevent this unfortunate termination. Many exceptional or unusual cases reported in the literature cause a blurring of the picture that we have in mind of this disease, of the pathological changes that occur, the time of its occurrance in relation to the date of accident, of the frequency with which it may occur after enuleation or evisceration of the sympathogenic eye.

I shall state some of my own impressions and practices:

The usual type of inflammation that tends to favor sympathetic inflammation in the fellow eye is a plastic iridocyclitis, with precipitates on the back of the cornea, a muddy iris, narrow irregular pupil, plastic exudate in the pupil and with fine opacities in the vitreous. Vitreous abscess, a condition often following an infected foreign body lodging in the vitreous, and panophthalmitis are not apt to cause sympathetic inflammation. Operations, especially on the lens, on eyes that have been subjected to uveitis frequently set up a sympathetic inflammation. A foreign body that lodges in the eye, if it is not accompanied by iridocyclitis, is not likely to produce sympathetic ophthalmia.

An eye which has developed iridocyclitis after a perforating injury should be removed just as soon as it appears highly probable that there will be no useful vision. One should not trust in a two weeks safety period. For such an eye enucleation is the safest procedure. If after enucleation sympathetic ophthalmia does not develop within six weeks one may feel fairly certain that it will not develop.

Eyes developing vitreous abscess or panophthalmitis with loss of useful vision should also be removed early. Evisceration is apparently as safe a precedure as enucleation in these cases. It leaves a better stump, especially if combined with fat implantation, than enucleation, though the healing time is longer than after the latter.

In treating perforating injuries focal sources of infection should be sought for and if found removed. Careful attention to focal infections in soldiers during the war has been given as one of the reasons why sympathetic ophthalmia was not of more frequent occurrence.

DISCUSSION

DR. CAMPBELL: It occurs to me with regard to the paper that it is always gratifying to find when one has pursued a certain course for a number of years, that his confreres finally agree with him on the subject. Even in such a simple thing as wearing a patch for a superficial injury. I believe that the prevention of infection is best conserved by the condition that will promote drainage from the conjunctival sac. Then there are certain bacterial flora which do not live well under the sun light. In putting a patch on that kind of an injury, it soon becomes soaked and filled with germs, and you have a poultice. It seems to me that superficial injuries are best handled by not putting any dressing at all on them.

The subject of infected ulcer of the cornea has been introduced and he has given us some good information on it. There is a method for the control of superficial keratitis, the Bierhof method of treating these infections. Putting a speculum in the eye the cup of the ulcer is filled up with a solution of iodine, one-fourth, iodide of potassium 50% and water 25%—that is Lugol's solution. This is allowed to remain in the cup made by the curetting of the ulcer until it dries out, which will be about five minutes.

Another thing with regard to the sepsis of the cornea is that in this situation nature's method of controlling the inflammation is by the natural processes of the body, that is by an increase of leucocytes in the body. It has been found there is a certain method by which we can cause these to increase rapidly, i. e., by the introduction of a foreign body. The only suggestion is the use of sterile milk. It has a wonderful influence on the leucocyte count. Before injection you will find eight to nine thousand white cells, and after injection it will go up to fourteen thousand. The philosophy of the thing is easily seen. In introducing a foreign body into the circulation it also draws out the infection. That is of value not only in traumatic infection but in post operative in-

fection as well. In cataract operation where there is sepsis the use of sterile milk hypodermically will be useful.

An interesting thing is that an aluminum burn is serious. They never do well but always do badly. The melting point is very high, and when the aluminum in a liquid state gets into the eye the temperature is very high and we get a greater effect than we do with a burn with iron.

The projecting lens may have the same effect as if a foreign body lies in the anterior chamber in contact with the structures of the eye. It is surprising what an improvement the removal of that lens matter will make. It is not necessary to remove it all. The result we are after is attained by removal of that portion of the lens matter which is irritating the eye. It is only necessary to make a small incision.

Sympathetic ophthalmia is always important and I have found a good deal of comfort by the study of the blood picture. Increase of the large mononeuclear cells is very significant of impending sympathetic ophthalmia. I have seen the cells run up 10 to 15 per cent, where the normal is four. The eye will be enucleated and then in a few days the count will be normal. I think that an important point as to the pending of sympathetic ophthalmia.

DR. HICKEY: I would like to say a word with regard to the X-ray being made as early as possible after the injury. If this is done in a few hours after the injury the outlines can be made out much more accurately than it can be done later.

DR. BEGLE, (Closing): I merely wish to thank Dr. Campbell for supplementing my paper.

TREATMENT OF SUB-ACUTE AND CHRONIC OTITIS MEDIA WITH THE USE OF THE X-RAY

ROBERT BEATTIE, M. D.
DETROIT MICH.

In looking over the literature of recent years on the treatment of acute and chronic otis media, I failed to find any reference to the use of the X-ray.

In the spring of 1920, following the epidemic of influenza, there developed a great many cases of acute otitis media. A great many of these ran the usual course and got well; some of them involved mastoid and operation was necessary. There were a number, however, that did not clear up. They did not have the typical mastoid symptoms, but seemed border-line cases.

It is my practice to have these cases X-rayed as an aid in diagnosis. To my surprise several of the cases cleared up entirely within two or three days. At first I thought it was merely a coincidence, but when so many cleared up I began to think there must be something of real value in the X-ray in these cases.

I decided to try it out on a number of children so afflicted in the Children's Dept. of Providence Hospital. Dr. Geo. Chene, Roentgenologist for the hospital, was consulted and he kindly consented to Ray these children.

Not knowing how much X-ray to use, and judging the results obtained from exposure sufficient to make a picture, we decided to continue with the same amount on a few cases.

Four were selected. The length of time these children's ears had been discharging ranged from four months to 13 months. Although these cases had had very good care, and various medications tried, nothing seemed to be of value in stopping the discharge and odor. After the first treatment the child whose ears had been discharging for four months had both ears cleared up entirely in less than one week. Two of the other three were decidedly improved, the discharge greatly lessened, the excoriations in the external auditory canal entirely gone and almost total absence of odor. These cases were given the same amount at intervals of once a week for three weeks, but they did not clear up entirely. This is probably due to the fact that they only had a 15 second exposure, while those who were rayed for aid in diagnosis all had four exposures of 15 seconds; four plates being made for comparison.

The report of these four cases is as follows:

Feb. 11, 1921. Irene, 2 years old, both ears involved. Duration of condition, 4 months. Originally had diphtheria. Two exposures were given one week apart. Fifteen second exposures. The condition entirely cleared up in both ears after the first treatment, but second treatment was given to make it more effective.

Jos. Goyt, age 1 year, 10 months. Right ear. Duration of condition, 13 months. Originally had diphtheria. Culture from ear showed colon and staphylococcus. Three treatments were given at intervals of one week. There was a marked lessening of the discharge and odor, and the excoriations in the external auditory canal had entirely disappeared. Fifteen second exposures were also given in this case.

Jos. Lupo, age 18 months. Right ear. Duration of condition, 1 year. Culture showed Step. and Staph. Three exposures given same as above case with practically same result as preceeding case.

Jos. Peolk, age 2 years. Right ear. Duration of condition 9 months. Culture sterile. One fifteen second exposure with indefinite results.

The last three cases left the hospital before further treatment could be given.

The first case is still in the hospital and under observation.

We decided to change our treatment, and we are now using:

Six and one-half inch gap. 10 in. skin target distance. Three milliampere. Three minute exposures. Three millimeter aluminum filter. 1 thickness sole leather.

This is Dr. Chene's technic.

What is the pathology of these ears, and what is the action of the X-ray on these pathological conditions?

It is not within the scope of this paper to go into detail regarding the etiology of these

diseases. Suffice it to say that the vast majority arise from within the nose and nasopharynx.

PATHOLOGICAL CONDITIONS

There is an inflammatory involvement of the eustachian tube, an invasion of micro-organisms, a thickened and swollen condition of the lining mucosa of the tympanic cavity and a purulent exudate ensues. Even after the spontaneous rupture of the drum, or incision of the same, these cases do not all clear up. Some resist the ordinary treatment and keep on discharging. The disease may involve the aiditus, mastoid antrim and mastoid cells. As the disease progresses, new connective tissue elements are added which eventually serves to establish the chronicity of the disease. The hyperemia gradually subsides, and excrescinces appear which usually become true granulations. These granulations may later be recognized as aural polypi. Again epithelium may extend through the perforation from the external auditory canal. This epidermis may become exfoliated and retained as foreign matter, thus promoting irritation and aggravating the otorrhea. This exfoliated epithelium with the pus is known clinically as Cholesteatoma. The odor is very offensive. This condition may go on to caries, necrosis, sclerosis, pressure atrophy, etc.

What is the action of the X-ray in these cases?

According to Roentgenologists:

"The X-rays possess no germicidal properties. The action is that of stimulation to the body or tissue cells sufficient to overcome the low grade virulence of the infecting micro-organism.

"The physical action in these cases resembles that of vaccines in raising the opsonic index."

I have mentioned my experiences to a number of my colleagues, and a few of them have tried the treatment on their cases. Some of them have kindly consented to have the results of this treatment reported in this paper.

Following are a few of my cases:

Case 1.—Mr. M. age 30 years. Bank clerk. Contracted cold in the head in Oct. 1920, which was soon followed by an acute otitis media. A free incision of drum was made at first visit. Culture showed staph. and pneumococcus. There was a profuse discharge, which despite good care, kept up for two and one-half months. He was having a slight rise of temperature with some tenderness over mastoid, and an X-ray was advised. The plate showed some involvement of mastoid cells as compared with the other mastoid. The discharge at this time was sufficient to make it necessary to change the cotton 8 to 10 times daily. The following day I informed him that the mastoid was involved, and that an operation was necessary. The patient said that he felt better and had to change the cotton only twice all day. I said, that on account of it stopping suddenly, I felt it was more necessary to do a mastoidectomy. But he was feeling so good. I decided to wait. The following day there was scarcely any discharge, and, within three days from the time of the X-ray, the ear had dried up entirely, and has remained so ever since.

Case 2.—Mr. H., an inspector. Contracted a cold in the head March 13, 1921. A few days later he developed an otitis media. The tympanum was incised and drainage established. Culture showed strep. and staph. This continued to discharge until April 26, 1921. At the end of this time, on examination, I found that the discharge was coming from the anterior superior portion of the drum. It was not profuse, but troublesome with some pain and tinnitus. An X-ray was given and the discharge and symptoms cleared up within three days.

Case 3.—Master L. N., age 10 years. Attending boarding school at Munro. On Jan. 20, 1921, developed cold with otitis media following. Spontaneous rupture of drum occurred and there was a very profuse discharge when I first saw him. Culture showed staph. and pneumococcus. The boy remained home for a week. He then returned to school and instructions were given for his care. He returned at each week-end, although he had good care the discharge was profuse. One treatment of X-ray was given and within a week the discharge had stopped. His ear had been discharging 5 weeks when X-ray was given.

Case 4.—Mrs. B., age 27 years. Referred to me by her family physician. Gave a history of chronic otitis media of 7 years duration. Examination showed large perforation high up in the drum with granular tissue protruding through. An X-ray treatment was given, and at the end of a week, she returned for another. At this ime, the granulation, that had been visible, had disappeared. The discharge was very slight, no pain and feeling comfortable. Altogether three treatments were given with marked improvement. This case is still under observation.

I have had 14 cases. Three of the first four had only 15 second exposures, and being boarding babies at Providence Hospital, were removed before further treatment could be given. These were not cured. Two of the 14 are still under treatment, and the remaining nine have all cleared up with from one to three treatments.

Dr. Dempster reports having treated 15 cases, the discharge of five having ceased after one treatment. One, a boy whose ear had discharged 10 years, responded completely to four treatments. The remaining cases were all markedly improved.

Dr. Dempster's technic is as follows:

The hair is protected by strips of lead rubber placed about the ear, and a cone of Rays is directed over the external auditory meatus.

Six-inch gap.

Four milliampere.

Five minute exposures.

Two millimeter aluminum filter.

One thickness of sole leather.

Drs. Mercer, Schurman, Waldeck and Woodworth have all used this treatment with practically the same results.

One of Dr. Woodworth's cases:

C. M.—Male, age 11, school. Tonsillectomy one year ago. No previous trouble with ears. Somewhat nervous, but otherwise a healthy, normal school boy.

History of present illness—Four weeks ago, con-

tracted what appeared an ordinary cold, pain developed in ear third day from onset of cold. Palliative measures by family doctor helped to relieve pain, and ear drum ruptured on second day of attack spontaneously. Profuse discharge, pains diminished and discharge practically ceased in about six days. Three days following, pain reappeared followed by discharge. No abatement of symptoms for almost four weeks when I saw the boy for the first time. Examination—External ear about normal, profuse purulent discharge from R. canal, no redness or tenderness over mastoid region, but complaints of sharp pains in the ear itself. Smear from canal showed strep. and pneumo. organisms, temp. 99.8. The canal was quite red but had no bulging, ear drum dark red and perforated. Tried the usual irrigations, etc., but failed to make much headway in diminishing the discharge. Had a plate made of the mastoid region three days later which showed some cloudiness of the cells. Plate made on Feb. 19, followed by some slight cessation of discharge. Feb. 24 had an X-ray treatment and in two days the ear canal was perfectly dry and has remained so up to date without any further disturbance.

CONCLUSIONS

While my experience with the X-ray treatment is limited to a few cases, I am thoroughly convinced that it is of decided value in the treatment of the sub-acute and early chronic types of otitis media.

In the chronic cases where there is a necrosis of bone, it is of doubtful value.

I am also of the opinion that the kind of infective micro-organism found makes very little difference.

DISCUSSION

DR. GEO. C. CHENE: There is a rational reason for the use of radiation in these cases as it has been demonstrated that radiation stimulates granulation and the lymphatic tissues and has an influence on bacterial infections and even stimulates the healthy regeneration of bone. Therefore, there is some reason for its use.

The technique should be restricted, I think, according to the individual case, using deeper therapy and a larger area where the tonsil and cervical glands are involved, which tends to prolong these infections. Where there is considerable granulation tissue, rays of less penetration and less filtration, I believe, are indicated. All the cases I have observed have shown marked improvement, and part improved which had existed for 12 years or more, although these have had periods of remission; and whether we may be going through a period of remission following our treatment will require a longer time to demonstrate. I am ultra conservative about the method, but I very much believe it is worth while.

DR. AMBERG: I congratulate the essayist on the success of his treatment in his cases. From December 1, 1916, we had under observation Mrs. C. D., 44 years old. The patient had had a discharging ear for about three weeks. On November 28 the heretofore scanty discharge became copious, about 1 ounce in three days. On December 2 I incised the drum membrane. The mastoid was tender on pressure over the antrum and then over the anterior portion and tip off and on until January 4, 1917. The drum membrane was practically normal January 16, 1917, but patient had a slight relapse January 20, 1917. Patient then recovered My records show seven hearing tests. A slight improvement in hearing could be demonstrated December 15, 1921, and a more marked one December 20. December 16 the culture showed yellow staphylococci; the blood count January 29, 1917, white cells 8,200; polymorph. 69%; small lymph 21% transitionals, 7%; large lympho. 2%; eosnophiles 1%.

Dr. Haas had the patient under observation on account of a profound anemia and thyroid symptoms. The decission between expectative and aggressive treatment was made difficult by the general condition of the patient and imposed upon us especially close attention and an increased responsibility. The clinical symptoms were controlled by eight diagnostic Roentgenograms made by Dr. Hickey, December 1, 14, 19, 1916, and January 3, 18, 31; Feb. 15, 21, 1917. The Roentgenpicture showed rather definite cloudiness December 14 and an improvement December 19.

I was rather reluctant to have the patient exposed so frequently to the X-ray, but I thought I had no other choice under the circumstances. At that time I expressed the opinion that I was under the impression that the rather frequent exposures to the X-rays might have been one of the factors which brought about a recovery.

I have tried repeatedly since that time to induce roentgenologists and laboratory workers to undertake experimental work on animals in order to test the efficiency of the Roentgenrays on middle ear suppurations. These tests must, no doubt, be made in order to place such a treatment on a sound basis and to avoid the pitfalls which may accompany indiscriminate use of such a possible remedy. The observations of Wittmaack and his views will, in my opinion be of great assistance if not of a decided sine qua non in this work.

Dr. Goosman, of Cincinnati, wrote me May 13, 1921: "It is an old observation that X-ray exposure of the mastoid for diagnostic purposes sometimes gives relief to the symptoms. This is due probably, to the well known effect that X-rays have on granulation tissue or any other rapidly multiplying cells. I am not prepared to say how much good the X-ray will do in otitis media, although I am using it in a conservative way experimentally."

I may add that at the present practically abandoned use of Bier's congestive hyperaemia—and the same may, under circumstances, also apply to vaccine therapy, may serve as a warning to be rather careful with the employment of remedial factors until their usefulness and freedom from danger, especially by masking the symptoms, has been fully demonstrated. Just as Dr. Varney had good results in old pyogenic eczema of the outer ear canal and with polyps of the nose in chronic infection of the same by the X-ray treatment. There may be a field of usefulness in some forms of middle ear suppurations by enabling the tissues to cope with the infection. Further observations and experiments may add the Roentgenrays to the otological armamentarium.

DR. BERNSTEIN, Detroit: I heard the excellent paper of Dr. Beattie the other day and mentioned an old case of chronic mastpoditis in a young man on whom I had done a rather successful, as I thought, mastoidotomy, and retained a discharging ear; and I had several X-rays taken to determine if there was a focus of infection still there. But it had no effect whatever. I think there is a field for this in some of the cases of acute otitis media accompanied by a profuse discharge, no rise of temperature or constitutional symptoms which seem to not yeld to the ordinary modes of treatment. In these cases the application of the X-ray may be of avail. I expect to make use of it in such cases.

DR. BEATTIE, (Closing discussion): I have nothing further to add, only to thank those who took part in the discussion.

SOLE PRINT IDENTIFICATION OF THE NEW BORN

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We recently instituted, in the Maternity Department of St. Mary's Hospital, the routine sole printing of all of the new born infants. The inquiries received and the interest shown by members of the profession as

well as the laity, led us to believe that a wider understanding of the method and the reasons for its adoption might not only be of interest, but might also lead to its introduction into other hospitals.

Every physician who includes obstetrics in his practice, has, when attempting to hospitalize such cases, been met with the fear on the part of the expectant mother, that the babies may be mixed in the nursery. In some instances the fear is not sufficiently compelling to evidence itself in more than an expression of the fear or question concerning it, but many times it is the cause, or the assigned cause, for refusal to accept hospital care.

It must be admitted that the fear is not entirely groundless; in fact, that such a mixing of babies has actually occurred. A former patient, on a visit from one of the southern cities where she is now a resident, informs us that at the time she left a case was pending in the courts, the complainant asserting that the baby brought to her, and the one she took home with her, was not, in fact, her own. Incidentally, during the progress of the trial the baby in question died. We have no present knowledge of the outcome of the case, yet one might easily venture a guess, that the decision was rendered against her. Such a contention would be almost impossible to prove. Were the decision adverse and had the baby lived, the mother would probably never have been able to rid herself of the belief that the child was not her own. In fact, her feeling toward it would have been very different from that expressed toward a child she knew was not her own but had voluntarily adopted.

We are careful of the patient's mental attitude toward the purely physical details of her condition, frequently reassuring her, realizing that pregnancy and labor have a psychological as well as a physical aspect. The routine we have established is intended to do away with one source of anxiety and worry, adding by that much to the patient's well-being.

The routine, briefly, is this; prints of the soles of the baby's feet and of the first three fingers of the mother's right hand are impressed upon a card, this being done before they are removed from the delivery room. The mother's finger prints are added to prove the baby's sole prints. If a case should ever come up for determination and the sole prints alone appeared, it would be necessary to prove the authenticity of the prints and the value of the system would have been nullified. Prints are made before removal of the patients from the delivery room for the same reason. Possibility of the babies being mixed begins only with the entrance of the baby into the nursery, consequently, the impressions are taken before that contingency might occur, and also before mother and babe have been separated.

The impressions are taken by the house doctor who is on service at the time, and not more than five minutes should be necessary for the entire operation. Once or twice a week we classify the prints and file them. A separate index is kept, including the mother's name, babe's name, and classification formula, should it become necessary to refer to any of the prints without a duplicate print to serve as a guide. Should the question of identity ever arise, sole impressions will be taken of the questioned infant and compared with those originally taken. If the two sets of impressions tally, the matter of identity is settled absolutely.

The apparatus used is the same as is used in taking finger prints; a glass slab on which to spread the ink by means of a composition roller and a little printers' ink. A small portion of the ink is thinly rolled out on the glass. Instead of applying the foot to the glass slab as is done in obtaining finger prints, we have found it better to apply the ink to the foot by means of the roller. The foot is then pressed lightly on the card held in place on a wooden block. But little experience is necessary to enable one to take satisfactory prints.

Several of the hospitals of the country, notably in the east, have introduced sole printing of new born infants, but so far as our knowledge goes, we are the first to carry the system to its logical end—the classification and filing of the impressions. The system of classification used is that devised by Wilder and Wentworth and described in their book, "Personal Identification."

The skin of the soles of the feet, the palms of the hands and of the palmar surface of the fingers differs from that in any other part of the body, being thrown into ridges, the so-called "friction ridges." These ridges by their turning and curving, form definite patterns in certain locations. The patterns being of a fixed number of general types makes classification of the impressions possible. In general, however, the ridges do not pursue a uniformly unbroken, parallel course. Here a line comes to an abrupt end, there a line bifurcates, here a line bifurcates, but the two limbs again join to enclose a little island of skin,

there occurs a short line, while between two parallel ridges in another portion appear ridge dots, representing a ridge that has never arrived at maturity. These latter characteristics are made use of in testing two impressions to determine whether or not they were taken from the same individual.

Finger prints are the most satisfactory to use, but it is almost impossible to obtain them from infants. The same applies to palm prints. In the case of the feet, however, the toes do not enter into the determination of a classification formula, so it makes no difference if the toes are blurred in the print, since the foot may be held steadily enough to obtain a good impression.

Identification by means of finger prints has received judicial sanction as constituting absolute identification. Although no legal precedents have been established in connection with sole prints, the same tests are used and the same rules apply, and it would be an entirely easy matter, should a case require it, to prove their infallibility equally with finger impressions. Nature constantly evidences a distaste for duplication. The wing mottling of two butterflies of the same species shows uniformity in some general characteristics, but minute examination discloses essential variations. However, leaving out of consideration this, which seems to be a natural law, it is possible to mathematically determine by the law of probabilities, that no two impressions of any of the friction ridge surfaces can possibly be identical unless they were taken from the same individual.

Variability, permanence, immutability, have been laid down as the essentials of a perfect system of identification. Friction ridge identification is the only system now known which perfectly fulfils all three requirements; variable because there is sufficient difference in a fixed number of type patterns to make classification possible; permanent since they are present from the time of their formation at some period of intra-uterine life until decomposition after death; and immutable since examination of impressions taken from the same person at different ages proves that there is no change in the slightest detail.

Our brief experience at St. Mary's Hospital has clearly demonstrated that to those who are most vitally interested—the women—the method does make a very definite and strong appeal. To the hospital it is not only a part of its up-to-the-minute equipment, but functions precisely as does indemnity insurance. The time required for its application is absolutely inconsiderable when compared to the service it might render should the occasion ever arise.

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ARTIFICIAL PNEUMOTHORAX IN ACUTE TUBERCULOUS PNEUMONIA, PULMONARY ABSCESS AND PULMONARY HEMORRHAGE*

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So much has been written in recent years to show the value of artificial pneumothorax not only as a paliative but as a curative measure in the treatment of chronic pulmonary tuberculosis that the mere narration of additional experience with such cases would not prove especially interesting, or profitable. Few cases, however, of the treatment of acute pneumonic phthisis by artificial pneumothorax are recorded in the literature and most of the reports I have seen were written during treatment or soon after its discontinuance. My own experience with 5 cases shows that a much longer period must elapse before judging of the final results of such treatment and I thought a brief narration of the cases might be of value.

Case 1. Mrs. H. D. W., age 25. In 1901 had some tuberculous glands removed from the neck. In 1911 expectorated less than a teaspoonful of blood but thought it came from her throat. Was in her usual health until the birth of her first baby, March 10, 1914, after which she did not regain strength and began to cough with chills, fever, pain in the right side, etc. April 11, had her first hemorrhage and from then until May 27, had 24 attacks of hemoptysis varying in quantity from ½ to 4 oz. Expectoration 2 ozs. a day. When I first saw her, May 27, she was very weak, had a pronounced anaemia, pulse from 130 to 150 and temperature reaching 103 each day. The upper lobe of her right lung was consolidated with suggestions of cavity; coarse and medium-sized rales were present in the lower lobe. The left lung seemed normal. I succeeded in injecting 1,000 c. c. of nitrogen into the pleural cavity after which there were no more hemorrhages. The patient improved gradually and steadily and by March, 1915 was in apparently good health. During the spring she developed a pleural effusion in spite of which she continued attending to her household duties. There was but little cough and expectoration, pulse and temperature were normal and she weighed 148 pounds. In the spring of 1917 it was apparent that active disease was invading the left lung after which she gradually declined until her death in February, 1918, four years after the beginning of her illness. About two

*Read before the American Climatological and Clinical Association at Lenox, Mass., June 3-4, 1921.

years of this time she was in splendid health and I exhibited her before the Grand Rapids Academy of Medicine as an illustration of an apparently arrested case of acute tuberculous pneumonia.

Case 2. Mrs. W., age 56 years. Always frail. Usual weight 100 pounds. Had a slight cough for several years but consulted no physician about it. Was in her usual health until August, 1914, when she was taken acutely ill with pain in her chest, fever, etc. A diagnosis of lobar pneumonia was made. The crisis did not come at the usual time and a little later tubercle bacilli were found in the sputum. She was then sent to a sanatorium where a diagnosis of acute tuberculous pneumonia or galloping consumption was made, and after several profuse hemorrhages she was sent home to die. I saw her early in October when she weighed 83½ pounds, pulse 130, temperature 99 to 103 daily. Expectoration 3 to 4 oz. a day. The upper lobe of the left lung was consolidated with signs of cavitation. Lower lobe contained scattered medium sized rales. The apex of the right lung also showed evidence of disease. The remainder of the lung seemed normal. Owing to the severe hemorrhages I instituted artificial pneumothorax at once and succeeded in getting a pretty complete collapse of the lung, as far as could be determined by physical signs. Her improvement was immediate and marked. There were no more hemorrhages, temperature and pulse gradually became normal. The sputum was reduced to ¼ oz. a day. By spring she weighed 97¼ pounds which was about as much as she had weighed in a good many years, and she was well enough to take a 10-mile automobile ride to town to have an X-ray picture taken which showed a complete collapse of her left lung. At the end of six months she developed a large pleural exudate which never disappeared. In spite of this she remained in fairly good health, looked after her household duties and did most of the nursing for her 14-year-old son, who had active tuberculosis for a year. In the fall of 1917 she had a severe bronchitis in the right lung, after which I discovered that the pleural exudate had become purulent. She gradually failed in health but was up and about as usual until her sudden death early one morning in April, 1918, 3½ years after the beginning of lung compression.

Case 3. L. W., age 20. Height 5 feet, 4 inches. Usual weight 115 pounds. Never strong, but no serious illness. Some cough for six years which was not considered of any significance. In usual health until October 10, 1915, when he was taken ill with what was called pneumonia in the left side. When I was called, two months later, a diagnosis of acute pneumonic phthisis was made and artificial pneumothorax instituted. A complete lung collapse was readily secured. His improvement was immediate and within three months he weighed 5 pounds more than ever before. At the end of 6 months he developed a large serous effusion. His heart and anterior mediastinum became markedly displaced to the right and several attempts were made to remove part of the fluid to allow the heart to return to its normal position. This was attended by so much dyspnea, with attacks of paroxysmal tachycardia, that it was decided to leave the fluid alone. In September, 1917, two years after the beginning of his illness I exhibited him before the Michigan Trudeau Society as an illustration of the beneficial results of artificial pneu mothorax in such cases. He continued in good general condition and did a little work for a couple of years. In September 1919, he went to Florida for the winter and soon after arriving there had an attack of influenza from which he did not fully recover. Several months later the fluid in his side was found to be purulent and was removed, after which he rapidly declined and died in September 1920, five years after the beginning of his illness.

Case 4.—B. S., age 20. Had been ill but six weeks when I first saw him in January 1917, during which time he had lost 20 pounds in weight. His maximum daily temperature was 102 to 103. Pulse rapid. Expectoration 5 to 6 ozs. a day. The physical signs showed consolidation of the upper lobe of the right lung. Tubercle bacilli and elastic tissue were found in the sputum, and acute tuberculous pneumonia was diagnosed. An X-ray picture, confirmed these findings. Lung compression was begun and a month later another X-ray picture showed an almost complete collapse of the lung. It also showed that the pneumonic consolidation was confined to the upper lobe, the different degrees of collapse in the upper and lower lobes being beautifully shown in the picture. At the end of a month his temperature was normal; pulse 75 to 90; sputum reduced to 2 oz. a day; appetite good and he had begun to gain in weight. At the end of 6 months he was in good general condition but had developed a large exudate preventing the introduction of any more gas, so I let him go home for a short visit. Two weeks later I was hurriedly called and found he had developed broncho-pneumonia in the left lung. He died 3 days later. An autopsy disclosed a most remarkable condition. The right pleural cavity was full of fluid and it seemed at first as if the lung had entirely disappeared. On removing the fluid the remains of the lung were found at the back of the cavity next the spine, contracted down into a hard cartilagenous mass smaller than my closed hand. I sent the specimen to Dr. Warthin who had never seen any thing like it before. On section it was seen to be honeycombed with cavities. The left lung showed acute bronchopneumonia.

Case 5. Mrs. K., 26 years old. Always had good general health; usual weight 140 to 145 pounds. When 16 years old had a few tuberculous glands removed from the right side of the neck and two years later several tuberculous glands from the right axillary region. She was then in perfect health until December 1919, when she developed a little cough. March 6, she became acutely ill with pain in the chest, chills, etc.; a physician was called who diagnosed lobar pneumonia. The crisis did not come at the end of the week; pain, fever, cough, expectoration, rapid loss of weight, etc., continued and when I first saw her, May 1, she had gone down to 103 pounds. Physical signs of consolidation in the upper lobe of the right lung were present; some moderately coarse rales in the lower lobe, the left lung seemed normal. Her general condition was exceedingly critical; pulse 140 to 150, temperature 103 to 104. Acute tuberculous pneumonia was diagnosed and artificial pneumothorax instituted. Her improvement was immediate and rapid. Pulse and temperature were normal at the end of 2 months. She soon began gaining in weight and at the end of 6 months weighed 145 pounds. She has done her own work a considerable part of the past winter and as far as looking and feeling goes is perfectly well. She still has a little cough and slight amount of expectoration. So far no fluid has developed in her side. An X-ray picture shows a complete collapse of the lung with the exception of a fold in the posterior part of the lower lobe which is adherent to the chest wall near the diaphraghm. She is receiving gas once a month. If I can keep control of her for

the next 2 or 3 years, I confidentially expect a permanent recovery.

(Note: Nov. 1st, patient is still in apparently perfect health and weighs 164 pounds).

Acute tuberculous pneumonia must be differentiated from acute tuberculous broncho pneumonia which is usually bilateral and therefore not suitable for artificial pneumothorax. My experience with these 5 cases is such that I believe every case of acute tuberculous pneumonia should be offered the benefit of artificial pneumothorax unless definite contra-indications exist, and the earlier treatment is begun, the greater are the prospects of recovery. The diagnosis is often impossible in the initial stages as the symptoms for the first few days resemble those of crupous pneumonia. Even during the stages of caseation there may be but little sputum and tubercle bacilli may not be found until softening and exudation into a bronchus has taken place. If tubercle bacilli are found in the sputum during the first week it does not prove the pneumonia to be tuberculous, as any patient with chronic tuberculosis may have crupous pneumonia; in fact such patients stand crupous pneumonia exceedingly well. One of my cases of ten years standing went through an attack of lobar pneumonia in the lower lobe of her good lung, last winter, with a crisis on the 7th day. Three days later the upper lobe became consolidated with a crisis and normal pulse, temperature and respiration on the 4th day. She was out of bed and little the worse for her illness three weeks later. If in a case of pneumonia involving one lobe or an entire lung the crisis does not come at the proper time, if the temperature becomes irregular, the pulse quicker, sputum more profuse and the patient rapidly loses flesh and strength, acute pneumonic phthisis must be thought of and lung collapse instituted as soon as diagnosed as such. Without it death within a period of from one to three or four months is the rule to which there are but few exceptions. Some authorities say the disease is "always fatal."

The cases just reported show that lives can be prolonged 3 or 4 years, and if treatment can be instituted early, before extensive softening and excavation have taken place, I believe many otherwise hopeless cases may be practically cured. The formation of fluid in the pleural cavity is the most serious complication that can occur. If it remains serous it may be absorbed, but there is a great tendency for it to become purulent and it is then an important factor directly or indirectly in causing death.

My next case is one of acute pulmonary abscess which I report, 1st, to call attention to the wisdom of treating such cases with artificial pneumothorax; 2nd to call attention to the frequency of such cases; 3rd, to illustrate the efficiency of lung collapse in controlling severe pulmonary hemorrhage.

M. D. C., age 44 years. In good health until June 1918, when he developed antrum disease. Was operated upon June 30, under local anaesthesia. On July 19, was operated again with ether anaesthesia. The next day he began to cough a good deal but without expectoration. About September 10, he developed what was called pleuropneumonia, and a week later began to expectorate. The first day he raised about 8 ozs. of foul purulent sputum. His two-hour temperature record for several days was from 98 to 99 2-5. Pulse normal. He had lost only 10 pounds in weight. His history and physical signs suggested an abscess in the lower lobe of the left lung which was confirmed by an X-ray picture. He now began to have severe pulmonary hemorrhages about once a day, varying from 6 to 12 ozs. in amount, and after trying for a week to control these with medical treatment at the Blodgett Hospital, I began artificial pneumothorax. He had no more hemorrhages after the first gas treatment and within two weeks his sputum had diminished to 2 ozs. a day. Two months later he coughed up a piece of bone about as large as a pea. Cough and expectoration rapidly diminished and in the course of 3 or 4 months had practically disappeared. I kept his lung collapsed 6 months, after which it was allowed to re-expand, and he has since been in perfect health.

About one-fourth of all deaths following surgical operations are said to be due to pulmonary complications and of these pneumonia is the most frequent, being due to the irritation of the respiratory tract by the anaesthetic, or the aspiration of infectious material during operations on the teeth, sinuses, nose or tonsils, or the carrying of a septic embolus by the blood vessels to the lung from the site of operation. When calling the attention of a surgeon to the frequency of complications after operations in the upper respiratory passages, he said he had never seen any after 4,000 tonsillectomies. Within 6 months, following tonsillectomy by this same man, I saw a case of acute pulmonary abscess ending in recovery, and one of acute tuberculosis ending in death in a young woman with incipient tuberculosis, whom I had strongly advised against taking a general anaesthetic for the purpose of having her tonsils removed.

In typical cases of lung abscess there is a history of sudden expectoration of a large amount of pus after which the physical signs of cavity may be found, and the symptoms immediately improve. This sudden expectoration of a considerable amount of pus is the most characteristic single symptom of pulmonary abscess. There may or may not be an explosive cough. The breath and sputum usually have a foul odor. Elastic tissue may or may not be present in the sputum, but to be diagnostic of a pulmonary origin it must be of an aveolor arrangement. If tubercle bacilli are not found in such sputum the case is probably not tuberculous.

The commonest and often the only physical sign is dullness. The most frequent location is in the lower lobe. Signs of cavity are rarely found. In some cases there are almost no signs at all and the diagnosis must be made from the symptoms and X-ray evidence which usually consists of a dense shadow at the site of the abscess. Before

taking an X-ray picture the cavity should be evacuated by coughing and the picture taken in the upright position to demonstrate a fluid level in the cavity. A picture should be taken both before and after coughing.

Walker has shown that the mortality of medically treated cases is 54%, the surgical mortality 25 to 30%. Lord states that 75% die if not operated upon; 18% become more or less chronic invalids; and 7% recover, the latter being mild cases of short duration.

Medical treatment, postural rest, etc., is unsatisfactory, and many surgeons believe that the only effective treatment is surgery. Incision and drainage are suitable only for single abscesses and those easily reached. In multiple abscesses surgery is usually not productive of good results as it is impossible to evacuate all of the cavities. Moreover the operation as stated is a dangerous one. Mild cases with sepsis, chills, fever, etc., may be watched for three or four weeks and if not then improving the patient should be operated upon or lung compression instituted.

Artificial pneumothorax in the treatment of these cases was first used in this country in 1917 by Tewksbury, since which time a considerable number of cases treated in this manner have been reported by different operators with, on the whole, most favorable results. The more recent the abscess, while its walls are soft and compressible, the more favorable the prognosis, and I believe that in all acute pulmonary abscesses, lung compression should be used as soon as it is evident the patient is not going to recover spontaneously. Thoracotomy and thoracoplasty should be reserved for cases in which artificial pneumothorax has failed to compress and obliterate the cavities.

As illustrated in two of the above cases the only really efficient treatment for severe pulmonary hemorrhage is artificial pneumothorax which acts as a hemostatic by compressing the bleeding lung. It is true that patients seldom die directly from pulmonary hemorrhages, but when profuse and frequently repeated they weaken the patient, destroy his morale, lead to bronchopneumonia and greatly lessen the chances of recovery. Such cases are often amenable to lung compression with very gratifying results as I have found in ten cases treated in this manner in the last seven years. If the case is bilateral, compression may be discontinued when the bleeding is controlled, otherwise it may be continued for curative purposes.

ABDOMINAL PAIN RELIEVED BY THE REMOVAL OF AN APPARENTLY HEALTHY APPENDIX

A Review of Recent Literature, with One Illustrating Case.

B. HJALMAR LARSSON, M. D.
DETROIT, MICH

CASE REPORT

Gladys C. Age 14, schoolgirl. This patient came to the Outpatient Department of the Harper Hospital on October 25, 1920, complaining of pain in the right lower quadrant. The pain had lasted about one month and was severe enough to keep the patient from her school work. A physician advised her to remain in bed and keep an icebag over the painful area. This she did and noticed some improvement during the treatment, but as soon as she got up and about the pain returned. She told us that she was suffering from nausea and headaches at times but that she never had vomited. She also presented a ready-made diagnosis of appendicitis. On physical examination she presented nothing abnormal except tenderness on pressure over McBurney's point. Her temperature, pulse and respirations were normal during the period of observation. The usual laboratory tests, including X-ray, failed to confirm our clinical diagnosis of appendicitis (chronic). After consultation, we decided that an exploratory laparotomy was justifiable. On Nov. 6 the patient was operated on by Dr. Walter Vaughan, who reported a perfectly healthy appendix; no adhesions were found. No sections were made. The convalescence was uneventful. Three months after the operation this patient presented herself at the clinic at my request and stated that she was "perfectly well." We thought it better judgment to operate in this case and find a normal appendix than by taking chances by not operating. We may add that Dr. B. Jones stated that after an examination he found no evidence of a psycho-neurotic element in this patient.

Dr. Richard Cabot reports a paralell case in a schoolgirl of 17 years of age. She came like Gladys with a ready-made diagnosis of appendicitis. The illness was of about one month's duration. That patient also came to operation. "An appendix bent upon itself and covered by old adhesions, but not inflammed," was the report.

In making a diagnosis of chronic appendicitis most writers agree upon one point at least, namely, that pain on deep pressure over McBurney's point is always present. Others state that the syndrome of constipation, lack of ambition, general weakness plus pain on deep pressure over McBurney's point are the necessary positive findings in order to make such diagnosis justifiable. Dr. Hugh Cabot in a recent paper sounds a warning against making a diagnosis of chronic appendicitis without sufficient evidence at hand. He further states that too many operations are performed for so-called chronic appendicitis without any results worthy of being called beneficial to the pa-

tient. In fact, many patients already suffering from general weakness who are subjected to a laparatomy and the removal of an apparently healthy appendix are thereby turned from bad to worse. The question of what constitutes a chronically inflammed appendix seems also to be far from settled and we might well ask ourselves whether or not an appendix which can be diagnosed as diseased only by the microscopist would be capable of producing clinical manifestations of disease. In differential diagnosis it is well to remember that the pain, when subjective, bears no relation to meals ingested, while in gastric and duodenal ulcer the pain comes on at regular intervals after meals.

Concerning Perityphlitis, Howard Kelly states that such a term is a misnomer, also "that no case can be accepted as one of primary disease of the cecum in which it is not definitely stated that the appendix was examined and found healthy."

How are we to find an explanation of such phenomena as the removal of a healthy appendix followed by cessation of the symptoms. Or the removal of an organ, the pathology of which is doubtful, followed by no improvement. Dr. Edwin Beer of New York, when recently questioned, suggested that the cecum might be redundant thus causing symtoms of pain which disappeared with the removal of the appendix and due to a slight fixation of the redundant cecum by adhesions (post-operative).

I am going to offer an explanation in the form of a theory brought forward by Dr. Geo. Waugh of London, England, and more fully described by him in the British Journal of Surgery, Vol. 7, 1919 and 1920. His theories, born out by much clinical experience, plus a thorough anatomical, embryological and physiological study, seem worthy of being better known. This authority believes that the overabundance of pathology or symptoms of pathology in the right lower quadrant as compared to other parts of the abdomen, can possibly be explained by an abnormal mobility of the ascending colon. He acknowledges Sir Lane as the pioneer in this work by the "kinks" and "angulations" theories but goes further than that authority. He further states that in spite of patient and brilliant research upon animals no investigations have so far been able to throw much light upon the human problem, or to add much, from the knowledge thus gained, to the successful treatment of these diseases in human beings. He then asks:

1. Why are all these diseases grouped together in one small area of the abdominal cavity?
2. Why are they almost unknown in childhood?
3. Why does their onset occur so frequently about the age of adolescence and unwards?
4. Why are gastric ulcers clustered around the pyloric region of the stomach, and why is it that duodenal ulcers are almost always in the first and second parts of the duodenum?
5. What are the prodromal stages of gallstones, gastric ulcers and duodenal ulcers?
6. Why is the right kidney so frequently mobile in these diseases, and why is it the only mobile one in 80% of all cases of movable kidney?
7. Why does the right kidney so frequently prolapse again after very firm surgical anchorage?

MECHANICAL FACTOR

Ulcers in most parts of the body are formed, usually, under the influence of some recognizable mechanical factor and healing occurs only when the recognized irritant has been removed. The mechanical factor that leads to focal ulceration of the stomach and duodenum, to the stagnation of bile, and to the mobility of the right kidney, may be provided by the presence of a mobile ascending colon. Anatomically he relates how the hepatic flexure of the colon lies in intimate relation with the pyloric end of the stomach, the gall-bladder and the cystic duct, as well as the second and third portions of the duodenum. The firm fixation of the ascending colon is a prime necessity for the efficient performance of its function.

In order to have a clear view of the theories brought forward it is necessary to briefly review some fundamentals in what is generally accepted as normal in the anatomy of the colon. The ascending colon is retained in contact with the posterior wall of the abdomen by the peritoneum which covers its anterior surface and sides, its posterior surface is connected by loose areolar tissue with the quadratus lumborum muscle and with the front of the lower and outer part of the right kidney. Sometimes the peritoneum almost completely invests it, and forms a distinct but short mesocolon. The descending colon occupies a similar position on the left side and is covered by the peritoneum in a similar manner. But it is more frequently covered by peritoneum on its posterior surface than the ascending colon.

EMBRYOLOGY OF THE PERITONEUM AND THE ALIMENTARY TRACT

The stomach and intestine with their mesentaries undergo changes of position determined by several growth factors, such as the elongation of the intestine, and the development of such organs as the liver, pancreas and spleen. Such developmental changes, with the subsequent displacements, adhesions and absorptions serve to form all the mesentaries, omental and peritoneal

folds of the adult, so that while in the primitive condition the intestinal tube is suspended by a dorsal mesenary and freely movable, certain portions of it become later by secondary adhesions, firmly connected with the parieties (retroperitoneal) or with other portions of the tract. Occasionally the descending, more rarely the ascending mesocolon persits so that the bowel is more or less movable in these divisions.

Treves examined carefully one hundred subjects and reported the following. In 52 there was neither ascending nor descending mesocolon. In 22 there was a descending mesocolon but no trace of a mesocolon on the ascending side. In 14 subjects there was a mesocolon to both the ascending and descending segments of the colon. In the remaining, 12, there was an ascending mesocolon but no corresponding fold on the opposite side. We may, therefore, expect to find a mesocolon in 36% of subjects on the descending side, while on the right or ascending side in 26%.

It seems that these findings would be of great importance in explaining the bizarre position which is sometimes occupied by certain parts of the colon. In fact, Dr. Mills of St. Louis states that "a single type of visceral anatomy and physiology is impossible."

Dr. Waugh speaks of the ascending colon as that part of the large intestine which is included between the lowest part of the cecum and the highest point of the hepatic flexure, in discussing its funcion or pathology. With the exception of the cecum it should be firmly plastered to the posterior abdominal wall. The abdominal mobility of this part of the gut leads to displacements and abnormal positions of it, accompanied by drags and pulls on other important organs with which it lies in close relation.

FUNCTION OF THE ASCENDING COLON

It has a unique function. (It is the only segment of the gut throughout the alimentary tract that has to support semi-solid material against the action of gravity and to drive it vertically uphill.) Elsewhere the contents are fluid or their path is either obliquely horizontal or down hill. Only a fixed segment of gut can give mechanical efficiency in the performance of its normal function. The weight, both of the gut itself and its load is then distributed sideways through its broad lateral attachments and its normal functions can be carried out without any shifting of position. But with the persistence of its mesentary or part of it, the gut must sag until the mesentary is taut, and as the gut receives its normal load, so will the tautness of the mesentary increase. Further, the peristaltic wave starting in its lowest segment will expand its energy partly on the mobile segment of the gut immediately above it and partly upon its contents instead of entirely upon its contents as it would if the gut were fixed. The whole strain excerted by the weight of the gut and its contents is now concentrated along the narrow linear attachment of its primitive mesentary posteriorly, and the tendency to progressive overloading is established through the wasteful expenditure of the wave of peristalsis in moving the gut as well as its load. A fixed, not a mobile viscus, is necessary for carrying on its normal function.

As the gut reaches its full size at adolescence, it then contains its heaviest load, explaining the appearance of symptoms at that time. There occurs no proportionate strengthening of its mesentary, only an increase in the fat deposits between its layers which in itself is not capable of much assistance in increasing the mechanical efficiency of supporting a segment of gut.

In childhood the gut is small and so is its load and disabilities, resulting from a mobile ascending colon, are apt to be obscure and masked. A large number of patients give a history of a perfectly healthy childhood and early adolescence. On the other hand, a few had suffered from vague digestive disorders in childhood. These were never properly diagnosed but a variety of treatments were bestowed upon them.

The local effects felt earliest are on the right kidney, the duodenum, gall-bladder, pyloric region of the stomach, later in more remote regions as the liver, cardiac end of the stomach and even the left kidney. A general prolapse of all the viscera of the abdomen can thus be represented as an orderly process due to the physical stress entailed by the attempt of the growing ascending colon to sustain its own weight and an ever increasing load upon its mesentary.

Of all mobile kidneys the right is mobile in 80% of cases, 15% are bilateral. Surgical operations for the purpose of fixation of mobile kidneys do not deal with the force that has brought about the prolapse and are, therefore, generally unsuccessful. This is directly due to the fact that the full weight of the gut with its load is distributed along the narrow line of the posterior attachment of the mesentary instead of being dispersed over a broad area sideways, as when no mesentary is present. The mobility and capac-

ity for prolapse of the hepatic flexure of the colon have an important influence on the position and direction of the transverse colon and consequently upon the path of its contents. As the hepatic flexure slides down to below the level of the iliac crest the direction of the transverse colon will be a slooping vertical one on the right side, with a resulting long, steep, vertical drive for semisolid material ascending toward the splenic flexure. On account of its firm anchorage by means of the costo-colic ligament, the splenic flexure seldom prolapses.

The result of this condition, a mobile ascending colon, may be divided into several types; the gastric, duodenal, biliary, renal and the right iliac fossa types, in accordance with the localization of the pain. In the right iliac fossa type, the one with which we are principally concerned, the salient feature is chronic pain in the right iliac fossa plus dyspeptic symptoms. The onset usually begins at adolescence and is generally described by the individual as "indigestion." This "indigestion" cannot usually be explained by indiscretions in diet, bad habits of life, or unsuitable environment. No change from any of the supposed causes are able to bring relief. The pain may remain present for several days diffused over the right iliac fossa. It appears to be a sensation experienced from a chronically overdistended segment of gut to which the element of dragging is added. Many of these patients also give a history of mucous colitis and Dr. Waugh relates a specific case of seven years' duration which was cured by fixation of the ascending colon. Many patients present themselves with these pains after a perfectly healthy appendix has been removed (68 out of the 180 cases here reviewed) and are relieved only after a second laparatomy with fixation of the ascending colon.

Due to the irregularity in the appearance of the symptoms, directly caused by the strain of a mobile ascending colon, many of these patients are classified as "neurotics" or "neurasthenics." In children the condition is generally regarded as "chronic appendicitis" or "dyspepsia." Pain, not very severe, of different length of duration is complained of in the right iliac fossa. It is intermittant in character and examination of the abdomen seldom reveals any obvious explanation for its presence. There is no real tenderness, no real muscular rigidity, but a full ascending colon can be detected when carefully sought for. Vomiting seldom occurs, but nausea and lack of appetite are invariably present. The patient is clearly very ill and in the absence of guiding signs in the region where the symptoms are experienced one is easily lead to a panicky removal of a healthy appendix. Careful palpation of the outline of the ascending colon will reveal that it is overdistended; this can then be confirmed by X-ray.

Out of more than 100 children operated on (not included in this series) who were under 12 years of age, a persistent mesentary of the ascending colon were confirmed at operation. Only in seven, out of these hundred cases, was the appendix found to be diseased; in the remainder it appeared to be healthy in every respect.

Dr. Waugh gives a detailed analysis of 180 cases operated upon by himself. In all of these cases, besides the removal of an often healthy appendix, a fixation of the ascending colon was performed. These cases were followed up from a few months to six years and the results were uniformly satisfactory. Out of 112 cases, who upon operation were found to still have their appendix intact, only 9 were found to be diseased. In those cases where the appendix was classed as healthy, it was small and infantile in appearance, and even the most skeptical would probably have agreed that its mere removal could not have in any way modified the patient's symptoms.

On examination of these patients it is important to notice the fullness of the cecum and the ascending colon and to the variation of position of the right kidney. This varies from a slight increased mobility and palpability to a gross prolapse. X-ray will further show the malposition of the ascending colon as judged by the position of the hepatic flexure.

CONCLUSIONS

Would it not be possible by these observations to find a clue to many hitherto obscure conditions of the abdomen, which, due to their unknown etiology have defied all sorts of treatments, mostly speculative. Besides the types already mentioned it is probably safe to include enteroptosis and chronic intestinal stasis. We also believe that further observations along these lines may bring about remarkable therapeutic results by finding and correcting malformations, for the purpose of restoring the normal function of an organ which has been handicapped in the performance of its intended function. This malformation is congenital, it is present in a certain percentage of all individuals and due, no doubt, to certain developmental and evolutionary

changes to which the human specie is subjected.

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IN THE FINAL ANALYSIS IS LANE'S KINK REALLY A TROUBLE MAKER, OR HAS IT A LIFE SAVING FUNCTION?*

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Although Lane's Kink as a cause of intestinal stasis has ceased to be a subject of very active discussion, the attention that was directed to it a few years ago, and the constant reiteration that it was an abnormal condition giving rise to serious ill health, have left impressions that are slow in being erased. That the condition is probably a normal one has not been advanced as often and as clearly as I believe it should be, and that it may have a distinct purpose has, as far as I know, never been presented.**

In the last year I have seen four cases of intussusception, three of these were of the ileocecal type—that is to say—the ileum had invaginated into the caecum. The fourth was of the enteric type, small bowel into small bowel. In each of the three cases of the former type, the mesentery of the ileum was very long. This allows increased range of motion of the intestine, and, therefore, is rightly regarded as a predisposing cause of intussusception. It is hardly conceivable that the ileum could invaginate if held by a short mesentery. May we not argue then, that if these infants had possessed a short mesentery at the lower end of the ileum, or in other words, a condition which is occasionally found in adult life, and has repeatedly been described as Lane's Kink, that this catastrophe would have been averted. Moreover, is it not probable that Lane's Kink has been unjustly denounced? Should it not be credited rather with having a distinct life saving function?

After reduction of an intussusception of the iliocaecal type, to prevent recurrence, we either suture the lower end of the ileum parallel to the caecum for a short distance, or anchor the intussusceptum by a few stitches through the mesentery to the posterior layer of the peritoneum—in the latter procedure we deliberately produce what is practically a Lane's Kink.

Intussusception occurs most frequently in infants. Power has pointed out that the proportion of the length of the mesentery to the length of the body is relatively greater in infants than in the adult, and may this not account, in a measure at least, for the relatively greater frequency of intussusception in the former?

Very recently one of my colleagues operated a case of intussusception of the ileocecal type in an adult. In another room we were operating upon a patient who had a short mesentery and a band which produced what has been described as Lane's Kink. I believe we were able to demonstrate to the satisfaction of everyone present that it would absolutely prevent an accident such as the patient in the adjoining room presented. With such an object lesson before us, it is needless to say that we did not disturb matters, but left the "kink" as it was.

I think we might properly ask the question—"Is it not the purpose of a Lane's Kink to prevent an intussusception?"

*Read before the Kalamazoo Academy of Medicine, October, 1920.

**Since this paper was read reference for this idea has been made by Morley, Brit. M. J. 1920, II, p. 542. Abstracted, Int. Abst. Surg. March 1921, p. 196.

AN IMPROVED GASTRO-DUODENAL TUBE

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With the advent of study of the duodenal contents, particularly the pancreatic ferments, the writer in 1912 devised and used successfully a modification of the Jutte gastro-duodenal tube. More recently, since the publications of Lyons, Smithies, etc., on bile studies and non-surgical drainage of the biliary tract, this same tube has been found more satisfactory than any of the other numerous forms.

A good gastro-duodenal tube and tip must meet the following requirements. (1) The tip must be heavy enough that it will readily sink to the most dependent part of the stomach. (2) The tip must be small enough and so shaped to easily pass through the pylorus forward or backward. (3) The openings at the tip must be as large as the lumen of the tube. (4) Any connections should have a lumen as large as that of the tube. (5) The tube wall should be stiff enough that it will not collapse on suction, or buckle when the tip meets resistance. (6) The tube should be marked at proper places so that one can readily tell how far it has traversed the gastro-intestinal tract. (7) The whole tube should be long enough that it may hang over the side of bed or couch and drain by siphonage when desired. None of the forms of the gastro-duodenal tube thus far described in the literature, meet these requirements. The Einhorn tip is too light and the holes too small. It is also an expensive tip to manufacture. The Jutte tip is too light and the holes too small. The Rehfus, Lyons, and Palefski tips are heavy enough and have large openings but are too large to readily pass the pylorus, especially in those cases with a certain amount of pylorospasm.

The tip which the writer uses is olive shaped, made of solid metal, nickel plated. It is 1¼ cm. long; ¾ cm. in diameter and weighs 5 gms. It is connected with fairly rigid rubber tubing ¼ mm. in diameter, in the usual manner. Its total length is about 135 cm. The openings are made in the tube itself. They are oval in shape, parallel with the tube and not opposite to each other so that the tube is not easily buckled at this point. Four holes of this character are sufficient and are placed within 4 cm. of the metal tip.

The tube is marked with a single line at 50 cm. (20 in.) which is about 10 cm. beyond the cardia of the average person. It is again marked with a double line at 75 cm., which is about 10 cm. beyond the pylorus. Another single mark is placed at 85 cm. so that one can readily tell the length of tube in the patient in case it is desired to pass it beyond the 75 cm. mark.

Directions for passing tube: The patient is seated, told that the tip is to be swallowed, cannot be pushed and that as soon as it is beond the larynx there will be no retching or gagging. With very nervous patients and those who vomit easily, sen-

sitivity of the throat can be lessened by spraying with 5% cocaine. With the patient's head back and mouth open, place the tip over the back of the tongue, depressing it with the finger if necessary, then bring patient's head forward and instruct him to swallow vigorously until the tip is engaged. At this point the patient is instructed to breathe deeply and regularly through the mouth, to take his time and swallow, without biting the tube, until the desired length has been introduced.

If it is only desired to aspirate the stomach contents, allow the tube to pass to just beyond the first mark, or at the place where the contents are most easily obtained.

For duodenal intubation pass tube to first mark, wash stomach till contents return clear, slightly withdraw the tube, and have patient lie on right side. Then slowly swallow tube to the double mark (75 cm.). This 25 cm. should not be swallowed faster than about 1 cm. per minute. For patients with extra long or short chests allowance should be made in the length of tube passed.

Position of the tip. This can be ascertained by a number of signs. (1) When the tube is still in the stomach, the aspirated material is positive for free HCL. by the dimethylamido-axo-benzol or Congo red test (unless there is achylia). When the tip has passed to the duodenum free HCL. is negativ. (2) The presence of bile in the aspirated material is suggestive that the tip is in the duodenum, yet this test cannot be relied upon as bile is often regurgitated into the stomach, especially when gastro-intestinal pathology is present. (3) Allow patient to drink a half glass of water and if the tip is in the stomach this clear water can be aspirated immediately, but if in duodenum little or no water is obtained. (4) Slowly with a syringe inject a little air through the tube, at the same time listening over the epigastrium with the stethoscope. If the tip is in the stomach the maximum gurgle is heard over the epigastrium and to the upper left, while if the tip is in the duodenum the gurgle is loudest to the right and down. (5) X-Ray. If a fluroscope is handy, one can easily see the position of the tip.

IT MUST BE MADE RIGHT FROM THE START

Norway is best known for her midnight sun and her immense harvests of the deep. Nature has nowhere been so prodigal in providing ideal conditions for the spawning, feeding and development of the True Gadus Morrhuae, than in the waters surrounding the far-famed Lofoten Islands, Norway. For a century or more, cod liver oil has been recognized as a dependable and easily absorbed nutrient and more recent investigations reveal that it is an exceedingly fruitful source of the anti-rachitic vitamines. Cod liver oil to be utilized to fullest extent by the system should be pure and sweet and free from admixture with inferior non-cod oils and also free from admixture with blood and gall—due to careless and unscientific handling of the livers. Cod liver oil is as delicate as butter and in the selection and processing of the livers, should receive as much care as science has thrown around the production of pure milk. It must be made right from the start. For nearly half a century the producers of the "S & B Process" Clear Norwegian Cod Liver Oil have concentrated their endeavors and specialized upon the product of the livers of the True Gradus Morrhuae. Never satisfied with the quality of oils offered on the market, several years ago Scott & Bowne established their own cod liver oil plants in Balstad, (Lofoten) Norway, where under most exacting, modern scientific and hygienic conditions, the "S & B Process" is produced. This high grade oil is then brought over seas in special containers to be refined in the unique S & B laboratories in America. The "S & B Process" is the only cod liver oil made in Norway and refined in America. This oil is guaranteed a 100 per cent product of the livers of the True Garus Morrhuae and absolutely free from admixture with other oils or impurities. Physicians may prescribe the "S & B Process" with an assurance that his patient will always receive the nutrient and vitamic virtues of cod liver oil in truest form. We are reliably informed that liberal samples of this high grade medicinal cod liver oil will be sent to physicians on request. The address is Scott & Bowne, Bloomfield, N. J.

COUNCIL REMEDIES

One of the most important developments in the medical history of the past five years has been the work of the Council on Pharmacy and Chemistry of the American Medical Association. Their examination and analysis of newer remedies has done much to advance the standard of manufacturing pharproducts, and indicating those for which misleading macy; it is safeguarding the doctor against inferior claims are made.

The co-operation of the doctor in using and prescribing council-passed products is making this work more effective each year. The co-operation of the manufacturers is, also, an encouraging recognition of the value of this service. A partial list of the council-passed remedies, manufactured by the Ab- These are obtainable on prescription at the leading bott Laboratories, Chicago, appears in this issue. pharmacies, or may be obtained direct, as desired.

The effect of fruit juices in the mouth is now quite clearly understood. The common expression that a taste of orange or apple makes one's mouth water means that these mildly acidic fruit juices have the peculiar power to stimulate salivary flow.

More than that, it means that the saliva which responds to this stimulation is frequently more normal than was found in the same mouth during the pre-stimulated period. This is one of the chief reasons why fruit should form a part of each meal, why each meal should open and likewise close with fruit.

It produces a copious, fluid, alkaline saliva, which is so essential in order that the oral cavity may function properly.

Latterly various investigators have found that sist nature in maintaining a normal saliva. They have, moreover, proven that alkaline mouth preparations are contra-indicated in the mouth and should be abandoned because they oppose nature in maintaining normal oral secretions.

The most universally used acid dentifrice is Pepsodent. It is indorsed by many in the professions and used daily by millions because it stimulates dentifrices should be mildly acidic like fruit to assalivary flow in manner similar to fruit.

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Editorials

HISTORICAL DETAILS OF OUR SOCIETY

For several years we have felt that there were some discrepancies in regard to the facts surrounding the early history of our State Society. It had ever seemed strange to us that the profession of this state had been apparently organized for a comparatively brief period of time—56 years—when the societies of surrounding states were past their century marks. We had determined upon several occasions to institute a search into past history with the hope that we would be able to find some reason for our juvenility. This determination was never pursued for one reason or another.

At our so-called 50th Annual meeting, Dr. Peterson, in his presidential address, reviewed our history as depicted by the lives and labors of our past presidents. Nothing was said in his address about earlier historical facts and so we gained the impression that our records as revealed today were correct and that we were certainly juniors in the world of medical organizations of State Societies. Recently we were again reflecting upon the reasons why there had been no medical organization previous to the Civil War. The question of "How old is Anne?" insofar as it pertained to our Society annoyed us considerably because we felt certain that we were in part misrepresenting our age. A search was undertaken and the following facts revealed in that search is submitted to our members for their consideration. The data is secured from the Transactions of The State Medical Society commencing with the oldest volume in our possession and running through the first issues of Volume One of The Journal.

In 1870, Dr. Richard Inglis delivered the Presidential Address. He reviews the history of the Society and the following is quoted from that address:

"On the 14th of June, 1819, an act to incorporate Medical Societies for the purpose of regulating the practice of medicine and surgery, was adopted and signed by the Governor, Lewis Cass.

"The preamble of that act says: 'Whereas, Well regulated medical societies have been found to contribute to the advancement and diffusion of true science, and particularly the healing art, Therefore, Be it enacted, etc.' Such was the estimation in which our profession was held by the legislators in those early days. The Act provided for the establishment of the Medical Society of the State of Michigan, and also for county societies.

"In accordance with the act, the First Medical Society of Michigan was organized on the 10th of August, 1819. Dr. Wm. Brown was elected president."

The above fact as revealed in our records demonstrates clearly in our mind that in place of having an organizational history of only 56 years we are in reality an organization that has existed One Hundred and Two Years. This is substantiated in the further perusal and study of the early records that are available. How the discrepancy between 102 years and 56 years occurs we will later demonstrate by quoting from these same official documents. First, however, we wish to point out the years of existance of certain of our County Societies, in order that they may likewise receive information as to their age.

The following is obtained from the records:

On June 12, 1827, permission was granted to Drs. Nichols, Pomeroy, Kitteridge and Lord to form a Washtenaw County Medical Society.

On June 12, 1831, permission was granted

Drs. Thompson, Porter, Parke and T. Thompson to form an Oakland County Medical Society.

On July 23, 1835, Drs. Loomis and Hubbell and others were permitted to form the St. Joseph Medical Society.

In January, 1836, Dr. L. T. Jenney was authorized to form the Macomb County Medical Society.

In January, 1836, the Monroe County Society was authorized.

In June, 1837, Drs. Littlefield, Alden, Randall, Noneclott and Caulkins were authorized to form the Branch County Medical Society.

Although we cannot find record of the exact date of organization of the Wayne County Medical Society, still we do find this: "April 14, 1849, we learn that the Censors of that society reported that Edmund Andrews is entitled to be received as a student of medicine by any member of the Wayne County Medical Society." We are justified to conclude that the Wayne County Medical Society was duly authorized.

From the above it will be seen that previous to 1850 there were at least seven authorized county medical societies that were component units of the Michigan State Medical Society.

As the search progressed we read that in 1851 the law that established the state medical society was repealed by the legislature and the society held its last meeting on January 14, 1851. During the period of its existence the membership had grown to 63 and the reason explaining this apparently small membership was that the yearly accessions were limited to two members. The annual dues were $5.00 and a fine of $1.00 for failure to attend the semi-annual meetings. The Society's first officers were: President, Wm. Brown; Vice President, Stephen C. Henry; Secretary, John L. Whiting; Treasurer, Randall S. Rice; Censors, E. Hurd, S. C. Henry and R. S. Rice. At the time of organization there were but eight doctors in Detroit. In the 32 years there were but seven presidents. The officers served or were re-elected for a number of years. Of the secretaries there were four. J. L. Whiting, 11 years; R. S. Rice, seven years; E. M. Cowles, one, and J. B. Scovil, 14 years in office.

Dr. William Beaumont, of Mackinac was elected to membership on June 14, 1825 and on August 27, 1826 he gave the society his celebrated report of his case of gastric fistula and his clinical and chemical studies of digestion, etc. In 1900, our society erected a monument in his honor and memory on Mackinac Island.

Thus did the first period of our Society terminate. Much more that is interesting is found in the records but this editorial will not permit their publication.

On March 30, 1853 the organization was again revived at a meeting held in Ann Arbor, and Dr. George Landon was elected as president. The eighth meeting of that reorganization was held also in Ann Arbor as an adjourned meeting of one held in Coldwater, January 18, 1860, but there were so few members in attendance, the financial earthquake, the Civil War, all induced such a spirit of discouragement that the society was disbanded March 29, 1860. The total membership was 115.

The third evolution period of our Society began in 1866 when 100 doctors from all parts of the state met in convention for the purpose of organizing a State Medical Society. The organization was perfected and the first annual meeting was held in Detroit that year, the next was also in Detroit, the third in Lansing, the fourth in Kalamazoo and the fifth in Grand Rapids. The records from 1866 are intact and the organizational activities are well and clearly recorded. They are in our files and will so be preserved.

It thus becomes apparent that at present we are in the 56th year of this third reorganization and in the 102nd year of our first organization.

Two questions naturally inject themselves after one has delved into these records; Should we designate the years of our organization from the year 1819 or, is our present designation of the years of our organization the proper one? This is a question we feel should be solved by our Society at its next annual meeting. In the meantime we would welcome comments and suggestions. One thing is certain and that is that the organization has been known as the Michigan State Medical Society since 1819.

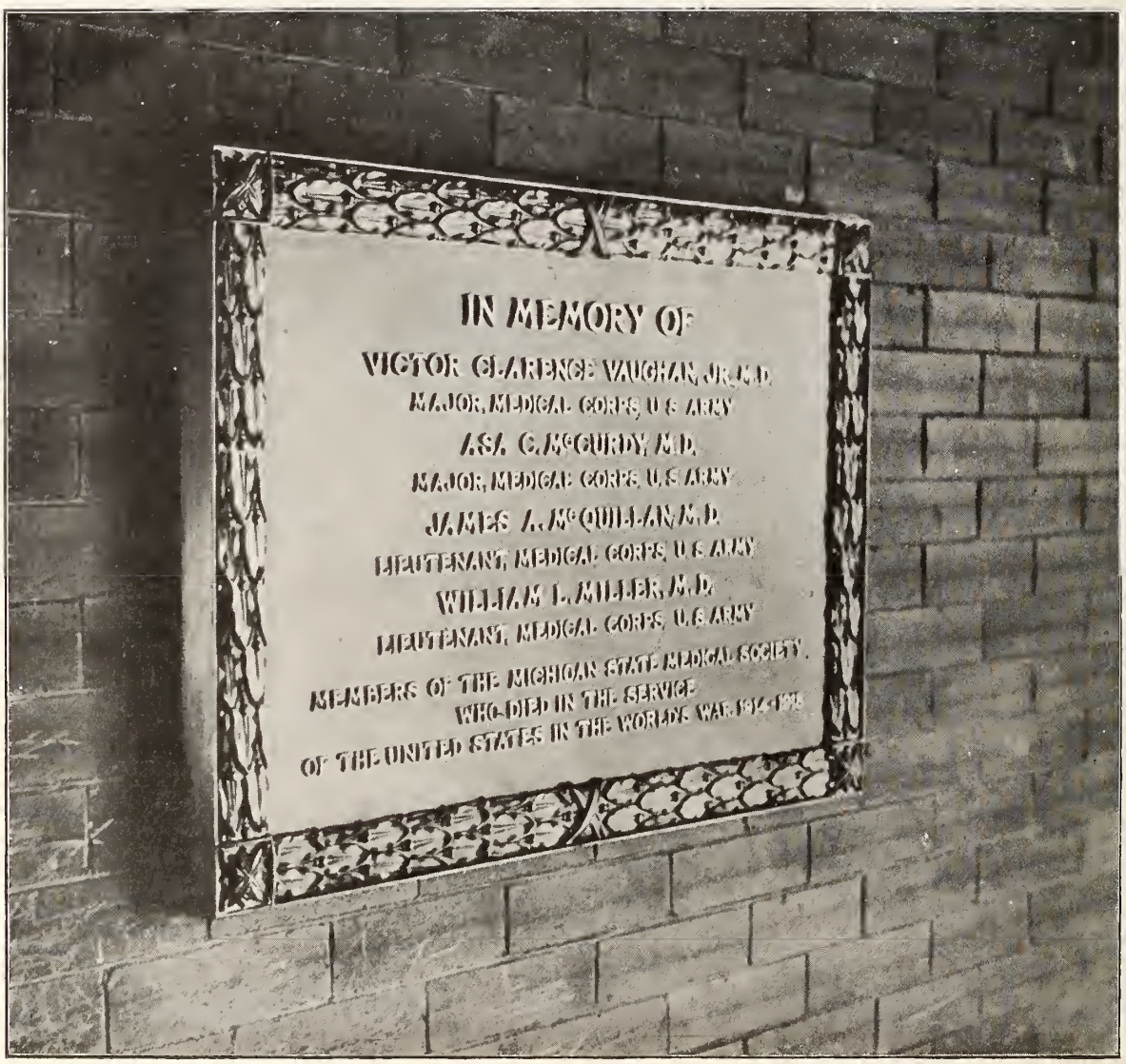
We also feel that it is desirable and that the work should be undertaken to carefully compile a complete medical history of the organization from the year 1819. The records available in our hands are not complete. We glean from our reading that there is in possession of Drs. C. G. Jennings, Duffield and Connors' records and papers of the early history of medical affairs in Michigan. Reference is made to them in several places. In 1913, Alpheus Jennings of Detroit prepared some of the extracts of the minutes of meetings held in the early 1820's and they

were published in The Journal of 1913. They are not completed records. Undoubtedly there may be other sources through which a Historical Committee might uncover additional information. On the whole we believe that such a detailed history brought up to our present date would be of inestimable value and interest to our members.

ARMISTICE DAY—TWO MINUTES

As the body of an "Unknown Soldier" is being buried in Arlington Cemetery with all the honor, glory and ceremony that can be accorded by our representatives of the army, navy and executive officers, President Harding asks that all citizens pause in their activities from 12:00 to 12:02 noon on November 11. The President's request is that during these two minutes we uncover and with bowed head stand in reverance of, and in tribute to, those who made the Supreme Sacrifice during the World's War.

We are sure that the contribution of these two minutes from pursuit of our activities is little enough indeed to contribute to perpetuate the memory of these, Our Dead. We are sure that in doing so we are reconsecrating again the life they gave. We are sure that in thus perpetuating their memory we are once more reaffirming our allegiance to our flag and the nation under which we are privileged to pursue our vocations and which vouchsafes our freedom. We are sure that there can exist no excuse for failure to not comply with President Harding's request.



Two years ago our State Society caused to be prepared a tablet that contained the names of the members of our society who gave their lives in the service of their Country. This tablet has been placed upon the walls of the Medical Building of the University at Ann Arbor. Arrangements have

been made whereby a proper wreath will be placed above this tablet on Armistice Day. While we may not be able to be in Ann Arbor on that day, shall we not during those two minutes of silent tribute recall in reverance these four of our number whose names remain upon the muster roll of our Nation's Dead?

DIAGNOSTIC CLINICS

That there is gradually, and at times with startling features, a changing relationship between the profession and the public being evolved is becoming more and more apparent. That this change is bringing about similar changes in our erstwhile relationship to one and another is likewise becoming apparent. Whether the proper solution is being sought, or, whether we are creating a state of more or less chaos from which the eventual solution will be evolved we do not at this time feel inclined to express opinion. Whether or not the combination and proposition of certain groups and their pursuit of organized activity to the exclusion of and conceivable detriment to other isolated individuals or groups is inducive to united effort in quest for a new standard, we again refrain from making a definite pronouncement as to the propriety of such a movement. We cannot help but view these new undertakings with some misgiving while at the same time we conjecture as to their final outcome and how they will affect our individual and combined futures. We have endeavored and shall continue to endeavor to express impartial comments upon all such movements that originate in our midst. The comments that we do make are advanced solely in the spirit of provoking wide-spread consideration of these problems, thereby evoking the deliberate judgment and recommendations of the entire profession. We do not propose or hold that such of our observations as are thus expressed are final or representative. Neither are they intended to reflect upon the integrity or sincerity of those who are sponsors for these newer propositions and methods. We are endeavoring only to raise pertinent questions pro and con.

During the past month a new feature has been injected into the profession's communal progress that bids well to markedly alter our individual relationship with the public and which at first glance threatens to seriously affect the individual doctor. Grace Hospital and Harper Hospital, both of Detroit, have made wide-spread announcement to the profession of their Diagnostic Clinics and the rules under which these Clinics will be conducted. Shortly after the announcement made by these two hospitals we were in receipt of a third and fourth announcement of a similar Clinic at Butterworth Hospital in Grand Rapids and at the Battle Creek Sanitarium. We anticipate that like announcements will be forthcoming from other hospitals in other parts of our state. How shall we interpret this movement?

At first the thought occurs that these hospitals mentioned and finally all similar Hospital Diagnostic Clinics at once enter into direct competition with the individual doctor. That the relatively few doctors composing the staffs of these hospitals have combined, and are exerting their combined professional influence and skill, together with their institution's prestige to secure public patronage with the resultant pecuniary returns that naturally must follow. That the doctor, who is not connected with these staffs, is at once confronted with a most formidable array of organized competitors who possess advantages that he cannot hope singly to acquire. How far this first thought objection will hold true we cannot state. While it is now announced that only referred cases will be received, we can readily perceive that but one small step further would accomplish the admittance of any patient that might apply. The announcement is very indefinite in that respect. A precedent is not permanently established.

The teachings and tendencies of practice for sometime past have been directed toward inculcating the need of making more accurate and positive diagnoses. It is continuously being pointed out that tentative diagnoses, with watchful waiting therapy, is not conducive to reduced mortality rates or morbidity—and rightly so. Methods have been developed whereby greater accuracy in diagnosis may be attained. These methods have become more and more numerous while at the same time their reliability has been established. In our publications, texts, meetings and discussions we have urged the employment of these so-called laboratory tests and examinations. We have urged the making of positive diagnoses. We have sought to encourage all doctors to become better and abler diagnostitians. In doing so we knew that we would produce greater and more efficient therapists and physicians. That movement cannot be criticised. It cannot be abandoned. It cannot be abruptly terminated.

The institution of these Diagnostic Clinics will stultify incentives to become skilled diagnostitians. Why and how? First, the assumption is implied that correct diagnoses can only be made in the institutions or hospitals that have complete laboratory equipment and a staff of special workers. That the final summing up of all the examinations by the individual cannot result in as accurate a conclusion as the summing up of the evidence by these grouped specialists. Second, That the individual physician cannot hope to give his patient the benefit of laboratory facilities, nor does he possess the ability to know when and how to employ these tests, not to say anything about their interpretation. Third, that the individual cannot employ the services of laboratories because the fees demanded exceed the average patient's ability to pay them. That only endowed institutions can afford to make reduced rates. Fourth, that the atmosphere surrounding these clinics will establish a certain prestige and atmosphere that will appeal to the public and its peculiar characteristic that causes people to seek such surroundings because of their apparent progressive and modern novelty, or, rather newness.

For these reasons and because of their inherent possibilities they create what we may term a competitor that is impressive to the public and will meet with public response that will be beyond possible attainment by the vast number of men who are in general, and even special, practice. The tendency will be and will grow for group or clinic diagnoses, thereby relieving the practitioner of the need of making a diagnosis except in the commoner and acute ailments, for in the other cases the diagnosis will have been made for him and his connection with the case will be more in the nature of therapist or supervisor of forms of treatment recommended by the clinic. There will be no incentive for the individual man to remain abreast with diagnostic measures for his position is to be one of supervision largely.

The foregoing are only condensed and superficial objections that suggest themselves. They may readily be developed and enlarged upon, but to do so is not our intention at this time. We are not endeavoring to enter into the details of the argument—we leave that for the reader's further thought and study. We proceed to cite other objections.

For several years past we have been greatly concerning ourselves regarding state medicine and health centers, etc. We have gone on record as being bitterly opposed to such movements or attempts to thus force upon us positions as state or public employes. That we have done as a whole, but now from among our very midst we are establishing and creating that very type of practice under another form. We may call them diagnostic clinics but in reality they are health centers or community clinics because they will exist, develop and progress by reason of public and institutional paternalism and endowment. The principle that we have in the past objected to is the same, though christened with another name and sponsored by doctors and conducted by a comparative minority of the profession. In addition, once established they will not remain limited in their scope. Rivalry will naturally follow and it will not be long before the requirement that the case must be referred by a doctor, will be removed and any individual may come to the clinic and obtain an examination and a diagnosis without having to present a reference card from a doctor. And as the movement develops it is but one short step from diagnosis to the inclusion of treatment in the clinic's function. We prophesy, that just as sure as fate, such will be the progressive inroad that will be made upon our present relationship of physician and patient. The man not associated with a clinic or hospital staff, especially in our centralized groups of people will indeed be a lone weary and sore-tried doctor living upon the scraps of the professional board.

Thus far we admit that we have concerned our reflections largely with the weal and woe of the individual doctor. We accept the objection that we are crying "wolf" because the reality becomes apparent that we are in danger of losing those who enable us to make a comfortable and somewhat independent livelihood. We recognize that there are other factors involved such as the demands of the public, the development of knowledge, the movements toward health conservation and the enhancement of physical well being of all people. We are not prepared to state that these latter reasons are not paramount or of greater importance than our individual welfare. We concede that possibly we shall fail to meet up to our responsibilities unless we do comply with these present-day theories and progressive requirements. These are problems that demand our most intense consideration and are to be seriously weighed against those of our own individual

inclinations and desires. We do not purpose to enlarge upon them. We are commenting only to draw attention to the subject and to indicate how it is pressing closely at our very doors for solution.

For that purpose and that alone have we raised and presented the question. It is for you, Doctor, to determine what our attitude shall be when you demand to be heard. There is much over which to ponder. There is indeed great need for judicious opinion and advice.

GASTRIC AND DOUDENAL ULCERS

Though there are some that claim that they do cure all cases of gastric and duodenal ulcers by medical measures alone such claims cannot be substantiated. They may secure temporary relief and discharge a symptom free patient, still a cure has not been accomplished. There are those also who, with emphatic assertion declare that it is only by surgery that a cure can be accomplished in gastric and duodenal ulcers. This latter class also are in error. Medical measures do not accomplish results that are 100 per cent permanent, neither do surgical measures. Furthermore combined medical and surgical treatment does not encounter 100 per cent cures even though the patient survives the combined treatment.

There are types of cases that will respond and will be cured without operation. There are also types of cases that will not be cured unless surgery is resorted to. There is this middle attitude that is being manifested by larger numbers of internist, or rather gastro-enterologists and by surgeons.

It is not our purpose in this editorial to enter upon the discussion of the claims and assertions of the extremists of both of the afore-mentioned classes. We seek only to point out a few of the incidents and observations as well as measures that are the factors that are mobilizing in larger numbers those who now announce that they believe that there are types of cases that require and will respond only to medical treatment as well as those that cannot be cured without resorting to surgical measures. This opinion is resultant because of the following progress that has been accomplished within recent years.

Greater attention has been given to food, their values and their ingestion. What, and how to eat, as well as what not to eat, has done much to remove certain etiological factors that caused these ulcers. The next five years will witness still greater progress along the line of dietetics.

Progress along the line of bacteriological investigations has revealed much that has a direct influence upon the formation of these types of ulcers. The selective action of certain types of bacteria has demonstrated new truths and facts. The result of foci of infection upon the gastro-intestinal tract is now recognized.

Roentgenograms now enable us to definitely establish the correct diagnosis, and the refinements of radiographic examinations are deserving of no little credit for the clearer insight that is now obtainable of this form of gastro-intestinal disturbance. Within the past few weeks Carman points how it is now possible in a large number of cases to diagnose the existance of cancer in these types of ulcers by means of certain types of deformity that may be seen during the X-ray examination.

The Rehfuss tube provides us with important diagnostic evidence and is a most valuable means in accomplishing a cure or rather a healing of the ulcer.

Indigestion, dyspepsia, catarrh of the stomach and similar masking terminology are now recognized as not being tenable diagnoses or entities. Their passing has brought about the abandoning of a waiting and expectant plan of treatment and a cessation of doping with so-called stomachics and digestants. Our therapy is becoming more and more intelligent.

It is recognized that certain types of ulcers in certain locations are definite surgical cases that will be improved or cured only by surgery. The alert do not waste time in treating them by other measures.

A review of our surgical results has demonstrated wherein and how surgery has failed. A gastro-enterostomy is not an infalliable curative measure. It has its limitations as well as a fairly definite percent of jejunal ulcers that occur at the sight of the enterostomy. The excision of the ulcer and a pylorplasty or a gastro-enterostomy does not insure in every instance a cured or even symptom free patient. We now see in the review of these surgical cases certain types that had better have been left un-operated and referred for medical treatment because of the end results obtainable by that form of treatment.

A number of other factors enter into and form the basis for this changed and temperate viewpoint that is now being held in regard to these gastric and duodenal ulcers. It is impossible to enlarge upon them or advance them at this time. They es-

tablish the opinion expressed that there is no one form or type of treatment for every case. It then becomes essential that we pursue our studies and secure individual enlightenment as to the indications that determine the proper mode of treatment in order that each case may be subjeced to the method that is clearly indicated. This calls for a diligent study of the literature. It is this study that we wish to inspire and urge by the suggestions and comments that are advanced in this editorial.

APPENDICITIS

While it is true that for the past ten years or more the literature upon this subject has become voluminous and that practically every medical journal publishes and publishes reiterated theories, opinions and conclusions, the end results that are being obtained do not justify stating that the problem of treatment is solved. Dr. Randall, in a very interesting paper published in this issue, presents anew the problem that still confronts us—the mortality of the disease. Until our compiled records reveal that the average mortality is reduced by at least 5 per cent we cannot announce that further discussion of this subject is superfluous.

Certainly the diagnosis of the disease requires but little further emphasis. Except in very exceptional cases, we believe that the average, and also the mediocre man, should be able to make a correct diagnosis. To fail to do so is due to either superficial and careless examination with failure to secure a detailed history or, a total ignorance of the nature of the characteristics of this disease. Delayed diagnosis is possibly excusable at times because of the demands made upon doctors in sparsely settled regions and their inability to see the case again within 24 hours. Even then we do not believe that a delay of 24 or even 72 hours need inspire the conclusion that proper surgical interference will invariably be followed by death of the patient. Our present day mortality is not solely dependent and based upon the above mentioned factors. We are more inclined to the opinion that a mortality of 8, 10 or 12 per cent is not due so much to delayed diagnosis as it is to the technic and judgment, and also the skill of the operating surgeon. The death of a patient suffering with acute appendicitis is attributable in the vast majority of instances to two causes—refusal of the patient to submit to proper surgical intervention and second, to operations performed by incompetent surgeons. The skilled surgeon will lose a case now and then in spite of every precaution, the exercising of the best judgment and the execution of the most perfected technic. His mortality will range between 1 and 3 per cent. The mortality of the occasional surgeon will run as high as 20 per cent. That is the personal factor that is responsible for the higher and increasing mortality of the disease. It is not pleasant to record that conclusion. It is the conclusion that cannot help but be drawn by one who closely observes and studies the causes of death in definite instances.

We know of men who have not met with a higher mortality than ½ of 1 percent for a period of 15 years. They have had their share of perforated, gangrenous, retrocecal, abscess, and complicated cases and still maintain that low mortality, by reason of the skill they exhibit in the surgical technic that they execute. On the other hand, another man with a similar type of cases operated upon almost exactly similar conditions will, by reason of faulty judgment and technic obtain a mortality, shall we say, that is unjustifiable.

Dr. Randall is to be commended for drawing our attention to the present average mortality of appendicitis. We appreciate the end that he seeks by raising this question and we are sure that he desires to stimulate serious reflection on the hope that we may see the light. Naturally he refrains from pronouncing condemnation upon incompetent operators. Had he done so he would have been criticised and accused of egotism. We too, have been somewhat hesitant in frankly setting forth the real reason for the high average mortality. Nevertheless, we have felt that the burden of doing so was clear and that we could not shirk that responsibility. In order that we may not be misunderstood permit us to recapitulate: A greater than 4 per cent mortality in appendicitis is due to: First, refusal of the patient to submit to proper surgical interference; second, failure to make a diagnosis and this is due to the ignorance or carelessness of the medical man or surgeon called to attend the case. In doubtful cases complete examinations have been neglected or proper counsel has not been called, and watchful waiting was continued too long; third, inferior surgical judgment, technic and skill on the part of the man who operated. And of these three we feel that the most frequent cause is that of deaths resulting from inferior surgery.

The man who had no deaths is not being

called upon to operate for the removal of diseased appendices. The best man must and will have some mortality following his surgery. However, his average the year through will be within an acceptable percentage. The man whose mortality is far greater than that acceptable percentage needs well to revamp his policies in the handling of this class of his cases.

In the end then, it is incumbent upon every surgeon who attempts to or does operate upon cases of appendicitis to seriously reflect upon the mortality he is encountering and to realize that an excessive average is directly attributable to himself and cease salving his conscience by concluding that it is due to other factors and "bad luck." In proper hands the average will be lower than that imparted by Dr. Randall. It will not become so until we all recognize the factors that make for the high average and then govern ourselves accordingly. We do not purpose stating who is or is not fit to operate; that question must be answered by each operating individual. You must pronounce and execute your own sentence and you will if you are a man.

"BRITISH HEALTH TALK"

In the New York Times of Sunday, September 18, appears an article entitled "British Health Talk"—a lecture by Sir James Cantile, one of England's foremost medical authorities. This lecture has attracted widespread interest and has appeared in many of the leading English newspapers. He calls his lecture one on health-helig-holiness. He asks the question—"What Is Health?" but states he cannot answer the question.

Contrary to the accepted idea that we received as a result of the war—i. e. that the English race was below par physically—he states that British children, be they of country or town, poor or rich parents, were almost as a rule excellent specimens.

The staying power of a horse is the matter of inheritance, and so it is with the child. Food is the essential thing. He is not much in favor of artificial feeding; next to mother's milk, he seems to favor the foster-mother or wet nurse. He relates the case of a large family where part of the children were raised on the bottle and the others by a foster-mother. The results were all in favor of the foster-mother. He shows distinctly the disadvantages of bottle feeding; especially does he mention the fact that when the child is born it has all its fifty-two teeth in the gums. The surfaces of the gums are scalded and kept in a state of irritation by the use of the bottle and rubber nipple. This results in depriving the gums of their proper nourishment, causing them to decay early. Even the permanent teeth are affected.

We cannot rear a healthy nation on rotten teeth, and he makes a strong plea for a national inquiry along this line. The idea that brushing the teeth and eating hard biscuits in order to save them is "tommyrot" to him.

He says: "Really healthy persons should never have to brush their teeth." This, of course, is contrary to the everyday practice, such as tooth brush drill in public schools and advice given by our dentists.

Then he discusses the question of clothing, and states that the clothing for children especially should be one pound weight of clothing for every stone weight of body as a standard.

His remarks relative to corsets are interesting. He states, "during my practice in the tropics I found that women had fewer liver inflammations and that I operated on many men for liver abscesses, but never once on a woman, and I attribute the fewer abdominal troubles in women to the even temperature maintained by the corset." Another example, the kilt of the Highlander as a cause of fewer abdominal troubles than in other regiments.

He calls attention to over-indulgence in so-called sports. Especially does he condemn the long distance swim. He warns young men between the ages of 18 and 25 years not to over-do in any sports, such as rowing, bicycling and running. During the war he was surprised at the number of men between 40 and 50 years who were rejected because of heart conditions, varicose veins, etc., who confessed to over-indulgence in the above mentioned sports when younger.

Summary: He calls attention to three things as being necessary:

1. A greater care of teeth, especially as regards the use of the nursing bottle.
2. That the corset is an advantage to women, at least in tropical countries.
3. The bad results of over-indulgence by young men in so-called sports.

—W. J. STAPETON.

SURGICAL JAZZ

(Submitted with some hesitation. Time, the present. Location, in one or more offices or practices in numerous localities).

Prologue

Centuries have passed since the Hippo-

cratic Oath was first formulated. Down through the march of time it has been the sacred guide of all followers of Aesculapius. Then came the world's upheaval, and war, shall we say, warped the integrity of many men in all avenues of life. Commercialism imbued the many. It wrapped its tentacles about and ensnared the men of medicine. Lest we forget, once again do we repeat the "Oath" that should motivate you men whom we acknowledge are the descendants of that first physician of Man; and call upon you to note well the course that you pursue.

The Oath

I SWEAR by Apollo the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses that, according to my ability and judgment,

I WILL KEEP THIS OATH and this stipulation—to reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required, to look upon his offspring in the same footing as my own brothers, and to teach them this Art, if they shall wish to learn it,

WITHOUT FEE OR STIPULATION and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath

ACCORDING TO THE LAW OF MEDICINE but to none others, I will follow the system of regimen which, according to my ability and judgment, I consider

FOR THE BENEFIT OF MY PATIENTS and abstain from whatever is deterious and mischievous, I will give no deadly medicine to any one if asked, nor suggest any such counsel, and in like manner I will not give to a woman a pessary to produce abortion.

WITH PURITY AND WITH HOLINESS I WILL PASS MY LIFE AND PRACTICE MY ART.

I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; AND FURTHER from the seduction of females or males, of freemen and slaves. Whatever in connection with my professional practice or not in connection with it, I see or hear, in the life of men, which ought not to be spoken of abroad, I WILL NOT DIVULGE as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the Art respected by all men in all times!

But should I trespass and violate this Oath, may the reverse be my lot!

Scene 1

Good afternoon, Mrs. Jones, I am glad you telephoned you were coming for I was just about to go out on a call to Mr. Drof's home to see his son who they think has an acute appendicitis. O, no, I am only too glad to spare the time right now, I would not think of cancelling your appointment. Yes, very busy, in fact I am almost completely fagged out. I am compelled to turn down numerous calls. Why, this morning they wanted me to come to Tnilf to operate upon Brewster's son, who they report has a fractured skull. I did feel that I should not be out of call of several very sick cases in the hospital. Then, too, if I had gone I would have had to disappoint four patients, who I scheduled for operation this morning. Humph, pain in your right side and you say you never had it so severe as to cause you to go to bed, you have never vomited during an attack, nor been nauseated, the pain comes on most usually at night time and never bothers you in the morning, and is never sharp nor has it been general throughout the abdomen? Humph! Just lie down on the couch a moment, no you need not loosen the clothes. It's right here that you feel the pain, but don't feel it now and haven't had it for three months except last night, after that long walk you took? Humph. Why, Mrs. Jones, you are one woman in a hundred and you sure may count yourself lucky that more serious complications have not developed. I can't see what Dr. Son was thinking of when he failed to give your condition more serious attention. He certainly failed to recognize that your appendix was involved. I often wonder how some doctors can continue to repeatedly fail to recognize diseased appendices. I have seen over six hundred cases and confirmed my diagnosis each time at operation, but it is experience with large numbers of cases that enable one to make accurate diagnosis. No, my no, there is no question but what that is your trouble. You have a concealed bomb in your side that may explode at any moment and set up a fatal peritonitis. Mercy, Mrs. Jones, do not think of trifling any longer, you must be operated upon just as soon as we can make arrangements. Oh, yes, I do the operating, you know that my practice is all surgical. I am operating every morning and really, Mrs. Jones, I am surprised at my results, I am not ashamed to put my cases alongside with any great surgeon. Why, two months when I visited Oyam at their invitation and told them at dinner one night my results, they admitted my record equalled theirs. Now listen, I'll take you home in my sedan, (Dodge) and then you can lie down until Mr. Jones comes and you can tell him what I have told you, then when I return from my calls I will drop in about 9 o'clock and take you

in my sedan to the hospital and we will operate the first thing in the morning and have it over with. I wouldn't think of letting you wait one day longer. Oh, no, don't worry about your heart, it certainly is in good condition, because you have had no pain referred to it and as far as your lungs are concerned, why, Mrs. Jones, you are foolish to worry, leave all that to me. Now not another word, come, we will start now. Exit. (Note: The doctor has his way, the operation is done, no further examinations are made, a perfectly normal appendix is removed, recovery ensues and Dr. Jazz has another successful appendectomy chalked up. Dr. Jazz, by the way, collects $150, he is no fool and has some ability).

Scene 2.

Wont you have this chair? Yes, I am Doctor Murphy. Oh, yes, Mrs. Ames, I remember her well, her's was a most difficult case in which our operation was very successful, after the several failures she encountered from other hands. So she recommended you to come to me? Is that so? And this is your little girl Marion? My, what a sweet, dear child. How happy you must be to be the mother of such a bright child. Only seven years old, gracious what a lovely daughter, and so refined in her looks. Worried, are you about her, now tell me and be sure I will be very frank and truthful with you. Never missed a day at school, taking music lessons, umph, and dancing lessons also, and studying her part in the amateur rehearsal at the Parish house and to the movie only two nights a week and lately she seems to be tired all the time, and complains that she has a funny noise in her ear? Well, well, we will have to look into that. Now, Marion, just sit up in this chair and turn your head this way. That is a sweet girl. Goodness what beautiful curls. Umph, a white glistening ear drum, no bulging. Nurse, have Dr. Lab step in to make a white count. Now mother, don't worry, we simply must be thorough in our examination in order to tell what the real condition is. When did you notice this swelling in front of her ear? Yesterday, and you say she complained of this pain while eating and screamed when she ate an orange, well, that complicates matters. Excuse me a moment. Nurse, please take Marion's temperature while I see the Senator in the next room. (Interval) Now mother, Dr. Lab reports an increased white count, Marion's temperature is 100.6, the symptoms are all clearly indicative of mastoid involvement. She must go to the hospital at once and have a mastoid operation. Yes, it is a serious operation, but it must be performed without delay, because you know there is but a thin plate of bone, not more than a sixteenth of an inch thick between this diseased area and the brain, and if this pus burrows into the brain, a fatal meningitis will ensue. Of course it is a very delicate operation, because I will be working so close to the brain, but you know I will be very skillful and careful and we will hope for the best. Nurse, call up the hospital and tell them that I am sending in an acute mastoid and will operate at 5 o'clock and also phone my wife that I will be delayed for Banker Perkins' dinner on account of an emergency operation. Exit. (The operation is done, a normal mastoid is drained. Marion convalesces with a complication of parotiditis which the doctor records as an unusual complication in his next paper on 500 Mastoids. This Dr. Jazz also collects a bill, but it is one for $550 and so he rides in a Baker Sedan to Perkins' dinner party).

Scene 3 and 4

(These are omitted in this Surgical Jazz play because they depict the preliminary Jazz strains of a thyroidectomy in a girl of 17 and of a gastro-enterostomy for alleged gastric ulcer so diagnosed upon the symptoms that are typical of a gastric crisis. The Jazz theme prevails with varied expressions, cresendos and profundos).

Epilogue

Thus midst rapidly changing scenes that mark the progress of the play the Jazz spirit stands forth trespassing in upon the sacred precincts of the disciples of medicine. It is revealed in the travesty that is enacted by men whose integrity and honesty have become warped by their quest for wealth and whose ego is well nigh super-exaggerated. As their wealth increases their respect becomes doubly calloused. At the roadside the honest doctor pauses as they pass, and ponders in sadness upon the baseness of human deceit and marvels at the stultifying influence of the Jazz spirit. The relentless critic travelling along the by-paths and deserted lanes, notes here and there the wrecks and Jazz-operated individuals who continue to exist midst physiologically altered bodies that are now life's burden and trial to the Mrs. Jones and Murphys who were hypnotized and fell under the opening strain of our present-day surgical Jazz. And you wonder why the Pathists and Practics multiply before us! The vision is not granted us to depict the

end of the present day surgical drama. Ere the curtain falls the opportunity still presents for these sinners to repent. The faithful still hold high the torch and as they fall they fling the torch of Truth. May the out-stretched hands increase in number to seize it and wipe out these syncopated-surgical-Jazzites!

Curtain.

(Editor's Note: The above was submitted by a layman whose business and civic relationship bring him in frequent contact with the profession and its activities. Space is given to this observation because we realize that there is a reason for what he has written. It also is a thought that merits our serious consideration.)

"ADVICE FROM THE JACK PINES"

More than forty years a physician.

Part of this in the big city; balance in the country.

Some of it in the east, some of it in the west.

Buy books, read and take journals.

Not tied to the business, can make my simple living otherwise.

Not any man's competitor. Take pleasure in seeing some other M. D. get the mean ones.

Don't care for much business, rather stay at home and read what other doctors are doing.

Have no one out plugging for me, rather tell them I don't wish to go.

Know plenty about modern equipment, but mine is very crude.

Can't afford better, my patients are not rich.

But they come a long ways to see me, always pay and say "thank you."

I like to take care of such. They know me, I know them, and they think they need me.

But, Say, Doctor, there is another class, and many physicians are running after them, catering to their crookedness and making them worse.

And one fool doctor can make the rest of the profession lots of trouble.

Two doctors down on the corner glowering at each other over a case of midwifery. Both have their little black undertakers' outfits with them. already for the flag. One of them sent word to them yesterday that he would take the case for fifteen dollars. Gee, that man engaged me over a week ago. I told him I did not want more obstetrical cases. That my price was twenty-five and extras and spot cash. He said "O. K. Doctor, here is fifteen dollars on it and we shall expect you." When I go to that case they will use me right, the case will be in my hands, and I will come home with my money and no bad taste in my mouth.

"A little with content is much
To those who'll rightly use it
Who'll take it as the Lord has sent
And then docs rightly use it."

Say, Again, what do you think of those summer resort doctors, who come up into the woods every summer and queer the local doctors' business. Some of them act as though they were shy of business at home. After the long hard rides over almost impassable roads, maybe miles between houses to take care of the needy, to bring them through the winter and get them on a paying basis it don't look right for some old dope-fiend specialist to come up and board around and go back with what little money the doctor has helped them accumulate, leaving a community full of instructions about the use of strychnine, nitro glycerine, pituitrine and a few other simples.

On my shanty door is the notice: "If the patient has the right to choose his physician in the summer then the doctor has the right to choose his patients in the winter." That settles it.

Yes, I am a poor man. Have to be or I could not know these things.

And now comes the Rev. John Doe, M. D., who tells the laity that doctors are charging too much. He also tells them that the society has appointed a committee to make a new fee bill. And possibly so. Can't tell what these way up fellows will do next. Get a lot of city pracs, who get from five thousand to ten thousand for an operation that many a country prac could do better, get them to say that a dollar is enough for a house visit, fifty cents for a surgical dressing, seventy-five cents for office consultation, examination, blood pressure, urinalysis and medicine. I get three dollars for a house call, one dollar a mile, no out trip less than five dollars. Twenty dollars for twenty miles, and they pay it without whining. If they whine or put up that little sad cough, I never go again, and by the way lots of them are getting over that cough. But when I go I try to earn my money. I hardly ever have to make the second trip. Yes, sir, and most of them get well.

Low mortality rate is what we should aim at. If we have a remedy that worked promptly forty years ago and will do so yet, we use it. If a man has a fish bone in the throat, I try to get it and read about the blood count after I get home.

And I don't talk so much about medicines as I used to. I never leave a lot of medical advertising stuff around the floor or desk at the post-office. Nor do I leave it upon the office table for public reading. I try to do what is necessary and my own way.

Forty-three years, Doctor, and a failure in many ways. But my patients get well and they make long drives through the woods to see me.

Confinement cases, how I dread them, but in the houses of my friends it is so much easier; I go for such people. But I have never lost a mother yet, nor a child that was alive when I got there. Bull head luck. Must my turn come? Not if I quit. What you going to do? And some doctors are writing that the doctor is making too much money. Not one of those fellows would do my work one week. And there are thousands of other doctors who can relate the same kind of stuff. Thank You, Doctor. I say that to you as others sometimes say to me. But you are only part right on that therapeutics matter. It's a matter of judgment, knowledge, experience and study of each case by itself. For seventy-five cents???

A few months ago serum and vaccines were more popular with our patients than at present. Are we sure that we are getting the results we expected from them? Our patients do not think so. When we lance a boil and give immediate relief, we make friends for our profession, but some people do not take kindly to experimental work. What is "Empiricism" anyway. I guess it's what the other fellow does. Results count more in medicine than in any other line. Again, I learned a great deal about modern medicine from Vaughn's excellent article upon "Sensitization." There is a warning in that we may do well to heed. Many of these things have been proven safe and useful, but what's the laboratory for? Surely some great discoveries have been "untimely ripped." And some are doing things without due knowledge.

Now here is one—A little boy was ill. His father took him to the office of two good physicians. They

correctly diagnosed the case Diphtheria, and administered a full dose of antitoxin. Then the little fellow walked home, a distance of five blocks. In half an hour he was dead. Do we get enough of the practical in the class room?

No one has better knowledge of human nature than the observing physician. He knows there are many good people in this world and about as many perverse ones.

Many of those who are talking about doing so much for the public are planning to do them.

The best place to do good is right in the sick room. That's the place to think, but not to tell them all we think.

For six months in the year up here there is not business enough to keep the doctor from thinking. The balance of the time the roads are so bad he has lots of time to think, going and coming. I think we have a lot of good physicians in Michigan and if the public will do as well by the medical fraternity, as it is doing by them, we shall not need any more bureaus or commissions.

You are putting up a good journal. I like it best of all, and I am called a crank upon medical literature.

No, Doctor, I don't talk this way to other folks, not even to physicians. But no one else will say these things to you, and you know enough of the medical situation to read and not be impressed detrimentally by it.

Now, here is another one. How shall we stand in the eyes of the people? It costs a doctor money to keep up with the advance in medicine. The impression we make may count more than some imagine.

I gave him a pretty thorough exam. Way better than he had ever received before. I gave him seven tablets, one every day after dinner. I had every confidence that they would help him. They did. I charged him $3.00 first time, worth the money. He was pleased with results. But this time I gave him a good look over and gave him seven more tablets. As he prepared to leave, he asked: Oh, Doctor, how much for these little tablets, and as he spoke he held out his hand, and in it I saw about thirty cents in pennies and small change. How. Why, the first time I also gave him a four-ounce bottle of gentian solution. I should have done so the second time, for he was not one of my regular patrons, but a sort of transient.

In time our regular patients will learn the real value of real treatment.

Any way Doctor you are not likely to get much of this stuff from me for do you know, I am getting old, one of my outside patients said so the other day, and I very promptly told him not to fool himself with the notion that I was too old to charge.

JACKSON COUNTY SOCIETY CLINIC

The Jackson County Medical Society held a clinic at the W. A. Foote Memorial Hospital on Oct. 17, 18, 19, 20, 21. Unusual public interest was aroused and cooperation of the press secured by the novel plan of giving an open forum meeting for the general public on public health problems and furnishing medical men as speakers for the various noon luncheon clubs of the city continuing through the week. The program was as follows:

MONDAY, OCTOBER 17

9:00-12:00 and 2:15-5:00—Internal Medicine—Dr. C. G. Jennings, Dr. P. F. Morse, Detroit.

7:00-9:00—Dr. Theodore McGraw, Jr., Detroit. Subject: The Relation of the Endocrine Glands to Body Growth.
Lantern slide demonstration.

TUESDAY, OCTOBER 18

9:00-12:00 and 2:15-5:00—General Operative Surgery —Dr. M. M. Percy, Chicago, Ill.

WEDNESDAY, OCTOBER 19

9:00-12:00 and 2:15-5:00—General Medicine—Dr. Mark Marshall, Ann Arbor, Mich.

THURSDAY, OCTOBER 20

9:00-12:00—X-Ray demonstration, lantern slide—C. W. Crane, Kalamazoo.

2:15-5:00—Eye, Ear, Nose and Throat Diseases from the Standpoint of the General Practitioner—Dr. Royal S. Copeland, Commissioner of Health of the City of New York.

5:30-7:30—Dinner, Physicians and Ladies at "Meadow Lark."

8:00-9:30—Open Forum at West Intermediate School —Dr. Royal S. Copeland, Commissioner of Health of the City of New York. Subject: Modern Public Health Problems.

FRIDAY, OCTOBER 21

9:00-12:00—Orthopaedic Surgery, Clinical—Dr. W. E. Blodgett, Detroit.

2:15-5:00—Gynecological Surgery, Operative—Dr. C. Barrett, Chicago, Ill.

As far as known this plan has not been tried out before and it was a complete success, all specialists attending expressing themselves as delighted with the scheme. The management of the hospital gave wonderful support in every department and donated beds free for 24 hours which gave the visiting physicians an opportunity to classify and arrange the work the day before the cases were to be presented, making the handling of large number of cases a much easier task and admitting of closer study of the ones presented. Full and complete case histories were prepared by the attending physicians in advance which also proved a time saving element.

Physicians' office hours universally adopted by the Jackson physicians were 1-2 p. m. and 7-9 p. m. such evenings as were not taken up with the evening sessions. Considerable interest was shown by medical men outside of Jackson County, and such as were fortunate enough to come the first part of the week, returned for the balance of the session.

One gratifying feature of the plan was the attendance of men not members of the society. These men made application to join after they observed the class of work turned out and the fine instruction the attending medical men gave.

Leading up to the week's clinic, the so-

ciety gave a series of monthly one man evening clinics the first months of the year. These were very satisfactory and instructive and assured a large attendance of members.

The summer months, during which no clinics were held, were livened by a field day and picnic at Mack Island which helped to keep up interest in the society and assisted materially in starting the fall meetings off with plenty of pep and a fine spirit of co-operation between the members of the society and their officers who are as follows: E. S. Peterson, president; H. A. Brown, vice president; L. J. Harris, treasurer; T. J. Hackett, secretary.

Rhoda Grace Hendrick, special reporter.

Editorial Comments

The old saying about never prizing the music until the fair sweet bird has flown is apropos about more things than song birds. We have all fallen into a more or less vicious habit of looking off into the distance for things that are new or exemplary of modern progress and the application of modern methods. We fail to see that which is equal and in some respects superior than that found at the distant place, at our very feet and door steps. We spend time and money travelling to distant places and clinics when those that are within the boundary of our own state and which can be reached within a few hours' travel by train or automobile are passed by. Visiting foreign or distant clinics is commendable providing we also profit by what can be obtained at our home or rather state clinics and institutions. Recently we have gained more information, secured more practical points and derived greater benefit at an expenditure of less time and money than was obtained at some of the larger centers in this country, during a series of visits to several clinics and hospitals in Michigan. We recommend that our members look about them and try the same experiment that we made. You will be most agreeably surprised. We also suggest that some of our institutions, hospitals and clinics in Michigan make a dignified effort to acquaint the profession with the work that they are doing. Such a program will be conducive to increasing the solidarity of the medical fraternity in this state.

The old word "duty" is not heard a great deal of late. It is looked upon largely as a relic of stuffy times, now quite out of date. It smacks of preaching and many there are who detest that method of exhortation. It is much more exciting to forget all about duty and go sailing up in the air in pursuit of all sorts of iridescent altruistic rainbows than it is to stand right on the ground and "Do the first thing next." Many are like the man writing a treatise on social economy who died of typhoid fever as a result of filthy drains under his own house which he neglected to have cleaned. When you go out of your way and beyond your duty, having first performed it, in the service of your own people and your Government, and when it costs time, money, labor and perhaps physical suffering to do so, you may aspire to the noble name of patriot. There are not so many. After all the advice that Sherman gave to the young man who came up to him and stated that he wanted to know where he could join and fight and was told "Step right into line anywhere. There are a lot of places to fight in almost any place along the line"—is applicable to many conditions that confront us today. The vital point is, are you willing to assume the performance of your duty. You can start in at almost any place and find plenty of opportunity to acquit yourself. Think it over.

Our Journal is made possible only because of the patronage we receive from our advertisers. If it were not for these advertisers it would be necessary to increase our dues $5.00 per member to cover the cost of publication. It therefore devolves upon each member to do his part in maintaining these advertisers by giving them their patronage. How many of you answered the ads in our last issue and how many of you are going to answer the ads in this issue? Many of them offer to send you useful and valuable literature and samples. Write to them.

A conference of State Secretaries, Public Health Officials, Welfare Organizations, Social Workers and the several standing committees of the American Medical Association will be held in Chicago during November. The end sought is a program of concerted organized effort to advance the profession's welfare and to accomplish the education of the public in regard to the problem of public health. We hope to be able to impart in our next issue the plans that are to be developed during this coming year.

Don't hate your competitor, hate is expensive. Get acquainted with him. You may learn something. Don't knock your competitor. It sounds bad and is bad. Be a good sport. Play the game. If your competitor lies about you, or uses underhand methods to harm you, don't worry. He is cutting off his nose to spite his own face. He cannot fool all the people all the time. Straight business and good nature win out always in the long run. Your competitor will do you a great deal of good if you keep your eyes open. He will keep you from slumping. He will make you energetic, careful, more attentive to business and altogether will be a good tonic for you, if you know how to use him.—Dr. Frank Crane.

To carry out an operation correctly, a few mnths' study is sufficient, while to decide on the indications for operation one should have a surgical experience of years.

The social-service department of a hospital should function as the X-ray department does—not as an independent agent, but as a part of a team under the direction of one guiding mind. The facts elicited by the social worker's studies, talks, and visits should (like X-ray data) be pooled with the data of physical examinations, laboratory findings, etc. Then they are appreciated and of value; not otherwise. So with her educational therapy. It will often go wide of the mark, unless supervised. To turn a patient over to the social-service department once for all is a common but wholly mistaken practice.

The pages devoted to the publication of the letters received from our members who thus impart their views, reflections, experiences and their position in regard to scientific matters and medical economics should be of especial interest to all our

members. Once more do we urge that you utilize this department of your Journal. Our readers, we are sure, will appreciate the viewpoint and comments of others. While your Editor attempts to record a tempered medium we are all interested in reading the conclusions of those who incline toward extremists.

We realize the values of autopsies. We know that properly conducted they will convey much that is of value to the men who study their cases. They will supply much that is of important value to the discussion of medical subjects. Recognizing then the value of autopsies the problem confronts as to how more of them can be secured in the practice of men who are not connected with teaching hospitals and those who are away from the larger medical centers. We would like to publish the views of our members and have them enlighten us all as to how we may secure more autopsies. May we not receive your constructive suggestions?

Numerous and complex relationships have been noted between the functions and structures of the various endocrine glands. The normal sexual functions are largely dependent upon a normal condition of the other internal secretions. Lack of sexual development and absence of secondary sexual characteristics occur in cretinism and in certain pituitary diseases such as Frohlich's syndrome. Menstrual disturbances may acompany thyroid disease in women. Sexual precocity has been noted with pituitary disease, pineal tumors, and adrenal tumors. The pituitary gland enlarges after thyroidectomy and during pregnancy. The adrenals enlarge during experimental hyperthroidism, and many symptoms of exopthalmic goitre indicate a stimulation of the sympathetic nervous system, such as might result from the excessive liberation of epinephrin from the adrenal glands.

Such complex inter-relationships, of which we have named only the best established, often make difficult to determine which gland is responsible for certain symptoms in diseases of the endocrine glands. Consequently in this day when glandular therapy is receiving so much consideration it becomes very important that before a given glandular product is prescribed that a careful effort shall be made to definitely, as far as possible, determine just which internal secretory gland is involved. Such determination is essential for intelligent therapy.

Crile, in a recent article, states that in some 6,100 operations his mortality was 1.6 per cent. That is a splendid example of surgical skill and judgment. It demonstrates surgical ideals and possibilities. It represents years of hard, painstaking and studious work. It characterizes surgical mastery. It is not given to all of us to be permitted to work under conditions and with the surroundings that exist in the Lakeside Hospital at Cleveland and thus have available such ideal conditions. However, it is possible for us to strive continuously to attain as near as possible those conditions, exhibit similar studied diagnostic skill and perfected execution of surgical procedures. By so doing our mortality percentages will lessen and we will have come that much closer to the ideal. We cite the incident merely to awaken a spirit of ambition for better surgery.

Just why we should find it necessary to continuously remind our members of the need of patronizing our advertisers is difficult to explain. We have often stated that without these advertisers it would be impossible to publish The Journal. Just as soon as we let up in making these reminders we receive cancellation orders from advertisers because they are obtaining no results from their copy. So again we repeat, patronize our advertisers. This issue contains two new firms who merit your patronage. They are placing their copy on trial. Unless they obtain results their contracts will be cancelled. It is up to you to see that they are satisfied with the returns. This is true not only of new advertisers, but also of those who have been using this space for years. Send for their samples and literature. Do it today. Help us to thus defray publishing expense and give you a better Journal.

"The pulmotor was used." Every now and then we see that statement in connection with the resuscitating measures mentioned as having been employed when a patient is in extremis. We cannot help but wonder when some will realize that the pulmotor is obsolete and even considered as taboo. In a recent questionaire sent out and published in the West Virginia Medical Journal in answering the question as to what might be considered as obsolete, several mentioned the pulmotor. The answers came from noted internists and surgeons of this country. It is confidence and time wasted to employ a pulmotor. There are other more valuable methods.

Your stationery, letter-heads, bills and cards, may create favorable impressions or the contrary. We have realized for sometime that the prices quoted and which our members pay have been consistant with the tendency to get all that is possible. You have, no doubt, been paying your printer an overly handsome profit. To enable our members to save on this expense we have been able to secure practically cost quotations. We have arranged so that you may benefit thereby. We refer you to the announcement and order blank in our advertising section. If you want to save money, here is an opportunity.

We are pleased to see a state-wide manifestation of interest in society work. Excellent programs are being put on by the society officers. This represents much effort and labor on behalf of your county society officers. Effort that is often appreciated in a matter of fact way. Little thought is given to the work that is done in arranging these meetings. You cannot expect your officers to continue with enthusiasm unless you demonstrate that you are appreciative of the time they are contributing. The least that you can do is to make more than an ordinary effort to attend the meetings and participate in the discussions. It is to your personal interest and profit to do so. Incidently a word of appreciation and encouragement will maintain their enthusiasm.

We congratulate the members of Jackson County on their splendid program and society activity. What they have accomplished can also be accomplished in other counties. It is such effort as this that strengthens organizational interest and tends to cement fraternal relations.

COMMUNICATION FROM THE LEGISLATIVE COMMITTEE

It might be well for us to stop a moment in our mad race for big things to ponder on the question raised by Thomas Huxley at the dedication of the

Johns Hopkins Medical School in 1876. That speech comes home to us today with peculiar meaning and it is well worth reading and re-reading. Thus spake Thomas Huxley, the gallant apostle of truth, the whole truth and nothing but the truth, forty-five years ago:

"Do not suppose that I am pandering to what is commonly understood by national pride. I cannot say that I am in the slightest degree impressed by your bigness, or your material resources as such. Size is not grandeur and territory does not make a nation. The great issue, above which hangs a true sublimity, and the terror of overhanging fate, is what are you going to do with it? As the population thickens in your great cities and the pressure of want is felt, the gaunt spectre of pauperism will stalk among you and communism and socialism will claim to be heard. I cannot understand why other nations should envy you or be blind to the fact that it is for the highest interest of mankind that you should succeed; but the one condition of success, your sole safeguard, is the moral and intellectual clearness of the individual citizen."

If we are fighting today with our backs to the wall to prevent the socialization of medicine and the degradation of the individual, it is because in our race for bigness, we have permitted our moral and intellectual clearness to be befogged. As individual practitioners of medicine, we have boasted of our great national organization and its great Journal. We took pride that the A. M. A. was worth almost a million dollars in quick assets and that the income of its Journal was reaching toward that princely sum of one million dollars for one year's income. We bragged that our association numbered its members by the thousand but we forget to ask Huxley's pertinent question, "What have we done with it?"

When we cast up accounts, our pride is due for a hard fall.

We have permitted our great national organization to become the plaything of "paper philosophers," men too rich or too tired or too lazy or too ambitious to tread the thorny path of the practice of medicine; men who prefer the job of telling us what to do, to doing it themselves; men who chafe at the long, tedious apprenticeship of the physician and surgeon, but prefer short cuts to positions under various names; men whose sole aim is to sit on a throne, directing and controlling a horde of medical slaves who are to do all the work, take all the responsibility but to pass up the rewards. And all of this has happened, because we have been too busy growing big to be sure that we were growing just. We gave these men power and like Oliver Twist, they wanted more. It is a human failing, for all men are potential despots at heart.

We have seen our good money paid out in salary to an avowed apostle of Compulsory Health Insurance by the Council on Health and Public Instruction of the A. M. A., at the bidding of a chairman who was a shining light in the councils of the American Association for Labor Legislation, sponsors for the socialization of medicine. And we were asked to accept the report of this apostle and his brother of the A. A. L. L. as being disinterested.

This year, we were treated to the spectacle of a leader of the A. M. A., a gentleman who has been a power for years in shaping the policies of the A. M. A. and its Journal, appearing before the House of Delegates to repudiate a speech, favoring Compulsory Health Insurance, which he had made some time ago and which had been printed in the Journal of the American Association for Labor Legislation. He did not claim that he had not been fairly reported but now that he was a candidate for re-election as Trustee and the A. M. A. had gone squarely on record as opposed to Compulsory Health Insurance, he wanted to take it all back. A man has a right to change his mind but to the disinterested observer, that change would have been in the better taste, if announced at a time, when the candidate was not looking for votes.

And to add to the strangeness of the situation, we found men who were openly favoring "State Medicine" on the score that it means bread and butter to them, jumping in to back up this candidate who was recanting the very opinions his backers were favoring. These Public Health Officials waxed indignant as they denounced the men who had brought out this speech of the candidate's favoring socialization; they called on the House of Delegates to try them for treason and to boil them in oil, if necessary. And what had these men done who were being thus roundly abused? They were simply trying to find out whom this candidate would represent, if elected. He had preached Compulsory Health Insurance in the A. A. L. L. Journal and the question of moment was, will this candidate, if elected, represent an interlocking directorate of the American Association for Labor Legislation and the A. M. A., or will he represent the overwhelming majority of the medical profession who are opposed to the measures for which the socializers of medicine stand?" The candidate was elected after a hard fight. Time will tell but vigilance alone will be the price of knowledge.

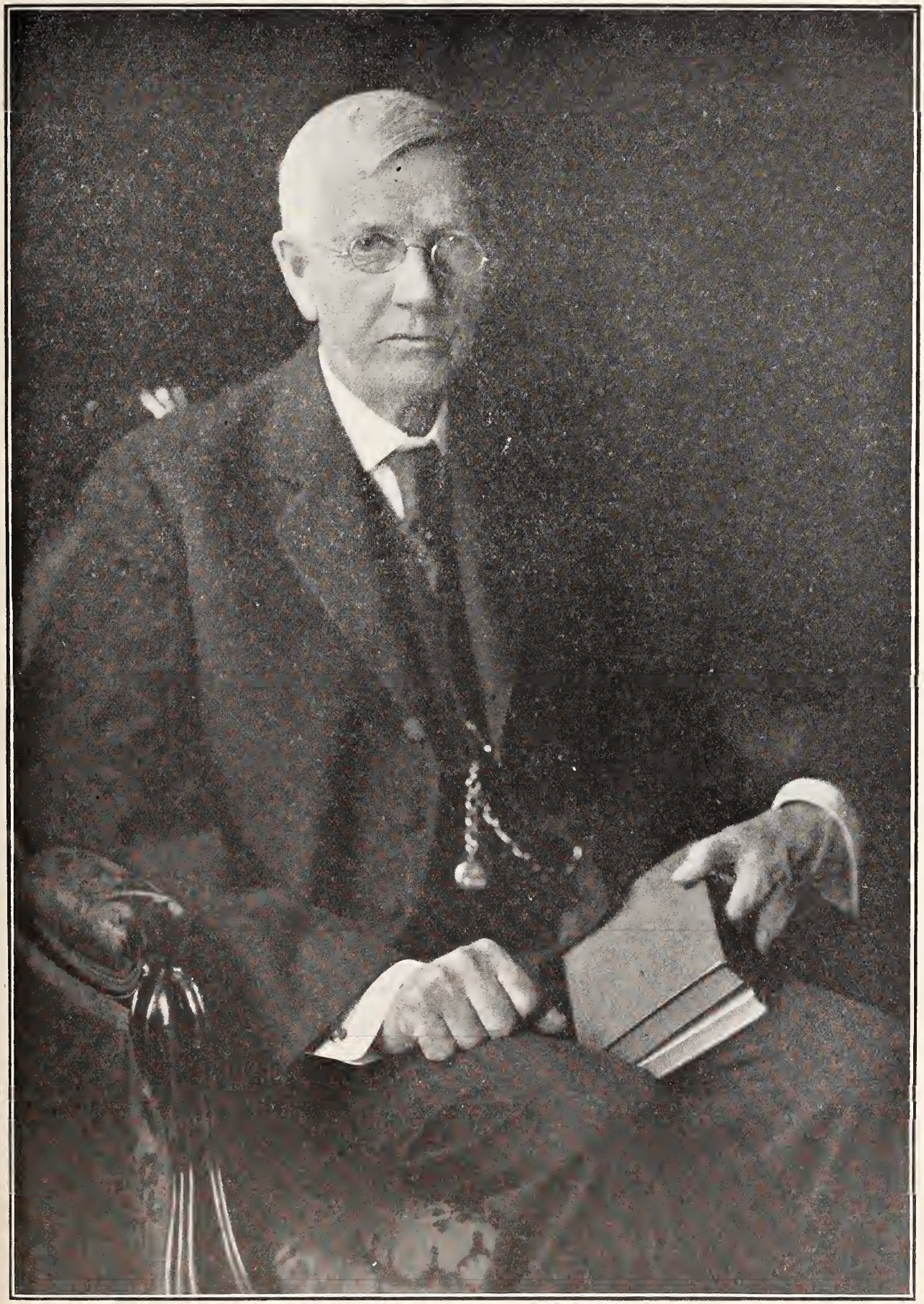
We have lived to see Johns Hopkins fix a fee for a week's care by a physician at $35. A salary which many a taxi driver will scorn. All these things we have seen and the question is, what are we going to do with it? That no man shall be able to plead ignorance of existing conditions, is the purpose of the Bulletin. The profession must fight. If necessary, take a beating and fight again. Our socializers hope to tire us out but once we drive them into the open, take from them their brazen shields of wealth, position and reputation, behind which they are hiding, then and only then, will the overwhelming majority who pay the freight come into their own again and the A. M. A. represent the physicians of this country and not be the mouthpiece of our "Paper Philosophers."—Bulletin of Wayne County Medical Society.

Deaths

DR. THEODORE McGRAW

On Tuesday, September 6, 1921, death claimed the most beloved and esteemed of our professional brethren. At 2:30 p. m., Dr. McGraw closed the book of a long life of service and achievement in the medical profession. Failing in health for some time, he succumbed to his malady at his residence, 8162 Jefferson, in the presence of his family.

Dr. McGraw was born in Detroit on the 11th day of November, 1839. He was the second son of the boot and shoe merchant, Alexander C. McGraw, and Susanna Walker-McGraw, who, at the time of his birth, resided in the residential district of



DR. THEODORE A. McGRAW

Born November 11, 1839; Died September 6, 1921

Detroit, corner of First and Congress streets, west. When young Theodore reached the age of six years, his father entrusted his early education to the private chool conducted by Mr. Bacon. He attended this institution with his school chum and life-lond friend, the late Henry C. Ledyard, who died in July, 1921. There were three brothers, Edward, died in San Francisco in August, 1921, at the age of 84; William A., died in Detroit in 1898; Agustus C., died in 1907, also in Detroit.

After attending the University of Michigan he graduated from the literary department with the degree of Bachelor of Arts. He was a member of the Alpha Delta Phi fraternity. It was his intention to devote his life to the practice of law and he decided to study the fundamentals of jurisprudence in Germany. In 1859 he went to Bonn with this object in view. Here he became acquainted with the professor of anatomy of the university, who took a keen interest in the young American. Dr. McGraw was very anxious to master the German language and found a great pleasure and advantage in conversing with his new acquaintance. In order to keep in closer relation, he decided to take a course in anatomy, which he followed with such great interest, that it finally led him to study medicine and give up his original resolve of becoming a lawyer. At first he spent two semesters at the University of Bonn; later he migrated to the University of Berlin, where he remained until 1862. Dr. McGraw's intention was to complete his studies in Berlin, but when the Civil War broke out, his sense of patriotism prompted him to return to the United States and espouse to the cause of the North. After reaching his native land in 1862 he matriculated in the College of Physicians and Surgeons in New York city and after a year of intensive application, he graduated as a doctor of medicine in 1863.

Immediately after graduation he spent the first few months as a contract surgeon for the U. S. Army and was stationed at Jefferson barracks in Missouri. Here he found conditions entirely different from what he had anticipated; he was far away from the seat of war activities; the surgical experience he yearned for was not sufficient to satisfy the ambitions of the young surgeon. With the desire of accomplishing greater things and broadening the scope of his medical knowledge, he applied for a commission as surgeon of the U. S. Volunteers. He passed this examination with credit and was commissioned as assistant surgeon with the rank of a first lieutenant. His first assignment was at Chattanooga, being put in charge of a surgical ward of the military hospital. In Chattanooga he also at one time had the superintendence of a smallpox hospital. From the hospital in the valley he witnessed the battle of Lookout Mountain. Toward the end of the war he was assigned to the staff of General J. H. Wilson, and accompanied him in a cavalry raid through Alabama. In the latter state he was left in charge of some wounded soldiers in a small town, where he was captured by General Forrest of the Confederate army, but was soon afterward released on parole. At about this time the war was at an end and the young surgeon, pre-eminently equipped with the best knowledge and experience of the time, returned to Detroit to take up the private practice of medicine and surgery.

On July 10, 1866, Dr. McGraw married Alice Simpson in New York city, returning to Detroit immediately. He began his practice near the corner of Jefferson avenue and Riopelle street, in the house which his father gave him as a wedding present. Physicians with the thorough medical training that Dr. McGraw had, were scarce, and he became a leader of the medical profession in Detroit. In those days physicians received annual fees from families, kept on the most intimate terms with the family and were esteemed as the family physician, confidant and advisor. In speaking of the customs in his early practice, Dr. McGraw said: "We hear now of paying the doctor to keep the community well. It was tried and has not been a distinguished success. When the child of an old and aristocratic household had a trivial sore throat, the doctor would be routed out of bed in the morning, urged to come again at noon and again at night to satisfy the solicitude of a nervous mother. The family physician was a reality then. In some respects it seems to me we have lost since that day, and in others gained. The rewards of the profession are better, but there has been a loss on the side of idealism. The modern doctor, mostly ahead of the old school in his scientific attainments, has been touched by the spirit of the commercial age." At another time he remarked, that during his first month of practice he did not make ten dollars.

Medical education at that time was in a deplorable condition; there were no facilities or inducements for the student of medicine; medical teaching was crude and primitive and the capabilities and scientific standard of the average doctor was low. Through-

out the entire state of Michigan there were no medical schools of high standing. Dr. McGraw conceived the idea of founding a medical school, and in collaboration with his lifelong friend Dr. Edward W. Jenks, and through his indefatigable efforts, the Detroit College of Medicine came into existence in 1869.

Like most surgeons, Dr McGraw at first was a general practitioner and gradually drifted into surgery, the specialty for which he had been particularly trained in the practical school of warfare. At the Detroit College of Medicine, he was professor of surgery until he retired. In 1885 when a complete reorganization of the teaching faculty took place, Dr. McGraw was elected president, which position he efficiently held for many years. For a long time he was surgeon to Harper and St. Mary's Hospital, but came to the conclusion that he could not conscientiously do justice to both institutions. He could not give the necessary time and attention to the needs of his patients at both hospitals, and therefore confined his work to St. Mary's. His activities at this institution extended over a period of 45 years. He, however, remained on the consulting staff of Harper Hospital until his death.

The reputation of Dr. McGraw as a surgeon, was international in its scope. He was a thorough student and a master of his specialty; a prolific writer and a recognized authority on surgical subjects. Some of his best contributions to medical literature were, the chapter on "Tumors" in Bryant and Bucks Surgery, Vol. I.

"Upon the Use of the Elastic Ligature in the Surgery of the Intestines," 1891.

"A New Method of Reducing Old Dislocations of the Lower Jaw," 1899.

"The Education of the Laity in Medicine," 1900.

"Gastro-Enterostomy by the Elastic Ligature," 1901.

"The Use and Limitations of the Elastic Ligature in Intestinal Surgery," 1901.

"Some Practical Considerations on Tumefactions of the Climacteric Breast," 1903.

"Practical Considerations on Intestinal Amastomosis," 1903.

"The Value of Statistics in the Study of Cancers," 1905.

"Some Unsettled Questions in the Treatment of Hare Lip and Cleft Palate," 1908.

"The Prophylaxis of Cancer," 1908.

"Aneurysims in Young People," 1909.

"The Statistics of Cancer," 1910.

"The Use of the Finger in Rhinoplasty," 1910.

At the forty-second annual meeting of the Americal Medical Association, held at Washington, D. C., May, 1891. Dr. McGraw delivered the chairman's address before the Section on Surgery and Anatomy "Upon the Use of the Elastic Ligature in the Surgery of the Intestines." This was the first public announcement to the profession of the McGraw elastic ligature. This method of anastomosis was discussed in most surgical conferences and journals and accepted by many of the world's leading surgeons. The method for intestinal anastomosis introduced by Wolfler was in vogue with some German surgeons, but was not recognized in America and England until Dr. Senn had modified the technic and demonstrated its usefulness. Since that time American surgeons manifested great interest by endeavoring to improve the method of operating. From the spring of 1890 until 1891, Dr. McGraw with his able assistants, Drs. Ives, Ireland, Hickey and Warren, experimented perseveringly to bring the elastic ligature to a successful outcome. The result was epoch making, and placed the name McGraw with the foremost surgeons of the age.

The local medical fraternity recognized a colleague of unusual surgical attainments in Dr. McGraw and every position of honor and appreciation was conferred upon him. There were no local limitations to the recognition of his ability. He was vice-president of the American Medical Association and vice president of the American Surgical Association. In 1905 the University of Michigan conferred on him the honorary degree of Doctor of Laws in recognition of his services as educator and scientist. He was president of the former Detroit Medical and Library Association; the Wayne County and Michigan State Medical Societies; he was a member of the Detroit and Country Clubs, Loyal Legion, Board of Commerce, Christ Episcopal Church and St. Pauls Cathedral.

As a teacher, Dr. McGraw was superlatively successful. He had the enviable reputation of being the best teacher in medicine and surgery Detroit has ever known. His lectures were attended with interest; the student felt the magnetism of his personality; his erudite diction was singular; his faculty of imparting knowledge to his hearers was exceptional, his description, analysis, discourse, and persuasion were a

revelation; his disquisitions, especially those pertaining to tumors, were well correlated masterpieces and really classics of his time. Two classes of maladies always seemed to receive particular attention and emphasis, as those who served as internes will bear witness; the timely and radical removal of cancer and the very early operation for intestinal obstruction. He was methodic in all his undertakings, which was even a characteristic in his gait.

Dr. McGraw preached constantly longer and more thorough training for physicians particularly surgeons, and condemned the tendency of attempting major operations by those not sufficiently educated and prepared. He said: "Modern methods of surgery admit of such radical procedure that the young surgeon is inclined to lose his respect for the human body. He thinks he can cut in at will and produce sweeping cures immediately. Patients share this notion to a large extent and are eager to submit to major operations, which they have come to regard as trivial. Special equipment should be required of the surgeon. The young graduate in medicine should not be permitted to exercise his zeal for operating until he has perfected himself through assisting older men. I believe a law calling for a special degree would be of value."

His enthusiasm and concern for the welfare of his patients was appurtenant to his conscientiousness. It mattered not whether the patient was wealthy or a pauper, and even in the last years of his active practice he could be seen wending his way to the hospital at any time of the day or night to succor the suffering and minister his surgical skill to the poor and city patients.

No matter what aggravating circumstances arose at the operating table, whether hemorrhage or shock, he was always calm, deliberate, and fearless; in the lecture room, at the bedside, at the operating table, always master of the situation. With his patients and fellow practitioners he was upright and straightforward in all his dealings.

Wherever science and surgery is cultivated, the name Theodore McGraw is honored. The contemporary of a great band of surgeons, in a scientific and surgical age, he held a prominent place among them and was revered by them all, be they who they might. Throughout the entire state and in many parts of the globe there are heirs of his labors, who are grateful and venerate the man whose name they have heard but with praise. To his friends he was venerable as "the best man they had ever known," but it is rarely said so often in the case of one physician as it is in Dr. McGraw's. His professional career and his labors in the field of surgery form that link between his life and that of society at large, which justifies the title of benefactor to the human race. He has been called so by hundreds of firesides, and wherever scientific men meet together in the short time which elapsed since his death. We have no doubt the title will be ratified by all who may become acquainted with the history of his life.

There was no pedantry in his work any more than in his knowledge. He was too seriously engaged for gossip, but had minutes or hours to bestow, where they really could do good. He had conscientious thought to spare for other people's affairs, and modest sympathy for their interests, and intrepid advice when it was asked, and honest rebuke when it was deserved and might be effectual. His unobtrusiveness was, perhaps, the most striking quality of his manner to observers who knew what was in him. His piety, reverent and heartfelt, was silent, as he preferred that of others should be.

His domestic affections were unconcealable; but spoken sentiment was quite out of his way. His happy marriage ended in a mingling of pain and tolerance which touched the hearts of all witnesses. Never was so much understood with so little said. Now that both are gone, it is right to present this feature in the character of a man so long before known as physician and as savant. He lived, however, to see his children fulfilling their own career of labor and honor; a son, a physician of great merit, a daughter the kind mother of four children and the spouse of an attorney.

Nothing can preclude any one of the honors due to such a man as Dr. McGraw, who was not only a priceless treasure to his professional friends, but a benefactor to suffering humanity.

The popular benefits of scientific developments always bring about a grateful recognition of the originator, sooner or later, but such tardy honor is not enough. Those who understood what society has lost in the life and by the death of Theodore McGraw should say what they know of him, that he may be mourned as he deserves, and that future generations may not inquire in vain how so great a man lived and died.

Necrology Committee,
Dr. Joseph H. Andries,
Chairman.

Doctor S. John Fraser was born in Goderich, Ontario, in 1857 and died in Detroit, September 30, 1921. He graduated from the Michigan College of Medicine in 1885 and began his practice in Newberry, Michigan, where he was City Physician. After eight years, he moved to Detroit.

He was a member of the Wayne County Medical Society, Michigan State Medical Society, American Medical Association, Odd Fellows, Knights of Pythias, Indpendent Order of Forresters, and First Presbyterian Church.

Doctor Fraser married Miss Emily Durand of Toronto in 1885. The Doctor is survived by his widow and two daughters, Mrs. Clarence Felter of New York and Mrs. John Lauver of Dayton, Ohio.

Doctor J. D. Riker was born in White Lake in 1866 and died in Pontiac, October 8, 1921. He graduated from the Medical Department of the University of Michigan in 1890. He settled in Pontiac and practiced medicine there till his death.

He was prominent in Masonic, Pythian and Elk circles. In 1904 he was elected Mayor of Pontiac and served one term.

He is survived by his widow and four sons.

County Society News

WAYNE COUNTY

The regular meeting of the Wayne County Medical Society for 1921-1922 was held Monday evening, September 19, 1921. Approximately 150 were present.

The officers for the year are Dr. James E. Davis, President; Dr. James H. Dempster, Vice President; Dr. Bruce C. Lockwood, Secretary; Dr. Arthur D. Holmes, Treasurer.

At this first meeting Dr. Harold Wilson presented the retiring president's address. He commented on present-day medical activities, compared the present-day doctor with the old time family physician and deplored the fact that so much State medicine was creeping in upon us and warned the medical profession that some action should be taken to fight this evil.

Dr. Frank R. Starkey presented two cases, one of anteriopoliometis presenting exoptholmus of the right eye, the other, one of C. S. Lues presenting exoptholmus.

The officers and Committee Chairmen for 1920-1921 read their reports at this meeting.

The Necrology Committee through Dr. Jos. Andries, Chairman, read a memorial to Dr. Theodore A. McGraw, in which he gave his life history, his contributions to medicine, etc. Drs. Robbins, Hitchcock and Dempster spoke of the rare good qualities of Dr. McGraw and the esteem in which he was held by all who knew him.

The first meeting of the Surgical Section of the Society was held Sept. 26. Dr. Alex W. Blain read a paper on Group Medicine vs. State Medicine.

The second general meeting of the Society was held Oct. 3, 1921. Approximately 260 were present. This evening was devoted to Education of the Public in medicine. Mr. Cody, superintendent of schools of Detroit, was present and gave us an interesting talk with reference to standing of the medical profession among the laity as compared with earlier years. He thought our standing not quite as high, at least it was different, due to the fact that we had not been educating the general public as to our many advances in medicine. He recommended that more general information be disseminated, and invited the medical profession to use the schools for this purpose.

Dr. James A. MacMillan, Chairman of Public Education Committee of the Society, then gave an outline of contemplated campaign for instruction of the public as recommended by that Committee. This subject was also discussed by Mr. Rivette, principal of the Northwestern High School, by Drs. Biddle, Guy L. Kiefer, and others. Dr. Don M. Campbell thought that we should not try to do the teaching ourselves, but to influence the schools to make physiology and hygiene a more popular subject. He did not believe that the standard of the medical profession of today had gone down but that on the other hand we had made so many advances and so much progress that we had risen above the clouds, so to speak, and that the public did not always understand us.

The president, Mr. Davis, announced and made an appeal for co-operation during the week of Oct. 31-Nov. 5, which is to be "Cancer Week," devoted to the dissemination of knowledge regarding the disease in our schools, theater buildings, etc.

ADDRESS OF THE RETIRING PRESIDENT

Delivered Before the Wayne County Medical Society, Sept. 19, 1921.

By Dr. Harold Wilson

It is one of our somewhat curious customs that your late presiding officer, although officially dead and buried for some months, should be permitted at this time to suffer a transitory resurrection. A resurrection so brief however, that with the certainty of an immediate re-interment, he is moved to utter the cry of the Roman gladiator. "We who are about to die salute thee," and lest there be many among you who would at once turn down your thumbs, he hastens to say that his salutation will not be overlong.

First, may I express my appreciative gratitude for the honor you were so kind as to bestow, and my regret that the fruits of my administration were not more ample. The problems of the doctor, both in private and in public, appear to multiply and to grow more complex. Medical organizations become less simple; their functions increase and differentiate. Time was when a medical society was little more than a loose fabric wherein physicians sought for mutual progress in the practice of medicine, by the discussion of its science and art. It was a bare and formal thing. Such was our own society not long ago, and now—we have made it a civic and a social institution. We are developing its possibilities as a means of obliterating professional antagonisms and misjudgments—of promoting a friendly and generous brotherhood among its members. We are creating an instrument for the preservation and maintainence of public health. We have entered the lists of legislation and politics where we joust with those who seek to do us harm. We are building a medical library for the preservation of knowledge. We are keeping open the printed avenues of communication not only between ourselves, but also with the public. We are attempting to cooperate with other instruments operating to promote the progress of medicine, and finally, we are wrestling with those intimate problems which relate to the maintainance of our individual livelihood.

With such complicated functions to perform, perhaps we can expect no more than to move slowly. It is surely more important to move wisely

than swiftly, and even this, we may not accomplish. I wish to discuss with you some of the obvious problems that we have to face, or at least to make passing comment on some aspects of our present status quo.

Since co-operative effort is the means of progress in civilization, it would seem obviously necessary for the medical profession to preserve and develop its organizations, and to keep them mutual and democratic. Thus this society, whose entrance upon another year of existence we mark by this initial meeting, enters vitally into the private welfare of each of its members. Without it we are an unco-ordinated multitude; with it, we become a conscious force in the community. I cannot urge you too strongly to assist in its preservation.

It would seem reasonable then, to believe that such an organization as ours is a logical necessity to the medical profession which would disintegrate without it. It would seem reasonable also to urge its members toward its loyal support, so that it might keep its place among the machinery of civilization. I am rather disposed in fact, to idealize its importance. Yet I wonder if after all, the day of ideals in medicine is not rapidly passing away. There was a day not long ago, when the physician invested the profession of medicine with a certain dignity and importance of which he himself shared something. There was a common feeling of noblesse oblige, which led its possessors toward high thoughts and high ideals—toward honesty and uprightness and gentleness and wisdom—toward the fulfillment of every obligation demanded by sick and suffering humanity. It led them to hard unpaid labor, to tasks of pity, to self sacrifice. You recognize the portrait as that of a doctor of the old school, now an historical figure, almost a tradition, scarcely an inheritance.

It is the absence of such a feeling that tends to breed a race which gathers wealth by the exploitation of medical or surgical fashions, a race whose creed is written in answer to the question "What is there in it for me?" a race which in its ultra-science from another aspect, classifies human beings by case numbers and the nomenclature of diseases; which institutionalizes the practice of medicine until it is almost de-individualized, and which brags of the number of its patients and the size of its income tax. It tends toward a new breed of doctors, who, brushing the dust of their medical ancestors from their business clothes, are disposed to regard these ancient gentlemen as rather sad birds.

I do not feel sure that it is not old fashioned or academic to talk of ideals that are out of style. They say that in Russia it is being discovered that people do not desire to live in an ideal social state, and that the strongest moving force in the world is self interest. Possibly this is true everywhere, even among doctors. It would be silly to urge a body of intelligent medical men to be unselfish and to labor for the common good without reward, if so to do was in contradiction to their fundamental human nature. I cannot quite believe that it is, yet I recognize the fact that the cultivation of a quite unadulterated selfishness is by no means the mark of failure in medical practice. On the contrary, we all know not a few medical men in our own community who have so thoroughly attended to their own affairs that both their prestige and their incomes have grown great, yet I question whether they have not grown fat and prosperous, as do other parasites, on what has been supplied by others who were less selfish, and further, whether the whole fabric would not collapse were those less selfish to cease their disinterested labors.

There is, moreover, not only the selfishness and indifference of individuals, but also that of groups. I am tempted to believe that the medical profession as a group is indifferent and often even hostile to many efforts made for its benefit. If a few concern themselves to defend the profession against destructive legislation, for example, is it not true that the many do not trouble themesleves even so much as to ascertain what it is all about? If a few sacrifice their time and strength in constructive work for the profession, is it not true that they are faced with the accusation of self-aggrandizement? Yet we cannot all concern ourselves with public affairs, we have too many private interests which need attention, and I do not wish to criticize an indifference which is not altogether unjust. If my wife needs a new dress or my children new shoes, I am apt at the moment to be more concerned with my private business than with public affairs. Making allowance, however, for these moments of private preoccupation, I think it is fair to say that the obligation of public service does not weigh heavily on the soul of the average doctor, nor for that matter, on the soul of the average member of any social group. I doubt if it will ever be otherwise. There will be a few idealists whose reward will consist in an occasional feeling of self satisfaction, and there will be many realists whose reward will be a material prosperity very comfortable to contemplate, and still more comfortable to enjoy.

We had a committee on Public Health last year. Two letters were sent to its chairman begging that the committee might be organized and made active in the consideration of pressing problems. There appeared to be a sufficient number of matters properly within its jurisdiction crying for consideration. For reasons best known to its chairman, no response was made to either letter, nor a single meeting of the committee held. We were merely regretful at the lack of courtesy, but we were sorely betrayed by the lack of helpful co-operation. I am deeply grateful to those others who gave themselves freely in the discharge of their obligations. Our legislative committee gave us vital assistance on several critical occasions, and every member of the profession is in debt to it.

The problems of our earnest and hard working Library Committee have been acute and difficult. To many of us the maintainance of our medical library and its growth into a really great institution, is a cherished hope. Many of us believe that for these ends, its continued existence as an integral part of this society is essential, and we look upon any movement to place it anywhere but under our own roof, as a calamity. But in order to avoid this calamity it is necessary that we have the money needed for its continuance. I beg to ask you to give it your material aid.

The society itself has felt the pinch of hard times, and the burden of your Trustees in equalizing expenditure and income is a heavy one. We are faced too, with the growing problem of adequate housing for the society. Since we acquired the property we now occupy the society has grown greatly, and its need for space has increased. We need more room and the incoming administration will find this need becoming more and more imperative. You must assist in its solution.

Last year the first steps were taken toward utilizing the residue of our "Patriotic Fund" as the nucleus of an endowment in perpetuity for the establishment of a lecture foundation. I believe that such use of this money would be both commendable and of much advantage to the society. I hope that the plan may be consummated during the coming year.

Nearly a year ago the president of the University of Michigan invited the medical profession of this state to attend a conference—so-called— at which the proposed plans of the University relating to its

medical department were to be presented and discussed. These plans were presented, and they were discussed. Those of you who were then present will recall the occasion quite distinctly. In brief, the president was informed that the plan proposed would not meet the approval of the medical profession. Since then the legislature of this state has granted money for the completion of the university hospital, but if there has been any change in the plans of the president or the Board of Regents as to how that institution was to be conducted, I am not aware of it. More than 50 members of this society attended this meeting. Some of them joined in the outburst of antipathetic oratory. I have not heard as much as a peep from any one of them since that time, yet it was then clear that the University of Michigan proposed to enter the private practice of medicine and surgery, using its prestige and its faculty to compete with the private medical practitioner in this state. Have we grown to believe that this is a proper function of the State, or are we merely thoughtlessly indifferent? If we still care, and if our opposition is not dead, I suggest that the issue be revitalized. I do not know what the present plans of the University may be. The president may have harkened to the voice of the poor and rather inconsequential doctor whom we may call "extra-mural" to distinguish him from those within the portals of the university—and may have decided to limit the activities of the new hospital to the relief of the sick poor of the state so as not to impair the livelihood of these outside doctors, as generally inferior as they may be in scientific attainments. I am so fearful, however, that this is a dream and not true, that I venture to suggest a letter be sent from the president of the Michigan State Medical Society, or indeed from our own president, or from others who may be so inclined, addressed to the president of the university or the Board of Regents, requesting information as to what are the present plans of the University as to the care and charges for service to private patients in the University Hospital. It would be a poor commentary on our sincerity were this matter to be left without further action on our part.

During the past year there was an active propaganda on the part of the Detroit Board of Health for the erection of a 1000-bed hospital. There had been no careful survey of the existing hospitals and other agencies for the care of the sick. The so-called "survey" made by the Bureau of Governmental Research was little more than a comic opera contribution. There had been gathered no data adequate to determine either that more beds were really needed, or how many, or of what sort, or under whose control they might properly be placed if provided, with the exception that it could be shown that the provision for the care of contagious diseases, and probably maternity cases, was insufficient. Further than this, the argument was largely an assemblage of glittering generalities, such as the number of beds per thousand in other cities, together with the vague offer of free access to the privileges of the hospital. to certain doctors some of whom had cried loudly because they had found practice in existing institutions difficult. Private patients were to be taken care of at lower rates and under "more modern conditions" than could be found in the average existing hospital. Altogether, the campaign was carried on skillfully, and when a meeting of this society, called to consider the proposed plans of the Board of Health, the chair endeavored to initiate some effort to study the existing conditions in order to gather enough facts to make possible an intelligent opinion as to what needs there were and how they could best be met, you declined to concern yourselves with such a proposal and more than intimated ulterior and secret motives on the part of our chairman in suggesting it. So the electors of this city were presently privileged to express by vote their opinion as to the need for, and the wisdom of building a $3,000,000 City Hospital, and I can imagine the gods on high Olympus roaring with laughter at the idea of such an opinion having any rational value. I fear however, that we may discover hereafter, that we have in this matter added a link to the claim of state medicine which some day will clog our freedom and stop our progress. On every side, in the direction of Health Insurance, the state regulation of fees, the state supervision of venereal and other communicable diseases, the establishment of state clinics for the care and treatment of various types of disease, the supervision of motherhood, the health of school children, the control of alcohol and narcotics, constant efforts are being made to place the medical profession in fetters from which it will never escape.

Last year it is said that 17,000 school children in Detroit were certified by school employed physicians to be in need of treatment or operation for tonsils and adenoids. At this moment our hospitals are being asked to speed up their surgical machinery for the rapid removal of these organs, so that those of this number not already accommodated may be taken care of. These children are sent to our hospitals and dispensaries if not with a ready-made diagnosis, at least with the definite conviction in the minds of their parents that an operation is required. Not to have had their children's tonsils and adenoids removed, has almost become a sign of gross parental neglect. The school doctor's opinion has become so weighty, that if an attending hospital or dispensary clinician bravely decides against an operation, his judgment must be fortified by the concurrent opinion of two of his colleagues. This is the pass to which we have already come. Would you say that the Board of Health or the Board of Education have or have not entered the field of medical practice. Or if the answer to this question is still uncertain, how about the Board of Health Clinics, venereal and otherwise? Or if you like, the care of non-indigent patients in the Receiving Hospital, by another city commission?

We will agree that there is a large number of sick people in every community who are proper subjects for community care, whose sickness and health involve the community as such, in a more or less definite obligation. But we have not yet troubled ourselves to find out who or how many they may be or what provision should rationally be made for their care. I am not at all sure that we ever will.

I understand that the authority to issue bonds for the erection of the Board of Health Hospital is to be a subject for action by the Common Council of this city at a near meeting of that body. I have no reason to know that this society does not still stand committed to this proposal; and from my own unhappy failure in essaying the art of persuasion when the matter was last before you, I shall not repeat the attempt. It seems almost incredible however, that we are willing to rest supinely twiddling our thumbs as the executioner approaches. After we have been decapitated, there will be a long time in which to think it over. It is said that there are some who think quite as logically after decapitation as they did before.

But if we make formal objection to the erection of the proposed City Hospital, are we prepared to offer any plans for the care of community sickness? Are we making any organized effort to meet the activities of the socialists, bolshevists, professors of economics, ignorant women and men intoxicated with the prospect of political power, labor agitators

and the like, who are finding money and leisure to carry on a constant propaganda to limit the doctor's freedom? Are we doing anything to regulate those among ourselves who take a selfish advantage of our present liberties by making exorbitant charges for immaterial service, or who prostitute technical operative skill for the sake of fees? Have we taken steps to equalize the burden of community service? Or do we continue willingly to permit a few to grow fat while others labor without pay to make it possible?

Well, personally I do not think we have done any of these things. Small blame to the public then, when it revolts against a medical profession in which it sees those of good standing commercializing their skill, or possibly capitalizing their ignorance to wring dry the pocket books of their patients.

This is by no means the empty rhetoric of a retiring president. I have no wish to deprive the doctor of a decent living. I do not object even to his fighting against curtailment of his income, which heaven knows, is usually small enough. More power to him. But I wish his living to be both decent and honorable.

If we do not ourselves see to it that the public pays for our services only what it considers just and right, it will secure protection by legislation. The fees for medical service will be regulated by law. It is the privilege of any commonwealth to pass laws of this type.

The public will squander money on almost anything except the doctor.

We have in our own city an institution, which if rumor is to be believed, owes its birth to this feeling of revolt against alleged extortionate fees for medical service. An institution, the future of which I am quite unable to predict, but which at present is so well advertised, that the public has come to believe that it offers nothing but the highest type of medical and surgical skill and at a cost to the patient much below the market price of the private practitioner. Such a belief is a valuable asset to any institution, but whether this one survives depends more upon the wisdom of its management and the continuance of the condition in medical practice to which it was reactionary.

Ignorance and credulity are the common prerogatives of the public and are nowhere more evident than in matters relating to the treatment of disease. To explain disease and its cure by "anatomic disrelation," or "vertebral subluxations," or "false thoughts," or "indigestion," or "colonic stasis," is as acceptable to the public mind as any talk about cellular pataology, infection and immunity, or biochemistry. The popular estimate of any doctor is more apt to be grounded upon some irrelevant and immaterial circumstance than upon his education and intelligence. The amount of money which the public spends upon worthless drugs, dishonest "cures," ignorant manipulators and fakirs of various sorts would maintain an educated medical profession in affluence.

It is certainly sad to see all this money going in another direction. So sad, that not a few doctors make a business of going out after it themselves. If it is the unalterable way of the world to grab off all one can get and carry away; if the one fixed and unchanging human quality is self interest; if the talk about human welfare, civic and social conscience, one's duty to others and so on, is bunk, there are some of us who have wasted much time and opportunity. My own belief is that the standards of conduct and the road to happiness are found nowhere but in each man's heart, and to quote an old saying, "that which is the breaking point for one, is the hanging point for another."

CALHOUN COUNTY

The seventh regular meeting of the Calhoun Medical Society was called to order at the Post Tavern dining room at 7:45 o'clock, Tuesday evening, September 6th, by President Shipp.

The minutes of the last meeting were approved as printed in the bulletin.

Bills were received from the Phoenix Printing Company: September bulletin, $6.50; extra cards for the June meeting, $3.50; total $10.00; from Coggan, the florist, flowers for Van Camp and Landon, $8.00; from Dr. Haughey, dinner for Dr. Freund, $1.50, postage September bulletin, $1.50. These bills, after being approved by members of the board of directors present, were upon motion, ordered paid.

Communication was read from daughter of Dr. Green of Spring Arbor, reporting his death a few days previously.

By motion of Dr. Hafford, this communication was referred to Dr. E. L. Parmeter of the Necrology committee with the request that he write a letter to the family expressing our sincere sympathy and that a copy of this letter be published in the next issue of the bulletin.

Several miscellaneous communications were read and accepted.

Announcement was made of a meeting of the program committee to be held within a few days.

Dr. Eggleston, for the program committee, introduced Dr. Hugo Freund of Detroit, who gave the society a very interesting discussion of Hyperthyroidism in which he classified the disease into various classes and suggested treatment.

This paper was discussed by Drs. Squire, Eggleston, MacGregor, Mortenson, Gorsline, Kingsley, Riley, Wafer, Shipp, Hafford, Sr., Gubbins, and the discussion closed by Dr. Freund.

Attendance at the dinner, 27; at the meeting, 40.

Meeting adjourned.

Wilfred Haughey, Secretary.

BAY COUNTY

After the summer months of inactivity the Bay County Medical is planning a strenuous fall season.

The first meeting will be held Thursday, Sept. 29th, when Dr. Bruce of Saginaw will address the society.

Oct. 24th a joint meeting will be held with the Bay City Dental Society to discuss the subject, "The Physician and the Dentist."

Dr. La Ferte, Detroit, will deliver a paper on "Orthopedic Surgery," Nov. 28th.

Other dates and speakers have not yet been decided upon but interesting and inspiring programs are in the making.

The regular meetings, like those of the Service Clubs, will hereafter be "Luncheon Meetings" and will be held at noon. The idea promises to be a popular one and will undoubtedly stimulate new interest.

The local society is beginning a campaign against the "quacks and healers" in our midst and lively proceedings are in prospect.

The first fall meeting was held at noon, Thursday, Sept. 29th. The "Luncheon Meeting" at noon promises to be a big success. There were 40 members present and the paper was delivered by Dr. J. D. Bruce, Saginaw. The topic was "Peptic Ulcers." The well prepared paper was thoroughly discussed and appreciated.

Dr. F. W. Baeslock, Detroit, will address the

next meeting, Oct. 10th, on "Experimental Syphilis With Relation to Its Clinical Manifestations."

The society is proceeding with the prosecution of George Holmberg, the medicine man of Bay City. The case comes before the circuit court in December

L. FERNALD FOSTER,
Secretary.

SAGINAW COUNTY

The October meeting of the Saginaw Medical Society was held Oct. 7th at the Lincoln Club. The subject of "Peptic Ulcer" was very ably presented by Drs. J. D. Bruce and B. B. Rowe. The papers brought out an interesting discussion which made the meeting a very helpful one.

The society voted to continue to use the Lincoln Society rooms as its meeting place.

Dr. Ling of Hemlock has been appointed County Physician. He will move to Saginaw shortly.

Extensive plans have been made for the Cancer Week campaign. The subject will be presented to over 40 organizations who will be instrumental in getting a good crowd out for a mass meeting—at which the subject will be presented by some well known speaker.

Dr. Allen, chief of our new Central Laboratory, is getting his work well under way. He has the central Laboratory in good working order and has established branch laboratories in each of the three hospitals.

R. M. KEMPTON,
Correspondent.

GENESEE COUNTY

The Genesee County Medical Society met on Wednesday, Oct. 5th, 1921, President Orr presiding. Nominations were made for the officers of 1921-22. Dr. R. R. Smith of Grand Rapids was introduced and gave a splendid address on "Visceroptosis—the present-day conception of it and what we do to solve the problem." The lecture was illustrated by lantern slides and evoked a spirited discussion. The society has made plans to co-operate in the Cancer Week program.

At a meeting of the Genesee County Medical Society held Wednesday, Sept. 21st, Dr. George F. Muehlig of Ann Arbor spoke on "Chronic Ulcerative Colitis." His paper was based on his experience with this disease while he was attached to the Mayo Clinic. He gave a complete but concise review of the disease, described the technical methods used in making a diagnosis, and outlined the medical and surgical treatment.

The Genesee County Medical Society met on Wednesday, Oct. 19th, President Orr presiding. Dr. Harry B. Schmidt of Detroit gave an excellent talk on "The Anemias of Pregnancy." Of interest were the splendid results obtained in his series of cases by early diagnosis and treatment by blood transfusion.

The secretary's annual report brought out the information that 28 meetings had been held during the year. At these meetings papers were contributed by 20 out-of-town speakers and 30 by local speakers.

The following officers were elected for 1921-22: President, F. B. Miner; vice president, W. H. Winchester; secretary, W. H. Marshall; treasurer, A. C. Blakely; medico-legal officer, C. Moll; directors, B. E. Burnell, Noah Bates, C. H. O'Neill, H. E. Randall, J. G. R. Manwaring; delegates to the State Society, C. Moll, J. C. Benson; alternates, W. H. Winchester, D. D. Knapp.

W. H. MARSHALL,
Secretary.

TUSCOLA COUNTY

Tuscola County Medical Society met at Caro, Mich., Sept. 21st.

Dr. J. D. Bruce of Saginaw, Mich., read a paper on "Medical Treatment of Gastric and Duodenal Ulcer." Dr. B. B. Rowe of Saginaw, Mich., read a paper on "Surgical Treatment of Gastric and Duodenal Ulcer." Both papers were very good and were very carefully prepared. Discussion of papers followed, led by Dr. Q. D. McCoy of Cass City, Mich.

A general discussion of enlargement of society clinical material was led by Dr. McCoy of Cass City, who urged a more extensive program with clinical material in connection with each paper read.

An amendment to the by-laws was presented, making the fees $7.00 a year, $5.00 for State Society and $2.00 for local society.

H. A. BARBOUR,
Secretary.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Lake View—Beautifully situated, one-third mile lake front, among century old trees. Boating, bathing, fishing. Large, handsome colonial mansion. Baths, steam heat, every city convenience. Orchard, vineyard, complete country estate of 18 acres adjoining village. Ideal location for physician, hospital or sanitarium. Frank Nelson, Paw Paw, Michigan.

Practice for Sale—Excellent opportunity for surgeon or obstetrician with executive ability to obtain controlling interest in small up-to-date hospital in Detroit. Will also consider partnership. Call Cherry 3334. Mr. Glicman, 614 Free Press Bldg., Detroit, Mich.

Full-time resident physicians are required for Michigan in connection with this department's supervision of penal and correctional institution medical work. Opportunities now for two men and for one woman physician. Salaries, $1,800-$3,000 year and maintenance. State age, nationality, married or single, education, present employment, references. Personal interview preferred. Deputy Commissioner, Michigan Department of Health, Lansing, Mich.

A middle western state department of health requires a full-time physician for its traveling tuberculosis clinic. Clinic spends week in each county. Consists of a children's unit and a tuberculosis unit. Only physicians with special training in tuberculosis work considered. Salary $3,000 year and expenses. No. 123, Journal, M. S. M. S.

Practice for sale. House, barn and good will of practice in town of 750, Southern Michigan, for reasonable price of property. No opposition. Box 171, Grass Lake, Mich.

The following officers were elected by the American Academy of Ophthalmology and Oto-Laryngology at its annual meeting, held in Philadelphia, Oct. 19, 1921: President, Dr. W. R. Parker of Detroit; treasurer, Dr. S. H. Large of Cleveland; secretary, Dr. L. C. Peter of Philadelphia, and editor of transactions, Dr. C. Loeb of Chicago.

The regular meeting of the Detroit Society of Internal Medicine was held in the University Club, Oct. 24, 1921. The main presenter was Dr. A. F. Jennings ("Efforts Syndrome Simulating Metral Stenosis," with report of three cases and autopsy); the literature presenter was Dr. G. E. McKean, and the clinical presenter was Dr. J. T. Watkins.

The Detroit Medical Club held its first fall meeting Oct. 20, 1921, at the Medical building, Detroit. Dinner was served at 6:30, which was followed by the address of the retiring president, Dr. E. M. Houghton. The officers for the ensuing year are: President, Dr. R. C. Jamieson; vice president, Dr. W. J. Stapleton, and secretary-treasurer, Dr. Stuart Wilson.

Archibald McGilp, a Pontiac chiropractor, was found guilty of illegally practicing medicine Oct. 18, 1921, under the ruling of Circuit Judge Gillespie of Pontiac. Judge Gillespie, after hearing the evidence, directed the verdict of guilty. Under the court's decision, which followed a state supreme court ruling, chiropractics is the practice of medicine and surgery and those practicing it must register. McGilp was not registered, either as a physician or drugless healer. The evidence showed that McGilp performed the usual chiropractic treatment of the spine. "Under the supreme court ruling," said Judge Gillespie, in his charge to the jury, "this is held to be the practice of medicine. Where the evidence is undisputed, as it is in this case, I must direct a verdict of guilty." The jury was out 10 minutes, following this charge. Dr. B. D. Harison, secretary, and Mr. Henry Montgomery, attorney, represented the Michigan State Board of Registration in Medicine at the trial.

Butterworth and Blodgett Hospitals graduated two large classes of nurses from their training schools. Exercises were held during October.

Dr. J. T. Case of Battle Creek, gave a talk before the staff of Butterworth Hospital on Oct. 7.

Dr. B. H. Van Leuven of Petoskey has been elected a member of the City Commission.

Dr. J. B. Jackson of Kalamazoo was the essayist of the evening at the first fall meeting of the Kent County Medical Society.

The January issue of the Medical Review of Reviews is to be sent as a New Year's gift to practically every physician in the United States and Canada. This issue will be one of the most valuable which has ever been prepared and we trust that the physicians who receive this number will read it with interest and profit.

We congratulate the Medical Review of Reviews on this progressive move and trust they will meet with success in a great undertaking.

The Detroit Ophthalmological and Otological Club held their regular meeting at the Medical building, Oct. 5, 1921. Following the dinner, given by Dr. L. E. Maire, the doctor read a paper on "Soemmering and Contemporary Anatomists."

The registrations this fall in the University of Michigan Medical School and in the Homeopathic Medical School are 557 and 62.

The following Detroit physicians are members of the Meadowbrook Country Club: Doctors J. L. Asselin, L. I. Condit, Ray Connor, G. C. Duggan, E. H. Hanna, T. B. Henry, C. S. Kennedy, D. M. King, C. E. Lemmon, L. A. Murray, G. P. Myers, J. C. Russell, H. L. Simpson and H. W. Yates.

Dr. E. D. Tichenor was recently elected a member of the Detroit Athletic Club.

At a recent meeting, the Michigan Squash Racquets Association re-elected Dr. H. N. Torrey of Detroit, president.

The fellows of the Detroit Academy of Medicine were entertained at dinner at the Lochmoor Golf Club, Oct. 11, 1921, by Dr. J. W. Vaughan. Following the dinner Dr. Vaughan gave the retiring president's address, "The Trend of Modern Medicine," which was freely discussed. Dr. Guy L. Kiefer was elected president; Dr. Max Ballin, vice president; Dr. A. D. McAlpin, secretary-treasurer, and Doctors W. P. Manton and L. E. Maire, directors.

The Michigan State Board of Registration in Medicine held their fall examination in Lansing Oct. 11, 12, 13, 1921. Sixteen candidates took this examination.

Dr. George LeFevre of Muskegon was re-elected president of the Michigan State Board of Registration in Medicine at its annual meeting held in Lansing, Oct. 12, 1921. Dr. B. D. Harison of Detroit was re-elected secretary.

The Detroit Surgical Society was entertained Oct. 14, 1921, in Toronto by the surgeons of the Toronto General Hospital and Hospital for Sick Children.

McGill University celebrated Oct. 11-15, 1921, the hundredth anniversary of its founding. The library of Sir William Osler was formally accepted at this time. Doctors Duncan Cameron of Alpena, A. D. Holmes of Detroit, Hedley Williamson of Detroit and Harry Boulter of Detroit were among those present.

The state supreme court of Indiana has declared the sterilization law unconstitutional. The principal point taken is that the statutes do not give the person concerned a hearing before a judical body where he may present his side of the case and evidence. The question was also raised as to sterilization being an extra punishment not ordered by a court.

The Albany Medical College has succeeded in raising $120,000—$40,000 a year for three years—which was necessary to secure a gift of $60,000 ($20,000 a year for three years) from the Rockefeller Foundation.

The General Education Board and the Carnegie Corporation have jointly promised $100,000 to the Medical College of the University of Georgia, to be paid at the rate of $20,000 a year for the next five years, on condition that a like amount each year is

raised by the college authorities from other sources. A campaign to obtain the additional funds has been started by the Medical School.

Actual construction on the $225,000 wing of the Oregon University Medical School has begun and the new building will be ready for the opening of the school year in the fall of 1922 and will more than double the present capacity of the school. The building has been made possible by a gift from the Rockefeller Foundation fund, matched by a state appropriation. In addition the Rockefeller Foundation has donated $50,000 for the equipment.

The Tri-State District Medical Society will hold its annual assembly in Milwaukee, Nov. 14-17, 1921. Besides papers and addresses by well known physicians and surgeons of Canada and United States, diagnostic clinics will be given.

The American Gynecological Society at its forty-sixth annual meeting June 2-4, 1921, took the following action regarding the bill for the protection of mothers and infants (Sheppard-Towar bill):

1—This society is in thorough accord with the end which this bill seeks to obtain, namely, the protection of the health of mother and infant.

2—It indorses the co-ordination of all health activities under one head.

3—It opposes in principal the control of health measures by non-medical individuals or boards.

4—It believes in the local control of health activities as distinguished from federal.

5—It approves and indorses the idea of propaganda and investigation from the federal government.

6—It does not indorse the Sheppard-Towar bill in its present form because the bill embodies the questionable plan of subsidizing state health activities.

The house of delegates of the Ohio State Medical Association at its last meeting adopted a firm and definite policy in opposition to the nurse anesthetic and repudiated the survey of the special committee.

Dr. Reuben Peterson of Ann Arbor makes the following statement in the August, 1921, issue of the Ohio Stat Medical Journal: This country is not looking for specialists; they are to be found in every corner. What this country wants is more family doctors, general practioners, call them what you please. It wants them because instinctively the people are crying out for the human side of medicine. Will the medical profession answer this call? If it will, I for one am firmly convinced that the people of this country and the medical profession will be better off.

One hundred and eight members (active) were added to the membership roll of the Wayne County Medical Society in 1920-1921. Eight of these members came in by transfer from other county societies.

This year the Detroit Department of Health has 16 physicians, who serve as half-time medical school inspectors. Four of this group will act as an Immunization Squad, and upon them will develop the entire work of vaccination against smallpox and immunization against diphtheria. They will follow a schedule from school to school. Nurses will have ready for them the children whose parents have given permission for immunization against these two diseases. The other 12 men will serve as physical examiners. They will be divided into four teams of three men each. A nurse will be assigned to each team. All physical examinations in the schools will be conducted by these men, who will follow a schedule, traveling from school to school. The first task of these teams will be the examination of about 10,000 children, who, it is expected, will be found to be 15 per cent or more under weight. This work will be concluded before Dec. 1. Following this, the teams will again make the circuit of the schools, examining all first grade children and such casuals from other grades as are referred by the nurses. Completing this work by March 15, the teams will again make the circuit, examining all fifth grade children. It is expected that 50,000 children will be reached by these physical examinations during the course of the school year.

The Advisory Council of the State Department of Health at its August meeting declared that malaria which has appeared in Michigan this summer is a disease dangerous to public health. The following regulations for its control were promulgated:

1—Cases must be reported.

2—Patients must be isolated during the hours between sunset and sunrise in a room having all the doors and windows covered by a screen having a mesh not coarser than 12 to linear inch.

Harper Hospital has opened a diagnostic clinic to serve the medical profession. Patients are accepted only when referred by a physician. The average stay of the patient in the hospital is from one to four days. The cost is $25.00 plus $3.50 per day for a ward bed.

The Wayne County Medical Society held its opening meeting Sept. 19, 1921, with an attendance of a little over 100. President Harold Wilson read the retiring president's address and reports were given by the various committees.

Dr. F. M. Baker of Grosse Point left Sept. 27, 1921, for his hunting lodge in the Black Hills, South Dakota.

Governor Sproul of Pennsylvania has appointed Dr. John M. Baldy as commissioner of welfare under the authority of the new law which was passed at the last session of the legislature. The law creates a department of welfare under the state government to take over the powers and duties of the old state board of public charities, the lunacy commission, the prison labor board and other related activities. Dr. Baldy has been president of the state board of medical education and licensure since its creation in 1911, and has had much to do with the raising of the standard of medical practice in Pennsylvania and in upbuilding of the hospital system in that state. Dr. Irvin D. Metzger of Pittsburgh has been elected chairman of the state bureau of medical education and licensure to succeed Dr. Baldy.

Dr. F. B. Tibbals gave a talk on "Medico-Legal Defense," Sept. 22, 1921, before the East Side Physicians' Association of Detroit.

While cancer accounts for but 4.7 per cent of the total deaths in Detroit (1920), it is unusually severe

on certain age groups. This disease represents 18 per cent of all deaths among women between 40 and 60, while among men of the same age group, it represents 9 per cent of all deaths.

A son, Robert George, was born to Dr. and Mrs. Howell Begle of Detroit, Sept. 7, 1921.

In Philadelphia, where vaccination is compulsory, there has not been a case of smallpox in a native Philadelphian in the last 15 years.

Candidates at the June state examination in Illinois for physicians' licenses were required to take a second test Aug. 30-31, on account of the sale of questions given at the June examination.

The Anesthetists of the Middle West held an organization meeting in Kansas City, Mo., Oct. 24-28, 1921, in connection with the meetings of the Medical Veterans of the World War, Missouri Valley Medical Association, the Medical Society of the Southwest and the National Anesthesia Research Society.

There were 10 deaths among the membership of the Wayne County Medical Society during 1920-1921.

There are about 600 physicians in Wayne County who are eligible, but are not members of the County Society. A membership campaign is to be inaugurated in the near future.

Dr. D. M. Greene, who was legislated out of office as chairman of the Highland Park Hospital Board of Trustees by the city council Sept. 12, 1921, has resigned as chief of the surgical staff. The doctor gives the following reason for his resignation: "Your action in making the hospital an open institution invites and makes possible a class of surgical work by the unskilled for which I do not care to stand responsible."

The Florence Crittenden Home, the Protestant Orphan Asylum, the Home of the Friendless, the Michigan Hospital School and the Thompson Home for Old Ladies were each left $5,000 by the late Cromwell D. Montrose of Detroit.

The Detroit Board of Education has opened an "Open Window Room" in each of five public schools in addition to the "Open Air Schools." The children in the Open Air Schools have all been definitely diagnosed as being infected by the tubercle bacillus (no open lesions) or as having been exposed to an open case of tuberculosis at home. Admission to the Open Window Room is open to the following: (1) Those convalescing from an acute infectious disease; (2) those who are markedly under weight; (3) thoes who are suffering from heart disease and who are not eligible for hospitalization; (4) those suffering from a non-tubercular lung infection.

The children of Polish, German and Russian ancestry in the Detroit Public Schools, were found to be the best nourished. The reason for this may be that they receive the more common foods, high in caloric value, instead of rich pastries, etc., and also to the fact that they did not consume as many sweets between meals.

During the year 1920-1921 the Detroit Department of Health excluded 12,803 children from the Detroit schools on account of disease. They recommended 44,860 corrections for physical defects and secured corrections for 9,983 of these.

Dr. Morton Gallagher of Bay City has recovered after a serious illness of several months.

Dr. George Richards of Bay City recently lost his wife following a short illness.

The Bay City Detention Hospital, city owned, has been re-equipped and opened as a general hospital and is now known as the "Bay City General Hospital." It has a bed capacity of 35 and is a worthy addition to local hospital facilities.

The first regular meeting of the fall of the West Side Physicians' Association was held in the auditorium of the Northwestern High School, Detroit, Oct. 13, 1921. Dr. J. B. Kennedy spoke on the "Progress of Scientific Medicine for the Past Few Centuries." Senator Condon also spoke, urging the medical profession to take more interest in legislative affairs affecting their interests.

The Detroit Academy of Medicine met Oct. 25, 1921, in the office of Dr. A. P. Biddle. Dr. W. H. MacCraken read his inaugural paper on "Some Observations in the Development of Arsenic Tolerance in the Lower Animals."

Dr. John Migdalski, a Hamtramck physician, for whom a manslaughter warrant was issued Oct. 20, 1921, following the death of Mrs. Helen Tinck, pleaded not guilty before Judge S. A. Majewski Oct. 21, 1921. Bail was fixed at $10,000 with two sureties.

The second directed verdict of guilty in connection with cases of chiropractors in Pontiac was made Oct. 20, 1921, by Judge Glenn C. Gillespie. W. H. Currier had been on trial for practicing medicine without being registered with the Michigan State Medical Board.

The membership Committee of the Wayne County Medical Society announces that at the end of the membership campaign there will be but three classes of physicians on the outside: (1) Those who, because of shady practices, are ineligible; (2) those who are disgruntled and prefer to stay on the outside and knock; (3) those who, because of age or ill-health, are no longer in active practice.

Oct. 19, 16 X-ray men of Detroit and vicinity were the guests of Dr. P. M. Hickey at a luncheon given at the Wayne County Medical Society building, where the advisability of organizing a local Roentgen ray and radium society was favorably discussed. The sentiment in favor of such a movement was unanimous. A provisional constitution and by-laws was discussed clause by clause, and finally adopted. The name of the new society is "The Detroit Roentgen Ray and Radium Society." The officers for the year 1921 and 1922 are: President, Dr. P. M. Hickey; vice president, Dr. R. E. Loucks; secretary-treasurer, Dr. James H. Dempster. The program committee consists of Doctors William Evans and Rollin Stevens. A membership committee consisting of Dr. George C. Chene and Dr. Howard P. Doub was appointed by the president.

The Grace Hospital desires to announce the affiliation with the hospital in the capacity of chief

of the division of neurology and psychiatry of Dr. Irwin H. Neff, formerly first assistant physician, Pontiac, Mich., State Hospital, and for 11 years superintendent of the Foxboro and Norfolk State Hospitals, Massachusetts.

For two years Dr. Neff was associated with the division of neurology of the Johns Hopkins Hospital, out-patient department.

The Grace Hospital is prepared to receive neurological patients for diagnosis and treatment in this department.

Physicians who desire to avail themselves of Dr. Neff's services in the hospital are requested to make arrangements for admission of patients by addressing the superintendent.

Correspondence

PAUPERIZATION OF MEDICINE

Detroit, Oct. 10, 1921.

To the Editor—We hear on all sides the discussion of the question of social medicine, state medicine, or whatever name this new bogy to the medical profession may be designated. This problem is treated like some sinister demon of phantom-like nature, which, hiding in the dark, will inevitably be heard and soon seen or felt in all its terrors. That it will be of grave danger both to the medical profession, as well as to the general public, seems to be the accepted opinion. The profession has even gone as far as to hold protest meetings and appoint committees to combat the evil.

But that is neither here nor there. The trend for a good many years has been for the "pauperization of medicine," and not as is so sweetly expressed, the socialization, and I contend that the latest step, this so-called "state medicine" is but another step in that directoin.

Just glance at what the regular practitioner of medicine has to contend with in order to make a livelihood for himself and dependents, as a reward for having devoted the better portion of his life in perfecting himself for his career. The array of competition is astounding. It is to be wondered that he can exist at all. In the first place, state, county, and city departments of health already are practicing medicine to a large degree. In the city of Detroit, the city has the largest Genito-Urinary practice in its territory. It has the largest eye, ear, nose, and throat practice, including operative work, in the city. It has a free maternity hospital and baby clinics; it does first aid and medical treatment in the schools, etc. What is all this? What is the cause and purpose? The primary function of the health department should be in preventive medicine and sanitation. If this includes the removal of tonsils or the taking care of confinement cases, etc., there is no reason why the private physician isn't capable of doing the work instead of socializing it by the city. In the same manner in which the poor and needy get city checks and allowances for food and clothing and go to their own private clothier or grocer, so in like manner should the patient be enabled to choose his own family physician or the specialist as required. Not only does the city practitioner have to compete with an already organized and functioning state, county, and city medical practice, but with many other boards, bureaus and clinics. Nearly all hospitals have so-called free clinics, and while the majority of cases attended are beyond question, deserving and creditable, however, is it not pauperizing the people as well as the profession to dispense free medicine in this manner?

The public should vote certain grants for this class of people, so that the physician should receive compensation for his services, and then the patient would know that he is under no obligation to the doctor or to the hospital. Besides the hospital clinics, the doctor must compete with the so-called welfare and social center clinics, with lodge and fraternal doctors and what not. More recently such hospitals as the Henry Ford and the U. of M. are practicing medicine and surgery with their own staffs in open competition to the entire medical profession; the first, a private institution doing no free work, and the second, a state institution taking pay cases.

It is my contention that the medical profession should get at the root of this evil, this attempted pauperization of medicine. No such a problem or bogy, such as "state medicine," would ever be seen or heard of, had not the people been fed up on free medicine, free dispensaries, free clinics, etc. What other profession is so crowded with its "free offerings" on the alter of public service?

"Give a person a finger and he wants the entire hand," said the old philosophers. This applies with equal force to medicine as it would to law, engineering or merchandise.

It is about time that the profession took cognizance of the fact that the so-called "state medicine" is merely the spires and steeples of the structure that has been reared on a foundation more subtle and insidious, namely, "free medicine." Let us begin at the source of the trouble and the effect will soon disappear.

S. E. BARNETT, M. D.

Editor, Journal, Michigan State Medical Society—Perhaps no other calling, in which men are engaged, is less conscious of its personal interests than that of medicine. In fact it would be not a bad thing to get together and determine what those interests may be.

It is hardly an open question but that its disintegrating influences, if such they may be called, are from within. Without the voluntary service of the doctor, State Medicine can cause no alarm; without his support closed hospitals operated by capitalists cannot exist. While the medical profession is awakening to its consciousness as a body of men with common interests, the laity continue to misconstrue its altruism. Among the most recent attempts towards helping the layman and incidentlly the general practitioner is the movement on the part of Harper Hospital, Detroit, to make a complete diagnostic examination for a stated sum. Several members of the staff said the first intimation they had was the ad in the Wayne County Medical Bulletin. Hence the idea of a pay diagnostic clinic must have originated elsewhere. The avowed purpose is service to the medical profession. In reality, whom does it serve? Instead of serving the medical profession, what it really does is to tend to destroy the doctor's initiative and lessen his medical acumen. We learn the art of diagnosis by actually performing the necessary acts in connection with it and by profiting by our shortcomings. If we are to have a ready made diagnosis so that nothing is left but to treat the patient what is going to be the outcome so far as developing the diagnostic ability of the profession is concerned? Not only would such a movement lead to the deterioration of scientific medicine in practice, but it would mean the ruination of all consulting practice done by any one outside, who was not a member of the staff of the aforesaid hospital.

For a stated sum all medical and surgical cases may be referred to the hospital and receive the

service of the internist, gastroenterologist, obstetrician, gynecologist, opthalmologist, laryngologist, dermatologist, neurologist, pathologist, laboratory and x-ray worker. What of those doctors outside, who have endeavored to qualify themselves in these various branches of medicine and are conducting private practice? Is the hospital endeavoring to serve them? Is it even for that matter serving the doctor in general practice? The doctor can be helped best by leaving him free to pursue his work in his own way. The rule of laissez faire is his best servant. It has been very aptly stated that to prove or demonstrate the fallacy of a piece of legislation is not to violate the law, but to carry it out to the letter. If a large portion of the profession, that is, those who, perhaps, limit their work least, made use of such a diagnostic clinic, in a large degree, what would become of those who concentrate their time and efforts upon one particular department of medicine? Carried to its logical conclusion would not such a circumstance be in the same category as discriminating class legislation. Doubtless many will look upon such service as an instance of the "Greeks bearing gifts," and the invitation will be more "honored in the breach than in the observance."

The writer does not believe that there is any doctor in Detroit who wishes to be relieved of the burden of doing his own thinking. What he does wish are the various laboratory findings. He does not wish even the laboratory to make his diagnosis for him, but to supply him the data, which will assist in clearing up obscure points in diagnosis. He summons to his aid likewise the consultant in whom he has confidence for a similar purpose.

The idea of the diagnostic clinic is to help the man on small income; no provision is made, however, for the layman with no income. This idea of service to the man of limited means is laudable so far as it goes. And still the writer feels that these cases are being adequately cared for. The spirit of present day medicine is that no one shall be denied medical or surgical service simply because he has not the means to pay for it. There are very few general physicians or consultant physicians, who are not willing to give their service as individuals either entirely free or for a small fee, which would not pauperize the patient. As one speaker at the Wayne County Medical meeting the other evening phrased it, we are going into hysterics over the medical situation. The disaffection of the people at large towards the medical profession is more apparent than real. We do not believe they have a real grievance even so far as finances are concerned. It is possible right here in Detroit to obtain consultation at a very reasonable stipend.

Full and free discussion of the pros and contras of state medicine; diagnostic clinics; the practice of medicine by university hospitals; paternalism in medicine on the part of civic corporations, etc., should at least tend to dismiss fog and clarify the medical atmosphere.

J. H. DEMPSTER.

641 David Whitney Bldg., Detroit, Mich.
Sept. 26, 1921.

Dr. F. C. Warnshuis,
Grand Rapids, Mich.

Sept. 28, 1921.

Dear Doctor—I have been reading the M. S. Medical Journal for the past ten years, and while it has always been a good journal, the past two years have shown a marked improvement, and the character and tone of the journal has been, in my opinion, of much more interest and help to the general practitioner than it formerly was, and I really think, just between ourselves, your last number, September, is the best all around number you have ever sent out, and I feel it my duty to offer my congratulations to you for the splendid work you are doing in giving us such a real helpful magazine.

I am inclosing a little doggeral poem I sent in to the secretary of our society at the time of our June meeting at St. Joe. If you think it worth while you can print it, otherwise it will make good food for your waste basket. With best wishes for the continued success of The Journal, I remain,

Cordially yours,
N. A. HERRING.

Why I could not attend the meeting of the Berrien County Medical Society, held in St. Joseph, Mich., June 9th, 1921.

N. A. HERRING,, M. D.,
Benton Harbor, Mich.

I feel awful disappointed at the way I was knocked out
From attending of the meeting of the "Docs."
I had planned to be there early,
Get a seat without a flurry,
And be ready for the good things passed about.

After eating of the good things set before us,
And delighting at the jokes that floated o'er,
And the Witt-y sayings going,
And the Sower's jokes aflowing,
Till we cannot hold a single morsel more.

Then we'll hear about the meeting at Bay City,
The discoveries Dr. Mitchell holds in store,
Then our friend from "Old St. Joe,"
Dr. Merritt, will let go,
And we'll learn of "Prostate" troubles all galore.

Then from Dr. Sharrer next will come a "Spoke"
Drs. Martin, Tabor and some other folk
Will not let "Gall" troubles balk them,
But will wade right in and stalk them,
And we all will be the wiser ever more.

Sure some other good things will be on the program,
But I haven't told yet why I cannot go,
Sure I'm home with cough and sneezing,
Sometimes hot, and sometimes freezing,
And I'd be a pretty picture at your show.

I do not think my troubles are alarming,
But it makes a fellow feel quite down and blue,
But I know if you were here to diagnose me,
You all would say, Oh, sure, he's got the "Flue."

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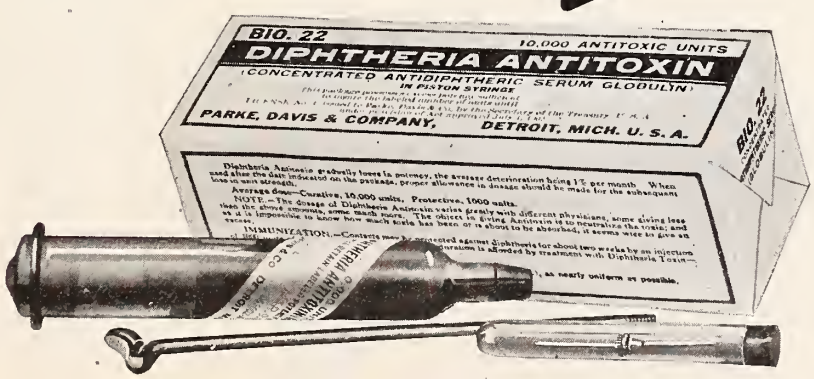

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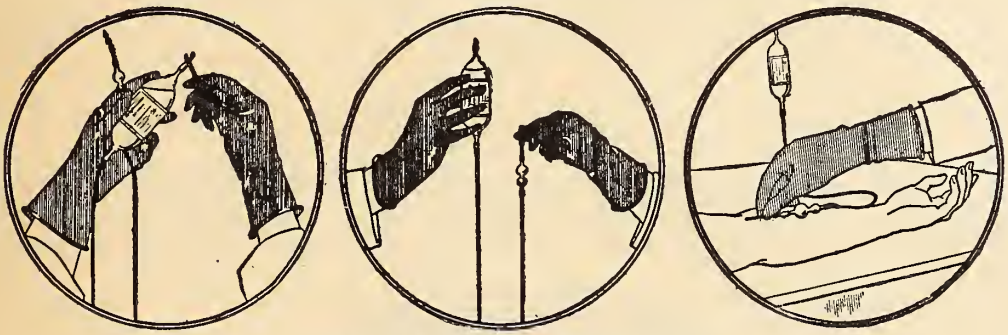

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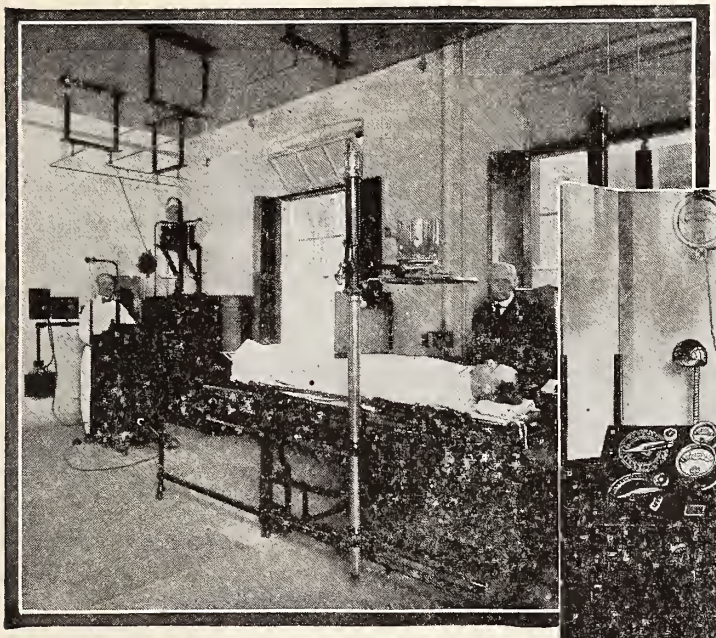

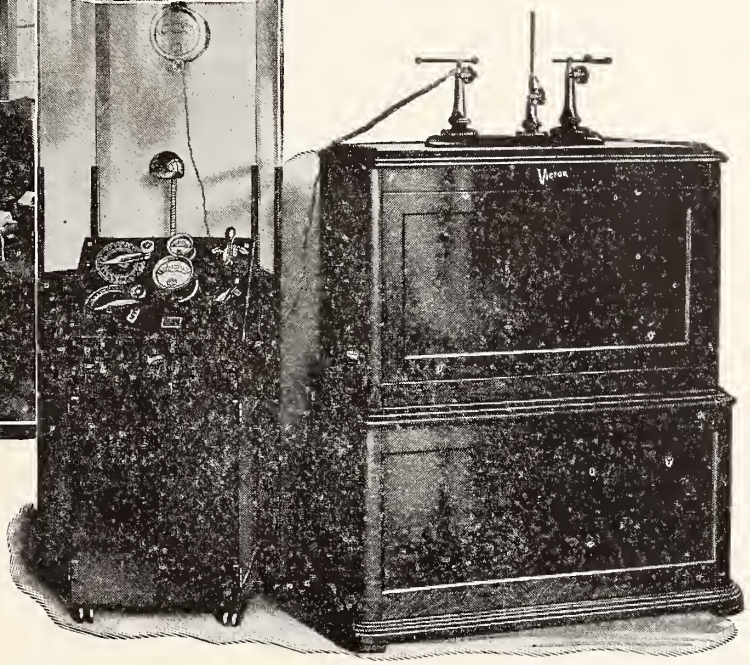

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The Journal
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ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XX GRAND RAPIDS, MICHIGAN, DECEMBER, 1921 No. 12

Original Articles

TUBERCULOUS PLEURAL EFFUSION

JOHN B. JACKSON, M. D.
KALAMAZOO, MICH.

The occurrence of pleurisy with effusion always raises the question of tuberculosis. Although pleural effusion may be caused by a variety of pathological processes, tuberculosis is by far the most common disease associated with this condition. The actual percentage of cases of pleural effusion that are due to the tubercle bacillus is estimated quite differently by different observers. But it is safe to say that the more carefully cases are studied with reference to tuberculosis the greater the number of cases which are classed as of tuberculous origin. It is often very difficult to demonstrate tubercle bacilli, but this in itself is not especially significant. Osler[1] has called attention to the fact that guinea pig injections with the fluid are often negative, because too small quantities of the fluid are injected. For instance, he cites the work of Eichorst, who demonstrated the tubercle bacillus by animal inoculation in 62% of cases when as much as 15 c. c. of the exudate was used, while where only 1 c. c. was used less than 10% of the cases showed tubercle bacilli. He also cites the work of Le Damany who demonstrated tubercle bacilli in all but four of 55 primary pleurisies by using large quantities of the fluid for animal inoculation.

Statistics show that there is a very definite relation between tuberculosis and pleural effusion. Norris and Landis[2] state that of 5,895 patients with pulmonary tuberculosis treated at Phipps Institute 23.8% gave a history of antecedent pleurisy. Bonney[3] states that out of a series of 2,070 cases of pulmonary tuberculosis, 67 present a history of antecedent pleural effusions. Cabot reports 15% of a series of pleural effusions as eventually developing other manifestations of tuberculosis. These are but a few of the many statistics which might be quoted to illustrate this point.

As in the case of pulmonary hemorrhage, so in the case of pleural effusion, the condition should be considered tuberculous until it can be proved otherwise.

Tuberculous pleural effusion must be differentiated from the effusions that accompany acute inflammations of the pleura such as occur in pneumonia, influenza, typhoid fever, rheumatic fever and the various types of septicaemia. It must also be differentiated from the effusion that takes place in malignant disease of the chest. Other conditions sometimes accompanied by pleural effusion are pulmonary abscess and pulmonary infarct and trauma of the chest wall.

The etiology of pleural effusions of non-tuberculous nature is often apparent. We are able to account for the effusion because it occurs as a complication or sequela of a primary disease process elsewhere. In tuberculous pleural effusion this may or may not be the case. The effusion may occur as a complication of recognized pulmonary tuberculosis or tuberculosis elsewhere. On the other hand many of the cases occur without any other manifestations of tuberculosis. These are the so-called primary or idiopathic pleurisies. They are the first manifestations of the disease and occur without any apparent cause.

Given then a case of pleural effusion, what are the diagnostic points by which we may postulate tuberculosis? As in all other conditions, the case history is of the utmost importance. A pleural effusion that develops in the course of well marked clinical pulmonary tuberculosis is in a large majority of cases tuberculous. Frank tuberculosis in any other part of the body speaks strongly for the tuberculous nature of the effusion. But also, if there is no history of acute pulmonary disease, no history of generalized infection with other pathogenic bacteria, no malignancy, the condition is most probably tuberculous. The great ma-

jority of primary pleurisies that without antecedent disease begin with pain and gradually develop fluid are tuberculous. The fever curve is usually characteristic. Marked leucocytosis is generally lacking. The character of the fluid is of great diagnostic value. Clear and straw-colored with a marked preponderance of lymphocytes in the smears, it strongly suggests tuberculosis. A direct search with the microscope for tubercle bacilli is usually disappointing. The animal inoculation test with fairly large quantities of the fluid is by far the most reliable diagnostic procedure. When cultures made from the fluid remain sterile, other inflammatory processes may as a rule be excluded and tuberculosis considered very probable.

As to the pathogenesis of pleural effusion, there are many interesting questions to be considered. How does the pleura become involved? Is the disease ever primary in the pleura? Why does the pleura become involved relatively so often? Why is pleural effusion comparatively rare in young children? These and many other questions might be raised all of which have to do with the pathology of tuberculosis.

A few years ago our ideas of the pathology of tuberculosis underwent a great change when the fact of the universal infection in childhood was established. Postmortem examinations and studies with tuberculin showed a very general infection in childhood. For many years the idea that adult tuberculosis was, as a rule, the result of a breaking down of an old focus was widely accepted. This carried with it the teaching that reinfection from without was comparatively rare. The dangers of infection of the adult by an outside source were virtually denied. Thus our ideas of the control of tuberculosis were much disturbed. We were told that reinfection was, as a rule, endogenous due to the breaking down of an old focus acquired in childhood and rarely exogenous. Later studies have shown that exogenous reinfection is altogether possible and must account for many of the cases of active tuberculosis in the adult Baldwin[4] in a recent paper has discussed this subject very thoroughly.

Opie[5] of St. Louis has recently made a most interesting contribution to our knowledge of the pathogenesis of tuberculosis. His observations were made by a combination of X-ray and autopsy methods. He found in children extensive foci scattered throughout the lungs with extensive involvement of the tracheo-bronchial glands. He distinguishes between "focal tuberculosis which has its origin in childhood and apical tuberculosis which has its origin in the latter period of childhood and adult life." In a series of autopsies he found that 92% of all adults autopsied had focal tuberculosis, identical with that found in children. He found that the primary pulmonary infection was not in the apices, but scattered throughout the lung.

Koch's original experiments with animal inoculation showed that the primary reaction was in the lymph nodes draining the infected area. The secondary injections in the sensitized animal resulted in a more violent focal reaction at the site of injection and less glandular reaction. The early infection in childhood with comparatively small reaction in the lung and marked reaction in the tracheo-bronchial lymph nodes corresponds to the primary injection of Koch. The apical infection in adult life with marked pulmonary involvement and less nodal reaction corresponds to the secondary injection after the primary sensitization.

These considerations have to do with the pathology of tuberculosis in a general way. Now as to the question: How does the infection reach the pleura? The most obvious answer is that the pleura becomes involved by a direct extension from the underlying pulmonary tissue. That is to say—a tuberculous focus in the lung increases in size until the pleura is reached. This would account for the cases where the pleurisy is secondary to a well marked pulmonary process. But many of the cases show little or no pulmonary involvement. The lymphatic system of the lungs and pleura must be considered in an attempt to explain the occurrence of pleurisy with effusion. Miller[6] has shown that the lymphatic drainage is from the pleura toward the hilum. He states that "the lymphatics about the pulmonary veins also communicate with the pleural lymphatics. While throughout the lung the lymphatics are, as a rule, destitute of valves, a valve is present at the junction of the venous (deep) lymphatics with the pleural (superficial) lymphatics. This valve opens toward the pleura. In the lymphatics of the bronchi, of the arteries, of the main venous trunks and the greater part of the pleura the flow is toward the hilum of the lung. In the lymphatic about the veins the flow, in those vessels which are situated just beneath the pleura and communicate with the pleural network of lymphatics may be toward the

pleura. This probably explains why we may find tubercles in the pleura and none in the deeper parts of the lung. Clinical observations and experimental inoculations show that the lung and the tracheo-bronchial lymph nodes are the points of election for the localization of tuberculous infection. If the tubercle bacilli reach the blood stream and are deposited in the lung tissue immediately beneath the pleura one might understand how we could have a marked pleural involvement without much involvement of the pulmonary tissue. Pottenger[7] believes that pleurisies with effusion that occur without much pulmonary involvement are always metastatic and are produced in this way. He believes that there is metastatic sub-pleural involvement of the pulmonary tissue at a point where the lymphatic drainage may be toward the pleura. Because he considers these cases as metastatic, he urges that where pleural effusion occurs without pulmonary symptoms a careful search be made for the primary focus.

One may consider the possibility of an extension of the infection from lung to pleura by a retrograde lymphatic flow. Such an explanation, while possible, seems unsatisfactory.

That the bacilli may be deposited from the blood stream directly in the pleura is, of course, also a possibility. Where this is the case one would expect an infection of many other parts of the body with the tubercle bacillus—that is, a generalized tuberculosis, whereas the localization in the lungs and tracheo-bronchial glands, without a generalized infection, frequently occurs.

In this connection we should consider the work recently reported by Van Zwaluwenberg[8] and Grabfield on the tonsillar route of infection in pulmonary tuberculosis. Other observers have tried to establish the tonsillar route of infection. The question would seem to depend on whether or not there is a direct connection between the cervical lymphatics and those of the pleura. If infection does frequently come about by way of the tonsils and the cervical lymphatics, and thence to the pleura, and thence to the lungs, we have a particularly fine theory for the explanation of the frequent involvement of the pleura and the marked tendency for adult tuberculosis to involve the apices.

Whatever explanation one may accept for the involvement of the pleura, it seems fairly certain that there is some other part of the body involved before the pleural effusion occurs. The pleural lesion is not the primary lesion. The lungs and the tracheo-bronchial lymph glands are the most common foci for the localization of tuberculosis. Because of this fact we may explain the relative frequency of pleural involvement.

Does the reaction of the pleura suggest previous sensitization? Is the comparative infrequency of pleural effusion in early childhood due to the fact that very young children have not as yet been sensitized? Paterson[9] of Saranac carried out a very interesting experiment. A series of guinea pigs were inoculated subcutaneously in the right groin with 5 c. c. of an emulsion of slightly virulent tubercle bacilli. A similar number of animals were used as controls. Three weeks or more after the vaccinating dose all the animals were given 2 c. c. of a virulent strain of tubercle bacilli into the right pleural cavity. The intrapleural inoculations in the previously vaccinated guinea pigs resulted in an exudation of serum, leucocytes, red blood cells and fibrin. The inoculation in the unvaccinated pigs elicited no noticeable pleural reaction. In conclusion he says: "This work helps us to understand etiologically the clinical development of pleurisy with effusion which is generally considered and spoken of as primary and preceding, sometimes by years, the development of tuberculosis elsewhere in the body. Our experiments show that such tuberculous effusions are not primary, but are due to a reinfection either from within or without, such infection taking place in a pleura rendered allergic by an already existing focus of infection." Corper and Reusch[10] have recently published a report of similar experiments done upon rabbits in which they were not able to verify the work of Paterson. If Paterson's conclusions are sound, then we may not expect pleural effusion in young children who have not had the initial lesions. Perhaps another way of saying the same thing would be to say that pulmonary lesions are infrequent in early childhood. The chief lesions are in the tracheo-bronchial glands. On account of the infrequency of pulmonary lesions we have infrequent involvement of the pleura in childhood.

In connection with this discussion I wish to present a report of 13 cases of pleural effusion which have been diagnosed as tuberculous. These cases have been observed in the last five years. They are all the cases that we have seen during this period in which we have had opportunity to make a fairly complete study including history,

laboratory examination, physical examination and X-ray examination. They were all observed at the time of the effusion. They were all cases referred for diagnosis and not for treatment. In five of the cases we had opportunity to make more than one examination. In all of the cases we have been able to know the history subsequent to the first examination.

In the series were eight males and five females. The average age was 29. The youngest was a boy of 15, the oldest a man of 58. Eleven of the cases had an exploratory puncture. The fluid was of serous nature in all the cases punctured. Five of the fluids were inoculated into guinea pigs. Four of these gave positive findings, the fifth was negative. This case later developed Potts disease of the spine and died of tuberculosis. In all the cases punctured the cellular content of the fluid was largely made up of lymphocytes.

Two of the cases had positive sputum at the time of the examination. Two cases developed later an effusion on the opposite side. The average leucocyte count in the 13 cases was 8,380. The differential count of the white cells showed an average of 25% of lymphocytes. Of the 13 cases five have died. Four cases made a recovery without other signs or symptoms of tuberculosis. One case had an associated tuberculosis of the peritoneum, but made a good recovery from both conditions. Two cases have well marked pulmonary tuberculosis at the present time—one arrested, the other progressive. One case is still under observation for her pleurisy.

A study of these cases from an X-ray standpoint shows some interesting points. Most of the cases show the focal childhood lesions with the calcified hilous glands described by Opie. Many of the cases apparently show the pleural cap described by Van Zwaluwenberg and Grabfield. Apparently it is impossible to make an accurate prognosis from the X-ray plates. It is not so much a question of the extent of the pathological process as a question of virulence and immunity. Apparently immunity cannot be estimated by the amount of calcification in the old lesions. Involvement of pulmonary tissue does not seem to offer a sound basis for prognosis.

In conclusion, I wish to call attention to the fact that the diagnosis of the tuberculous nature of pleural effusion should not, as a rule, be difficult. These cases are often called pleurisy without any effort to decide the nature of the disease. Tuberculous pleurisy is not by any means always benign as shown by the five deaths in this series of 13 cases. They should be treated on the same general principles as tuberculosis elsewhere. Unless these cases are recognized as tuberculous and treated as such the incidence of the development of further manifestations of tuberculosis will be unnecessarily high.

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AN ANALYSIS OF ONE HUNDRED AND FOURTEEN CASES OF BREECH PRESENTATION*

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During the latter part of my stay at the Long Island College Hospital, Brooklyn, I made a critical study of the breech cases delivered in that institution during my service as Resident Obstetrician and Gynecologist. Breech presentation was encountered 114 times in a series of 3,500 consecutive deliveries—an incidence of 1-30. This incidence of breech presentation is somewhat greater than is usually observed and can be explained by the fact that the Long Lsland College Hospital cares for an unusual proportion of abnormal cases, since it is the only teaching hospital in Brooklyn, a congested community of over two million people.

Because of the abundance of material which was contained in this series, I will limit this paper to a discussion of the maternal and fetal risks that accompanies breech presentation and an outline of its treatment under varying circumstances with a brief summary of the end results.

PROLONGED—FIRST STAGE—EARLY RUPTURE OF MEMBRANES

One of the striking observations was the increase in the duration of the first stage of labor over that usually noted in vertex cases. The average duration in the first stage in the primiparae was 22½ hours—in the multiparae 15¼ hours—a rather con-

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siderable increase over what is considered normal for vertex cases. This is readily explained by the fact that the membranes ruptured long before the cervix was fully dilated. In the primiparae the average time which elapsed between the rupture of the membranes and full dilitation was 9½ hours, while in the multiparae it average 5 1-3 hours.

MATERIAL COMPLICATIONS IN SECOND AND THIRD STAGES

This early rupture of the membranes in addition to causing a somewhat prolonged first stage occasionally materially interferred with the stage of expulsion, the loss of amniotic fluid permitting the uterus to mould itself about the fetus, thus interferring with its descent.

The second stage of labor, as mentioned by the various authorities, may be complicated by a premature separation of the placenta. This gives rise to moderate hemorrhage during the later part of the second stage with a persistent bleeding during the third stage. There was an excessive amount of bleeding in 17 cases of the 114 studied in our series.

CERVICAL AND PERINEAL LACERATIONS

Because of the early rupture of the membranes and the fact that the breech is a poorer dilator than the head, as well as the necessity of rapidly delivering the aftercoming head in cases of impending fetal asphyxia, trauma to the cervix is much more frequent than in vertex cases. Deep bilateral laceration of the cervix was noted in 16 cases. The matter of cervical injury may not be of much consequence when we consider the immediate result but experience has demonstrated to all of us that we cannot overlook the potential possibilities for future ill health that lie in these extensive lacerations.

Theoretically, injury at the outlet should not be greater than in vertex cases since the diameters are practically the same. However, because of the greater haste necessitated at times in the delivery of these diameters, sufficient time for proper dilitation of the outlet is not afforded and therefore extensive perineal lacerations not infrequently occur. Deep second degree lacerations were noted in 18 cases and complete tear into the rectum was noted three times.

MATERNAL MORBIDITY AND MORTALITY

The prolonged labor together with the justifiable anxiety for the life of the child leads to more frequent vaginal examination and more or less operative interference, both of which predispose our patients to infection. The morbidity as shown by the temperature charts was considerably greater than that observed in vertex cases. Eight cases showed a temperature above 101° for over two days. In five cases the temperature continued for a number of days and while our patients survived they were discharged from the hospital with the usual sequalae of puerperal infection.

In our series of 114 cases, there were two maternal deaths, none of which were due to the breech delivery perse. One case had a lobar pneumonia at the time of admission to the hospital and died on the eighth day of her illness. The second was a case af advanced pulmonary tuberculosis, death occurring on the sixth day post-partum.

FETAL COMPLICATIONS

The dangers to the fetus are asphyxia and trauma resulting from the operative interference. Asphyxia may occur early in labor, as the early rupture of the membranes interfere with the utero-placental circulation. The great danger, however, comes from the prolonged pressure on the cord by the head as it descends through the pelvis. Because of this danger to the fetus, operative interference is often indicated and the rapidity of the delivery adds trauma as one of the dangers. Not infrequently the humerus is fractured, a femur is broken or a hip dislocated. Brachial plexus injury may result in an Erbs palsy and occasionally our desire to obtain a living baby may be marred by the fracture of its skull. In our series the humerus was fractured once and in two instances a brachial plexus palsy was noted, these however, were mild, complete recovery occurring within one month after birth.

FETAL MORTALITY

In our series of 114 cases, there were six fetal deaths, 5.3%. All were due to asphyxia which had occurred either before deivery was attempted or as a result of our inability to extract the child with sufficient rapidity after the first sign of asphyxia appeared. In five of these cases the cause of death was probably due not to the breech presentation perse, but to the dystocia which resulted from the overgrowth of the fetus as in these five cases the baby weighed 10½ pounds or more. Our inability to estimate the size of the baby when it presents by the breech with the degree of accuracy that usually is possible in vertex presentations is therefore a serious risk both to the mother and to the child. If we could be certain

that no disproportion would exist between the pelvic brim and the aftercoming head the greater majority of breech infants would survive. This is demonstrated in our series by the fact that the only fetal mortality occurring where the baby was not abnormally large, was a case of moderate hydrocephalus which demanded an operative delivery.

BREECH EXTRACTION

Because of the great danger of fetal asphyxia, the necessity of breech extraction should be anticipated. Everything should be in readiness in order that no time may be lost when the indication for extraction does arise. Many infants will be saved and considerable risk to the mother eliminated if the pernicious practice of extracting all breech cases be abandoned and nature allowed to pursue her course as long as satisfactory progress is being made. Our good results are due more to this routine than to any other one factor.

It is our custom to be ready to extract as soon as the umbilicus appears, but to avoid this extraction in all cases in which pulsations in the cord are not interfered with The advantages which result from this practice are invaluabe in that 30 of the primiparae and 39 of the multiparae delivered spontaneously. Even when it was found necessary to extract the child, because of the fact that the case had been left to nature, the arms were flexed and easily handled. In only five of the breeches in this series were the arms extended and in these cases it was necessary to make traction before the umbilicus appeared.

TECHNIC OF BREECH EXTRACTION

Th epatient is placed upon a table, vulva made aseptic, the bladder emptied, the patient's buttocks brought down to the edge of the table and the thighs in moderate flexion. The breech is allowed to deliver normally until the umbilicus appears—at this time a loop of cord is pulled down and the pulsations noted—the body of the child is covered with a warm wet towel. In cases where extraction is necessary, from the time the breech appears at the vulva, the child is grasped about the pelvic girdle and traction made downward and backward. Pressure from above is contraindicated at this stage because the head, being a movable body, is shoved between the shoulders, the arms go up over the head and we have added to our difficulties the extension of the arms. The bisacromial diameter of the body is kept in the anteroposterior diameter of the maternal pelvis until the anterior scapula presents at the vulva. The anterior arm can now be easily delivered. No attempt should be made to deliver the arms until the scapulae are in view. after the anterior arm has been delivered, the child is lifted over the mothers' abdomen and the posterior arm will slip out. The baby's body is then rotated so that the bisacromial diameter now lies in the transverse of the maternal pelvis. The head will follow the rotation of the shoulders, the occiput rotating under the symphysis. Flexion of the head must now be constantly maintained. The baby is placed along the right forearm, the middle finger is put in the mouth, with the fingers of the left hand over the child's shoulders. Gentle pressure upon the head over the pubes by an assistant will aid the delivery and with the finger in the baby's mouth make extension practically impossible. As soon as the mouth is exposed over the perineum, the baby's body is raised up to allow the mucus to run out of the mouth and nostrils or it may be milked out by gently stroking the neck. With the mouth and upper respiratory passages free from mucus the baby often begins to breathe before the delivery of the head has been completed. At this point the anaesthesia may be deepened, to secure complete relaxation of the perineum, thus minimizing the amount of laceration to the soft parts. Care should be taken not to exert too much pressure upon the abdomen during the delivery of the head for fear of injury to the bladder or lower uterine wall.

CONCLUSIONS

Maternal Risks in Breech Presentation:

1. Prolonged first stage due to the early rupture of the membranes with a resultant dry labor.

2. Difficult second stage due to the moulding of the uterus.

3. Increased hemorrhage in the third stage, due to abnormal separation of the placenta.

4. Extensive injury to the cervix and perineum.

5. Risk of infection from frequent vaginal examinations and operative interference.

FETAL RISKS

1. Asphyxia, (a) due to the interference of the utero-placental circulation resulting from a dry labor and (b) pressure on the cord by the aftercoming head.

2. Fracture of extremities and skull with an occasional intracranial hemorrhage.

3. Brachial plexus palsy.

4. Operative deliveries necessitated by misjudging the size of the aftercoming head.

EXTRACTION

1. Because of the tendency towards early rupture of the membranes, the patient should be in bed from the onset of the labor.

2. Extraction should be done only when necessity demands it.

3. Pressure on the mother's abdomen before the child's umbilicus appears drives the head between the shoulders and extends the arms.

4. No attempt should be made to deliver the arms before the scapulae are outside the vulva.

5. The anterior arm should be delivered first.

6. Extension of the head is prevented and flexion maintained by the finger in the baby's mouth, aided by pressure on the head over the symphysis.

7. After the baby's mouth appears over the perineum the delivery of the head should be slow, as there is now no danger of asphyxia. By deepening the anaesthesia at this time a more complete relaxation of the perineum can be obtained, thus minimizing the amount of laceration.

DISCUSSION

I made the statement in my paper that our six fetal deaths were due to asphyxia. One case terminated in an operative delivery (the hydrocephalus) and was not brought to autopsy. The other five cases presented very interesting findings. Three cases showed no evidences, whatsoever, of intracranial hemorrhage either over the vertex, subdural, subarachnoidal or into the ventricles. The other two cases presented marked evidence of cerebral hemorrhage. However, the extravasation was found to be only over the vertex. Now, first of all, did the babies' death result from this hemorrhage or from the asphyxia or both. Secondly, do you believe with Cushing that rupture of the cerebral vessels is often the result of asphyxia neonatorum, the same as cerebral hemorrhage occasionally occurs in asphyxia resulting from the spasms in whooping cough, or as Bailey suggests, "the bleeding in this position might be due to concussion from the contact of the head with the pelvic bones in rapid withdrawal."

Harold Bailey found that out of 40 fetal deaths from intracranial hemorrhage, 17 followed normal spontaneous deliveries in which there were no evidences of asphyxia whatsoever.

In our series, the five babies that died were all extracted cases—they were extracted because of definite indications of asphyxia. The three babies that presented no evidence of hemorrhage are probably properly classified as dying from asphyxia.

I have grouped the other two cases under the same heading, as to my mind the asphyxia was, at basis, the primary causative factor.

DR. JOHN N. BELL, Detroit: I do not know that I have anything much to say. The technic described does not differ very much from that given in the text books, except perhaps delivering the anterior arm, which has been advocated by Potter recently. I think one little point in the technic might be determined, and that is whether or not there is pressure on the cord. Sometimes there will be a shutting off from the cord, but there will be pulsation from the child's heart, and we should be very careful in determining whether we have a pulsation that comes from the maternal circulation.

Another point the Doctor brought out, which I think is very important, is that we should leave these cases alone and give them plenty of time. I think many men are tempted to exert the traction too soon, which I believe is a pernicious thing. The important thing to remember is that these cases should be given lots of time even when the cord presents, so that the cord will slip down with little traction. Then you need not worry about it.

DR. MAX BURNELL, Flint, (closing the discussion). I realize that it is difficult to discuss a statistical paper and another man's results. I was hoping someone would talk about Potter's version, because that was why the study was made. In 1,113 cases delivered by Dr. Potter, 41 were still-born, or 3.9 per cent. Of the remaining 1,072 cases, 34 died within 14 days, or 3.2 per cent, making a total fetal mortality of 7.1 per cent. Our fetal mortality, with interns and residents, in breech cases was 5.3 per cent.

BACILLUS COLI INFECTION DURING PREGNANCY AND THE PUERPERIUM

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The infective micro-organisms that invade the genito-urinary tract of the pregnant woman are commonly stated to be, in order of frequency, the streptococcus, staphylococcus, gonococcus and colon bacillus. Occasionally other organisms give rise to infection during and following gestation. A great amount of research and a voluminous literature have established the relation of the first three organisms with the various septic manifestations observed during pregnancy and the puerperium. However, the meager literature relating to infections by the colon bacillus, has lead me

to report a few cases. Williams[1] in an article upon puerperal infections stated that von Franque had cultivated the colon bacillus from a case of puerperal infection, and expressed the belief that it would be demonstrated more frequently in the future. He gave as his reason the proximity of the genital tract to the rectum and the lack of strict asepsis. He stated that ordinarily pure colon infections are very benign in character, but occasionally a fatal septicemia may ensue. When the colon bacillus is associated with the streptococcus, both organisms are augmented in virulence.

It has been estimated that 1 decigram of feces contains about 20,000,000 colon bacilli. E. P. Davis[2] states it is a matter of familiar knowledge that the human intestine swarms with bacteria, notably the colon bacillus. The mechanical conditions prevailing in the abdomen as pregnancy advances are such that interference with peristalsis and accumulation of fecal matter are inevitable. In addition to this, congestion of the abdominal viscera must be present to some degree in the majority, and a combination of these is exceedingly favorable for the development of infection of intestinal origin. This may manifest itself most frequently in appendicitis, cholecystitis, infections of the renal pelvis, of the lymphatics of intestine and peritoneum, or of the blood stream.

It is my opinion that many of the septic manifestation observed during pregnancy, especially those frequently diagnosed as appendicitis and cholecystitis, are in reality pyelitis, due to the colon bacillus. T. Adeodato[3] reports four cases from his service during the last eight years, but he is convinced that routine microscopic examination would reveal pyelitis far more common than generally supposed. Even when fever and pains attract attention, they are liable to be attributed to other causes, and as the pyelitis generally subsides after delivery, it escapes detection. G. Baughman[4] has recently reported three cases of pyelitis in pregnancy, two of these cases being caused by the bacillus coli.

CASE REPORTS

The following case report illustrates how easily pyelitis of pregnancy might be confused with other acute abdominal conditions:

Case 1. G. D., aged 27, married, primipara, was seen October 28, 1920. At that time she complained of nausea, pain in the right upper quadrant of the abdomen and several slight chills. The family history was negative. The personal history was interesting because for several years the patient had attacks similar to the present one, but not so severe. After one of these attacks five years before, the appendix was removed, but without improving her condition. The menses began at the age of 14 years and had been irregular, lasting five days; the flow was moderate, but always painful. She had been married three years, and was pregnant for the first time.

Physical examination showed a well developed woman. The temperature by mouth was 103.2° pulse 120 and respiration 22. The head and neck were normal, likewise the heart and lungs. The abdomen was slightly distended and definitely rigid over the whole right side and was tympanitic. On deep pressure there was marked tenderness over the right kidney and in the region of the gallbladder. The pelvic examination revealed a retroverted uterus, softened and enlarged to about the size of a three months' pregnancy. Microscopic examination of the blood showed 90% hemoglobin, 4,420,000 red blood cells and 16,000 white blood cells. The urine, taken by catheter, had a specific gravity of 1,026, was acid in reaction, gave a negative test for sugar, a faint trace of albumin and contained pus cells and bacteria, colon bacilli were demonstrated in this specimen.

The uterus was brought forward and a Smith pessary inserted. Liquids were forced and salol and phenecetine, grains 2½ of each, were given every three hours to relieve the headache and backache. Urotropin, in 10 grain doses, was given every four hours. During the first two days while the illness was acute, the patient was kept in the elevated Sims' position, using pillows under the hips. Every two hours the patient's position was changed to the opposite side. On the third day the temperature and pulse were normal, the right kidney was less sensitive and the patient felt strong enough to take the knee chest exercise for five minutes, night and morning. In 10 days the patient was up and about her usual work and the urine was normal. The remainder of the pregnancy was uneventful, as were the confinement and puerperium. The patient took the knee chest exercise daily up to the time of confinement and began it again six days after delivery.

In reporting the above case, I have placed emphasis on the posture of the patient, for I believe it is practically impossible to clear up a pyelitis of pregnancy without proper drainage of the kidneys. This may be obtained by ureteral catheterization, but the same thing can be obtained, with no danger nor discomfort to the patient, by posture.

Pressure from the enlarged pregnant uterus upon the ureters as they pass over the pelvic brim must interfere with drainage from the kidney. The X-ray picture often demonstrates enlargement of the ureters. It is difficult to imagine that the colon bacillus ascends the urinary current and gains entrance to the pelvis of the kidney. The lymphatic or hematogenous source of infection are more reasonable. Obstruction to the ureter undoubtedly predisposes to pyelitis. Mirabau, in 1907, showed experimentally in guinea pigs, that by tying off one ureter and injecting colon bacilli into the pig's ear, pyelitis developed on the side

that was tied. In 1915, Carl Franke found a direct lymphatic connection between the rectum and the right kidney. The frequency of a right sided pyelitis in pregnancy is probably explained by greater pressure on the right ureter, due to the torsion of the uterus to the right. Although it has been shown experimentally that a healthy intestinal mucosa will not permit the colon bacillus to pass through it, marked and persistent constipation so often observed in pregnancy, may alter the intestinal wall so that these organisms do pass into the lymphaties and blood stream. A reasonable explanation of colon bacillus infections during pregnancy is this: an altered or traumatized intestinal mucosa offers the portal of entry; from the lymphatics or blood stream the bacilli gain entrance to the kidney, which is not only an excellent filter for chemical substances, but also for bacteria. Having gained entrance to the kidney and finding the urinary outlet somewhat obstructed, they thrive and do great damage to the kidney and its pelvis.

The following case report illustrates the possibility of this method of infection:

Case 2. B. A., age 33, married, multipara was seen October, 29, 1919, and complained of abdominal tenderness, frequency of urination, fever and chills. The patient had been troubled by a severe constipation of several weeks' duration and had finally resorted to strong cathartics, calomel and salts, two days previous to the onset of her illness. Her last menstruation began about June 10, 1919, and she estimated that she was about four months advanced in pregnancy. The family and personal histories were negative, except that while carrying her first child, eleven months before, she had, about the fourth month, an acute abdominal disturbance characterized by nausea, vomiting, pains in the upper and lower quadrants of the abdomen on the right side. She also had chills and fever. Her condition was diagnosed as a gall-bladder and appendix infection, but she was not operated upon. In about four weeks her symptoms entirely disappeared.

Examination of the patient showed a small, well nourished female with a temperature of 101.6°, pulse rate of 90 and respiration 20. The head, neck and thorax showed no abnormalities. The abdomen was markedly distended and tympanitic, except above the pubes where the uterus could be palpated just above the brim of the pelvis. There was marked tenderness along the whole course of the colon and the right kidney was exceedingly sensitive. The laboratory findings were: hemoglobin 80%, red blood cells 4,200,000, white blood cells 14,200. The urine was acid, with a specific gravity of 1.012 and contained pus cells. The patient was given a liquid diet, fluids were forced, enemata were used for the intestinal distention and tepid sponges for the fever. Urotropin was given in 5-grain doses every four hours for one week. In spite of this line of attack, the patient's condition became worse She developed a mild jaundice, was nauseated and vomited, the gall-bladder became very sensitive, each day following a chill of moderate severity the temperature would soar from 100 to 103° and at times at 105.2°. Dr. J. T. Connell, who saw the patient in consultation, obtained Bacillus Coli from a blood culture and from the urine. For six weeks her condition remained about the same. One week the course of the fever would seem to decline and slight improvement would be noted, but the following week would bring forth a daily succession of chills, high temperature and evidence of infection of other organs. During the second week the patient developed a cough and a pain at the right shoulder and apex of the chest. Numerous rales, coarse and moist, appeared at the right base posteriorly, but these disappeared in a few days. The jaundice and gall-bladder tenderness grew less, but the left kidney then showed involvement. Despite the high temperature and toxic condition the patient did not miscarry. During the fourth week of the illness, an antogenous vaccine was given every third day with gradually ascending doses. The reaction was marked sending the temperature to 105°, but without producing any curative effect. During the sixth week of the fever, the patient was placed in the elevated Sims' position and changed frequently from side to side. Within four days the temperature had fallen to normal and the improvement was marked. In 10 days the urine was free from albumin and pus. The kidney tenderness disappeared and the abdominal tenderness grew less. As soon as the patient was strong enough, the knee chest position was substituted for the elevated Sims' position. On January 18, 1920, the patient went into labor, although she had been well for a month, and was delivered of a 7th-month male child, weighing 5 pounds. The child seemed strong and active, but died three days later. The mother made an uneventful convalescence and has remained well up to the present time. The sudden improvement under postural treatment for drainage of the kidneys may have been a coincident, but I believe that the establishment of a freer urinary drainage changed the course of the disease.

H. Cabot[5] in a recent article on "Infections of the Kidney," favors the hemotogenous theory and believes that the kidney is infected, by the colon-typhoid group of organisms, primarily, and the pelvis secondarily. He also "believes that infection during pregnancy is very common, and because of the pressure of the enlarged uterus and poor drainage at this time, he wonders that all cases are not infected. The etiology of such infections, especially that which is so common in the first pregnancy, he is not able to explain." Is it not probable that the rigid abdominal wall forces the uterus against the ureters in the first pregnancy while in subsequent pregnancies the kidney drainage is better because the relaxed abdominal wall allows the uterus to fall forward, relieving pressure on the ureters?

I am indebted to Dr. Reuben Peterson for the privilege of reporting a third case of sepsis, due to the colon bacillus, which was observed by me during my connection with his service at the University Hospital. It is reported because it occurred during the puerperium and shows how protracted and virulent these infections may be. Inasmuch

as the history extends over a long period, I will briefly touch upon the salient points.

Case 3. R. D., age 16, single, primipara, factory worker, was admitted to the Obstetrical service of the University Hospital on October 2, 1918. The family history was negative. The personal history stated that in 1915 she was operated upon and the appendix removed and since that time she claimed to have had severe headaches. Her last normal period was March 21, 1918. The estimated date of confinement was Jan. 1, 1919. She had been more constipated since becoming pregnant and since April had noticed slight swelling of the feet. Her examination was entirely normal. The laboratory findings prior to confinement were all negative. On January 8, 1919, the membranes ruptured, but the patient did not report this to the nurses or physicians. On Jan. 13, five days after the membranes had ruptured, she complained of headache and backache and developed a temperature of 100.2°. She was confined to bed and two days later she was delivered of a male child, weighing 7 pounds and 3 ounces. The delivery was normal, but the temperature varied from 100.8° to 101.8° for two days. On January 17 the temperature reached 103° with a pulse of 114 and respirations 20. Five days postpartum, a catheterized specimen of urine showed pus, albumin and casts and the patient had slight tenderness over the right kidney, but the lower abdomen was soft and not painful. At this time she began to have chills daily, following these the temperature would range from 103° to 106°. A profuse purulent lochial discharge appeared. Twenty days after labor colon bacilli were demonstrated in the urine, also from an intrauterine culture. Four weeks after confinement the ureters were catheterized and pus, casts and epithelium were obtained from both kidneys. Thirty-five days postpartum the patient developed a pleurisy with effusion at the right base; bloody fluid was aspirated but proved negative in cultures. The temperature continued to range between 101° and 106°. Forty-two days postpartum about 100 c. c. of pus was evacuated from an abscess in the upper, outer quadrant of the right breast. Unfortunately this pus was not cultured, but two blood cultures gave negative findings. The patient gradually improved and was discharged on her 78th day, at which time the X-ray examination of the chest showed a thickening of the pleura on the right side and adhesions.

In this last case reported it is difficult to trace the origin of the colon infection. With the membranes ruptured several days before delivery and the patient up and about, it would be an easy matter for her to contaminate her generative tract. Kamperman [6] and others have shown a decided increase in morbidity rate after premature rupture of the membranes. However, the kidneys showed the first evidence of infection, but the uterus was also infected. The negative blood cultures do not prove that the patient did not have a colon septicemia, while the pleurisy and breast abscess point strongly to a blood stream invasion. No attempt was made to clear up the kidneys by postural treatment in the last case reported.

Dr. J. T. Connell, assistant professor of internal medicine of the University, has kindly given the cultural method used by him in investigating these suspected cases of Bacilus Coli infection:

"The isolation of colon bacilli from the blood in cases which appear clinically to have a colon septicaemia is not as easy as one would expect. The method used in these two cases is one that we have found to work best in isolating typhoid organisms from the blood after the tenth day of the disease. Five c. c. of blood are withdrawn from a vein, ½ c. c. and 4½ c. c. respectively, are inoculated into two flasks, each containing 100 c. c. of 1% peptone veti infusion broth with a P. H. of 7.6. These flasks are then incubated at 37°. The growth usually appears in 24 hours. The important factor seems to be the dilution of the blood with a large abount of broth, which probably weakens its germicidal power."

SUMMARIZATION

It is manifestly impossible to draw accurate conclusions from three case reports, however I wish to summarize the important features of the cases reported.

1. The bacillus coli was the only etiological agent demonstrated.

2. A history of marked constipation was given by each patient.

3. All three had suffered from attacks of pain in the right side of the abdomen. This condition had been diagnosed as appendicitis and two of the patients had had the appendix removed.

4. In two patients the onset of infection came between the third and fourth months of pregnancy, when the uterus would begin to encroach upon the ureters.

5. Pyelitis was the earliest finding in these patients.

6. The gall-bladder was apparently involved in one case; the pleural cavity in two and both kidneys in two patients. The uterus was involved in only one patient.

7. Cultures from the urine were positive for colon bacilli in all three cases; the blood was positive in one and the lochia in one.

8. Two of the patients showed rapid improvement in the kidney findings after proper kidney drainage was established by the elevated Sims' position and the knee-chest position. In the third case these postural exercises were not used.

9. All of the patients survived the infection.

10. Two had living children at full term, while one had a premature labor at the seventh month, giving birth to a child that lived but three days.

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DISCUSSION

DR. JOHN N. BELL, Detroit: One point regarding the etilogy of these colon bacillus infections in the primipara. We refrain from making vaginal examinations as much as possible. At present the routine procedure is to make rectal examinations where we think there may be trouble later on. It has occurred to me that there is a possibility of traumatizing the rectal mucosa in attempting to determine whether the cervix is obliterated. Many times there is a dilation but it is so thin that you cannot feel the edge of the os. If in attempting to do this you press the rectal mucosa very hard you may traumatize it there and open up a point of infection for the colon bacillus. I think it is well for us to keep this point in mind. Ordinarily we think if we make a rectal examination we are safe, but if we traumatize the mucosa too much it may supply a source of infection of the blood stream on account of the trauma, constipation and so on.

DR. WARD F. SEELEY, Detroit: I think one of the points that should be emphasized is the question of differential diagnosis in the cases of abdominal pain during pregnancy. I have no doubt that, as Dr. Cummings has reported, many cases have been operated for appendicitis or gall-bladder infection that were really pyelitis. I think we should remember that in many of these cases we get tenderness over the entire right half of the abdomen and rigidity over the appendix and gall-bladder regions. We ought to remember that not too infrequently we get jaundice as well. I have been misled in one case which had jaundice, the same as Dr. Cummings mentioned. Fortunately, the patient was not operated and after having two or three cases and reading up the literature, I found it was not at all uncommon in these cases of pyelitis to get jaundice. It seems to me we have to find something besides pressure and perhaps also injury to the intestines to account for many of these cases of pyelitis. I refer particularly to two cases of post-partum pyelitis which I have had in the last year. One had a temperature of 106° F. The temperature began to rise 18 days after the patient had been home and around. The right side cleared up and the left side became infected. I do not believe that we can account for so late a rise in temperature simply by pressure, for it seems to me if we were going to get that when the patient had pressure for at least six months, we should have gotten it before. The other patient was a para-one, post-partum 21 days. In both of these cases the urine had been examined microscopically pre- and post-partum and in both cases it was negative. This last patient developed pain on the right side, very severe jaundice, pain over the appendiceal region and very marked tenderness over the kidney. The temperature was only about 103.5° F. She was taken to the hospital and after three days developed a psychosis. The urine cleared up much as Dr. Cummings outlined, except that this patient was instructed to lie on the infected side. The infection cleared up by the postural treatment and urotropin, which I always combine with acid sodium phosphate, and the psychosis is practically gone. I think the whole question is one that merits careful consideration. In the last year I have seen more cases of pyelitis than in all my obstetrical experience of 10 or 12 years altogether. I have taken occasion to ask other men in Detroit if they had had more cases than usual in the last year, and practically without exception they all seemed to have had more cases in the last years—some say in a lifetime and some say for a number of years. The reason I cannot explain; some think it is an aftermath of the epidemic of influenza we have had, but there seems to have been an epidemic of pyelitis in pregnancy this past year.

Another thing in the treatment which Dr. Cummings did not emphasize much; drainage is a big portion of our treatment. Our urological friends are prone to lead us to think that the only proper drainage is by catheterization of the ureters. In my experience I have found that this is rarely necessary. During the last year we have had 13 cases of pyelitis in pregnancy. In these give patients ran a temperature of over 106° F., and six patients had pyelitis on both sides. In none of the cases has it been necessary to drain the pelvis of the kidney by catheterization of the ureters. It seems to me that Dr. Cabot of Ann Arbor has hit the nail on the head when he says he cannot catheterize a ureter without traumatism. It seems to me that the best results are obtained without catheterization of the ureters, except in very exceptional cases.

DR. G. H. WOOD, Detroit: Just a word about the dangers of traumatism by catheterization. In my early days of practice a young man came in and asked me if I took confinement cases. I said "yes," and he said, "We want you down to my house right away." It was my first case and his first experience. I found the woman had been in labor all night; she had had a mid-wife and the labor was completely suspended. The first thing I did was to make an examination. I had difficulty in determining whether it was a face presentation or a breech. Finally I concluded it was a face presentation and so knew what to do. The woman was pretty tired, so I allowed her to sleep for two hours and then gave her quinine and got her to walk around a little. Within a little while labor started and in good time I delivered her, and after delivery was over I had another job on my hands explaining how the skin got rubbed off the eyelids and eyebrows. My examining finger was a little too harsh for the baby's skin and took off the cuticle. If it would do that on the external surface there certainly would be traumatism of the mucous membrane.

DR. EDWARD J. DOUGHER, Midland: I remember a case a long time ago where I found twins. A midwife was there who said, "I got one and there is one left for you." I asked her how things were coming. Her hands were all blood, she had an old dirty towel, but she put her hand right in the vagina and said, "It's coming all right." I was scared to death to touch the woman, but the youngster came, there was no infection and they got along all right. The woman was up and around within a week and got along well. But what disturbed me was one of my own cases about four months ago. That case had a nurse to attend her and in a couple of days the temperature came up. I felt pretty bad and spoke to the woman's husband and her father and asked them to send her to the hospital. They saw that I felt pretty bad about it, but said, "No, if this woman is to die, she will die at home, not in a hospital. You have to attend her." The temperature went up to 105° F. I called another doctor, but gradually at the end of about three weeks she was up and about all right.

What I wish to call attention to was that this nurse had a method—I do not mean to say that all nurses do anything of the kind—of applying a T-band with a heavy pad very tight, and I believe that there should be free drainage of the lochia. I think that absorption of that may mean a whole lot, and that T-bands, if used, should not be tight.

DR. HOWARD H. CUMMINGS, Ann Arbor, (closing discussion): Dr. Bell has brought up the much discussed subject of rectal vs. vaginal examination. I will not spend much time on that, for many of you who have used the vaginal examination for many years get along all right while some of the younger men feel that the rectal is better. I doubt if the finger is well lubricated that you produce more than very slight traumatism. I think that a rather careless and repeated vaginal examination, even though we think the parts

are clean can carry colon bacilli up into the canal. However, I do feel that these colon bacilli get into the intestinal wall, possibly by trauma of the hand, but more often by diseased conditions of the intestinal wall itself.

Dr. Seeley called attention to the differential diagnosis and there is one thing that we must think of. A patient with pyelitis may have every symptom of appendicitis or cholecystitis. There is one thing you must have, and that is a catheteriz d specimen of the urine and examine it carefully. That will nearly always solve the problem.

I have laid some emphasis on the postural treatment, for I believe that is the important thing. Genito-urinary surgeons think we should pass catheters, but few of us do that well. You can treat the patient by the left Sims position, no matter how ill she may be. The uterus falls away, relieving the right ureter, and vice versa when she is turned. As soon as she is strong enough, she should use the knee-chest position and one will get free drainage of the ureters and the symptoms will clear up.

Dr. Seeley also mentions the frequency of these cases. We have had our attention called to these and now are alert. I wrote the report of these three cases simply to stimulate interest in this field because the literature is meager. I believe if we will follow out these cases and make urinalyses we will find that many cases of pain during pregnancf are due to a colon bacillus infection.

CAESARIAN SECTION—SOME OF ITS INDICATIONS—AND REPORT OF CASE

ROWLAND F. WEBB, M. D., F. A. C. S.
GRAND RAPIDS. MICH.

In considering the question of caesarian section and indications for the operation, we have changed the viewpoint in the past 10 or 15 years. Formerly, whenever a caesarean operation was performed, it was hearlded far and wide. Few were performed, and a large percentage of that few died. Then again we were afraid to do a caesarean and many patients in labor died without anything being done.

Caesarean sections were performed on patients having been in labor for days, probably after numerous attempts at forceps delivery. This naturally increased the mortality and made us skeptical. However, as time went on and surgical technic was developed, certain conditions became indications for caesarean section.

Later, vaginal caesarean section was advocated as being better because it could be done extra-peritoneally. This is a much more difficult operation to perform, takes longer, and because of the longer time required under anaesthesia, is more dangerous to the baby. What we want is a living child, if possible, and the most certain way of getting a living child, and at the same time conserving the mother's life, is by the abdominal caesarean section.

The extra-peritoneal abdominal caesarean is advocated by DeLee. This is performed by stripping the peritoneum from the bladder, up over the uterus, and the incision made through the body of the uterus.

In my work, caesarean section has been performed 21 times, the classical way for:

Eclampsia, nine times.
Placenta Previa, seven times.
Contracted Pelvis, five times.
With all viable babes living.

The only patient lost was the first case. She died from sepsis caused by many attempts at forceps before she came to the hospital for operation. The baby lived.

I would like to present one of my cases, which on account of the complications, is rather interesting, and also to bring out a discussion as to what you would have done in a similar case.

REPORT OF CASE

History: Mrs. H., age 24, primipara, eight and one-half months pregnant, gave a negative family history. The previous history was of no importance. The urine was normal during the pregnancy, the latter four weeks showing a slight trace of albumen.

On March 31, 1917, the patient complained of frontal headache and extreme restlessness, which came on suddenly after falling on the cellar floor the previous day. She felt fetal movements at this time, but not as active as before. She was instructed to remain quiet; another urinalysis was made, which revealed nothing unusual.

She complained of a slight headache, dizziness and spots before the eyes. She was put to bed and given a saline purge and liquid diet. Urine examination showed a larger amount of albumen present, about eight-tenths of one per cent. The following day she had a slight convulsion. My assistant was called and found her in a state of coma, face swollen and cynotic, eyes puffed and respiration stertorous. The pulse 90 was full and bounding and rectal temperature 101. Shortly after my assistant arrived, the patient had another typical eclamptic convulsion. It was advised that the uterus be emptied promptly and she was taken to the Butterworth hospital, having another convulsion on the way.

On entering the hospital the pulse was 84, rectal temperature 101.5, respiration 24, blood pressure 155, and in a deep coma. Rectal examination showed a long rigid and undilated cervix. Fetal heart sounds were not positively made out. Due to the condition of the cervix, the soft parts and pelvic muscles being intact, and with the hope of possibly securing the living child, it was decided a classical caesarean section to be the operation of choice. Another convulsion occurred while the patient was being placed on the operating table.

Operation: Under ether anaesthesia, caesarean section was done, the delivery of the child requiring only one minute. The placenta was delivered, uterine incision closed with chromic catgut interrupted for the muscle and plain catgut for the serous layer.

The omentum was pulled down, and tacked over the sutured uterine incision. Abdomen closed in usual manner. Due to the patient's condition, the operation was completed in fair time, requiring 18

minutes. One ampule of ergot was given in the gluteal region when the operation began and a second one in closing the uterus. The baby was that of a full term fetus, well developed, with the appearance of having been dead about two days. The placenta had been detached from the uterus over an area twice the size of a silver dollar in the extreme fundus, otherwise the placenta was normal. The patient returned to bed in fair condition.

Post-operative History: One convulsion recurred two hours later, much less severe than the previous ones, followed by a coma for 12 hours; after which the patient gradually gained, and was comfortable except for a slight headache. Ampule of ergot given every four hours for the first day, morphia for pain and the usual post-operative care. The fourth day the patient felt much improved, blood pressure 145. On the fifth day a slight rise in temperature was noticed, and along with this signs of a phlebitis of left leg. On the next day phlebitis was more marked and involved the entire left leg, spreading to the right two days later. This cleared up entirely in three weeks. On the sixth day the patient wakened in the early morning, and complained to the nurse as of the feeling of a sudden blow to the head, and inability to move the left arm and leg.

The house physician was called, an examination revealed left hemiplegia, left hemi-anaesthesia, left facial paralysis, and a right oculo motor, third nerve paralysis. The pulse had dropped from 96 to 56. Systolic pressure had fallen to 118. A diagnosis of apoplexy was made. For further diagnosis and to ascertain the presence of a hemorrhagic variety of apoplexy a spinal puncture was made, 50 c. c. of blood tinged spinal fluid under high pressure was withdrawn. Wassermann and bacteriological examinations were negative.

The patient felt greatly relieved from the intense headache caused by the intra-cranial pressure. Spinal puncture was performed each day for four successive days, each time about 50 c. c. were withdrawn. On the last puncture a clear fluid was obtained and headaches had disappeared. One week afterwards she was able to move left arm and leg. At the end of the third week all muscles active but weak. The patient left the hospital six weeks after operation and allowed to be up in a chair. Six months from the date of operation the woman was doing most of her regular housework, which did not require fine co-ordinated movements. Sensation normal. The facial muscles were the last to clear up.

COMMENT

Whenever we think of eclampsia, whatever the end results may be, we think chiefly of two things, the cause and the treatment. The pathology in this case, however, plays an important part, and to reveal its nature, together with its complications, is the main purpose for which this paper is written.

In discussing the etiology, we are at a loss as to the direct cause. We believe that it is a toxemia, the source of which we do not know. Pinard argued that the liver was at fault. Ahlfeld mentioned, in 1894, that the child and the placenta were the origin of the toxemia. The kidney has been accused and Lange believed the thyroid gland to be the primary source of the toxemia. Various writers have held other ductless glands with altered function as the etiological factor. In spite of the great number of theories that have been advanced, and the great amount of work that has been done, the real cause of the disease is unknown. (DeLee.)

DeLee puts much stress upon cases in which the fetus and the placenta may be the source of the toxemia; and in this case where the mother had received a fall, the fetus dead at operation, and palcenta partially detached, I wish to mention the possibility of this serving as the primary source of the toxemia in this particular case. However, the reverse may be true that the fetus was dead as a result of the toxemia.

This case of cerebral hemorrhage is one of those rare types of vascular lesion which occurred in the crus cerebri, it is one of the types of crossed paralysis and produces what is called Weber's syndrome. The lesion is in the right crus, affecting the third nerve mucleus on that side, and the fibers of motion before they have crossed to the whole left side of face and body, and the sensory fibers coming from the left side after they have crossed. The face was of the upper neuron type of paralysis, more complete in the lower portion than in the upper; however, the left eye could not be closed. Of the right eye there was ptosis, dilated pupil, and external squint. In these cases of eclampsia with much blood in the spinal fluid it is not unusual to have multiple small lesions scattered throughout the brain, and this may have been the case in addition to the lesion in the right crus. Schmorl found small and large hemorrhages of the brain in 58 of 68 autopsies. DeLee mentions that apoplexy may occur as a result of hemorrhage into the ventricles.

The chief object of the treatment of an eclamptic is to empty the uterus and the method which offers the best prognosis to both the mother and the child should be the method employed. This prognosis depends upon many things. It depends upon the duration of pregnancy, the condition of the cervix and the pelvis, the general environment and the skill of the operator. If you have a dilated or dilatable cervix with normal pelvis and head engaged, secure sufficient dilatation and deliver; if not engaged do a version and deliver. If a long rigid, non-dilated cervix either a vaginal or abdominal caesarean section, without a doubt is the best method of delivery.

Whether I do a vaginal or abdominal, depends much upon the condition of the child. The mortality of the two vary as to the various operators. Both have their advantages

and their disadvantages. The chief advantage of the vaginal caesarean is that it is an extra-peritoneal rout. It has the disadvantages of being more liable to infection and sepsis and gives a higher mortality to the child. To the child the abdominal rout offers much the better prognosis, and in any case where there exist hopes of securing a living child, I always prefer doing the abdominal caesarian.

I wish to lay stress on the importance of rapidity in this operation. It means much to the life of the child and does not harm, but only benefits the mother. There should be no delay in delivery of the child. I always try and usually do make the uterine incision sufficient length with the first stroke of the knife to permit an easy delivery. It is time lost in lengthening the incision at either end with scissors and should be avoided.

As already mentioned, I do not deliver the uterus. I do not use a tournequet about the uterine lower segment. I do not wipe and rub with force the uterine mucosa with gauze, but on the other hand, gentleness without trauma should be observed.

And last, but not least, in abdominal caesarian section it is of prime importance and great necessity that the hand be kept out of the vagina. By ordinary skill and practice, rectal examination will reveal sufficient knowledge of the state of the cervix. Vaginal examination predisposes infection, sepsis and other complications by either direct contaminations or by stirring up bacteria of previous low virulence which are constantly present in the vagina, making them more virulent and thereby giving rise to trouble.

It might be well to add here that the same patient became pregnant again and was due to be confined May 4, 1920, three years following her first confinement or operation. Since she had already had one caesarean performed, it was considered best not to risk a hard labor, but to perform another caesarean at nearly full term.

The date for operation was set for May 3. Operation was performed at 7 p. m. The patient, however, began to have pains about four hours before operation. The cervix had dilated to about the size of a 50-cent piece, as determined by rectal examination.

Abdomen was opened to one side of old scar and no adhesions were found in abdomen. The scar was plainly visible on the uterus and no signs of thinning were in evidence. In this particular case the woman might have gone on to normal labor without rupture of the uterus at the site of the old scar. However, one would not care to risk a patient going through a long labor following a previous caesarian, especially one in which the cervix had not been dilated and the vaginal walls stretched by a previously normal confinement.

The patient left the hospital two weeks after operation, making an uneventful recovery, except for an attack of biliary colic which lasted for two days. One week following her arrival home she developed a phlebitis of left leg, which cleared up in 10 days.

Just a word about the paralysis which developed after the first operation. Recovery was very slow. The foot and leg recovered first, but patient walked with a foot drop for about one year. The hand recovered slowly and could be used for work which did not require fine co-ordinated motion. Gradually the finer co-ordinated movements returned and she is now able to do fancy work and crochet without tiring.

Has been in perfect health since last caesarean. The question now comes up, is it right that we should remove both tubes to prevent further conception, provided the patient is willing, or should we let her go without any further operative work and risk another pregnancy with another caesarean?

The proposition has been put up to the patient and she has given no answer as yet. She desired children of her own, and probably would be willing to risk another caesarean operation to get another child.

DISCUSSION

DR. JOHN N. BELL, Detroit: I am very much interested in this subject. It seems to me that the question that confronted Dr. Webb in this case was what was the best procedure for opening the uterus. The woman was not in full term, the cervix was not obliterated, she had not been examined vaginally and the child was dead, but this was not definitely known. I think the Doctor was perfectly justified in doing the abdominal caesarean section. If she was a multipara, the probabilities are that I would have done a vaginal caesarean section. However, it would nessarily have to be borne in mind that there was a question as to whether the child was living. If the child is living the abdominal section offers a much better chance for the child to survive.

I have had a case which was almost a duplicate of the Doctor's, in St. Margaret's Hospital, except that we knew that the child was living. Notwithstanding that, we allowed her to bleed quite freely. At the end of the operation the systolic pressure was 100, but at the end of five hours it had increased to 195. She then developed convulsions again and had, I think, three, but not very severe ones. The procedure then was to remove more blood by the vein and inject some saline solution, and she recovered.

The question as whether or not to allow the patient to deliver herself in the second pregnancy is a moot one. Some physicians recommend allowing them to do so. I have had one case where I took that chance and the patient got through beautifully. The patient had just a minor small pelvis and she had a small child. Each case is a law

unto itself and the question of judgment must determine what to do.

I think the Doctor's case is very interesting and believe that he did just the right thing.

DR. C. E. BOYS, Kalamazoo: The more I think about the vaginal route the less I think of it. The mortality from the abdominal section is no greater than in some of the ordinary everyday operations, and why we should go to the difficult, traumatizing operation, especially in primipara, both to the mother and baby which the vaginal route entails, I cannot see. I think the precautions suggested in his remarks relative to the condition of the patient preceding the abdominal section were well taken although I have never had any scares about examining vaginally. I cannot yet appreciate the need of no vaginal examinations. I have never yet had any hesitancy about making vaginal examinations, and have never regretted that I did. I take for granted that the conditions under which you do the vaginal examinations are satisfactory to you from the standpoint of sepsis. I never examine a woman anyway until she is ready for operation or labor. I think the point Dr. Webb made in reference to most simple and least exhausting delivery was the best thing that could be done, and that is what he proved.

DR. H. W. YATES, Detroit: I cannot see why he should ask for any advice in the management of the case he reported, because it seems to me it was handled beautifully.

I was interested in working out the question of hospital standardization, however, a short time ago. This is no reflection on his paper. One or two of the hospitals had been doing a good many caesarean sections, as shown by their records. After the management as outlined by the American College of Surgeons in the standardization of hospitals it showed a very decided lessening of the number of caesarean sections after this than had been done formerly, with the same number of cases delivered. I think this is rather significant that many cases are brought to caesarean section without a real indication for it—without a deciding of other possibilities. I know in many instances I have been asked to see cases that were thought to need caesarean sections when just before deciding I would change their position or something to show that they really had a proper pelvic capacity and those patients would go on to normal delivery.

In other words, I am inclined to believe that more caesarean operations are done than are necessary on certain occasions.

I am rather inclined to disagree with Dr. Boys. I think there is a definite field at times for vaginal section. I do not think it is a mutilating operation. There is no reason why in early cases of placenta previa you should hesitate to do it; in small children at maturity, or in seven or seven and a half months' pregnancies, or in viable children or those who have just reached viability, the caesarean section vaginally is a very happy solution. They are not accompanied by shock, as is the abdominal route, and this is especially applicable to vaginal caesarean section. I will not go into the question of differentiation, for it is not pertinent here, but there are certain very definite indications for vaginal section, and I am sure those who attempt to do it in certain cases are pleased with the result.

I think the complication of hemiplegia in the Doctor's case was very interesting. I have never seen that but once and that was in the hospital. We were not able to study her as to return of her affection, for she died very promptly. I am certainly interested in the complication and if the Doctor can give us any light on it, I would certainly appreciate it greatly.

DR. ARTHUR E. LEITCH, Saginaw: I was very much interested in Dr. Webb's paper and in the post-operative treatment. The case he reported had a thrombo-phlebitis. A suggestion was made to me by Dr. Coffee of Portland last fall which was that every six hours we turn these patients into a different position. First on the right side with the legs at right angles, and six hours later turn to the opposite side. He reports that he has never had a case of thrombo-phlebitis and that is a complication we very frequently get in caesarean section.

DR. ALEXANDER M. CAMPBELL, Grand Rapids: The cases of caesarean section are very instructive in the after-light. I recall the case of a primipara of 40, who had been in labor for 18 hours, with very little progress. She had not been examined vaginally at all and the indications were that the pelvis was slightly under normal, but there was nothing to indicate that the case would not go through in a normal way. She had been in labor for 18 hours when I was called in. She was fatigued, but very anxious to have a living child. The question was put up to her and she preferred a caesarean section. We performed a perfectly classical caesarean section. There was nothing unusual about it except that she was fatigued and nearly 41 years old. We noticed that her stomach and colon were dilated and the woman died in seven days after the operation from a paralysis of the entire gastrointestinal tract. The stomach was dilated, the colon dilated. It would collapse, but in two or three hours would balloon right up again. The bowels would move, but we never could overcome the paresis of the gastrointestinal tract, and to the best of our knowledge the woman died as a result of that paralysis. She had no peritonitis, had a slow pulse, and did not vomit at any time. The stomach would dilate, we would wash it out with an enormous amount of fluid, and we kept this up for a week, but the woman died.

The lesson I learned from that case was that in a woman of 41, after being in labor for 18 hours, there was probably some safer way for the mother than to empty the uterus by means of a caesarean section.

THE "BURIED LOOP" OPERATION FOR SHORTENING THE ROUND LIGAMENTS OF THE UTERUS

JOHN N. BELL, M. D., F. A. C. S.
DETROIT, MICH.

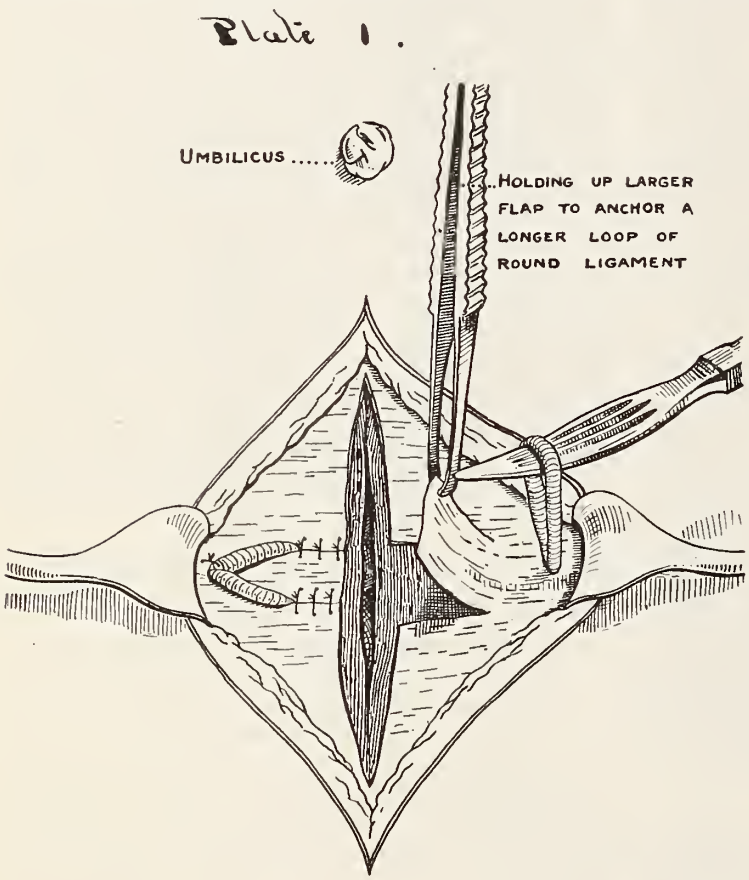
It is not the intention of the writer to enter into a discussion of the technic, merits or demerits of the many operations that have been devised for shortening the round ligaments of the uterus, as they are more or less familiar to you all.

The multiplicity of surgical procedures that have been advocated and employed for the purpose of shortening the ligaments is, however, the best proof that there is something lacking in the results obtained.

That a wide diversity of opinion exists in the minds of some of the most prominent Gynecologists of this and other countries, regarding the efficacy of the different operations that have been employed for this condition can be shown by a reference to some of the more recent writings on this subject. For instance, in the "Atalas of Operative Gynecology" by Hirst of Philadelphia, we read as follows:

"The old suspension operation introduced into this country by Kelly, the operation of Dr. Gilliam's with all its modifications, Baldy's operation, Webster's operation, Coffey's operation, as well as the older operations of Dudley and Mann, have all been tried and given up."

Also in "The Principles of Gynecology" by W. Blair Bell of London, England, under the heading of "Gilliam's Operation," we read: "This operation is employed by most of the best operators of America and the author has, after an extended trial, become convinced of its merits."



The writer has, for some time, believed the operation of Dr. Gilliam to be the nearest approach to a satisfactory procedure for eliminating the slack in these ligaments, and yet it has been my misfortune to have an occasional failure.

This failure, I am inclined to believe, was due to faulty union between the serous covering of the ligament and the aponeurotic fascia, to which it is attached, allowing the loop to slip back gradually into the abdominal cavity, as it does not seem likely the heavy proximal portion of the ligament could become stretched and lengthened out sufficiently to allow the fundas to drop back into the retroverted position.

How then can we prevent the loop from slipping back into the abdominal cavity?

With this thought in mind, I have devised the following operation, which, with your permission, I will briefly describe and submit for your consideration:

The usual medium incision having been made, the necessary attention given the pelvic pathology, the round ligaments are then brought out through a perforation of the abdominal wall as in the Gilliam operation. A strip of fascia from one half to one inch in width is now cut transversely and dissected from the rectus as illustrated in drawing No. 1. The fascial flap is drawn through the loop of ligament, replaced in its original position and sutured there. Thus you will observe, the loop of the ligament is buried underneath the fascia and cannot escape to slide back into the abdominal cavity.

Not infrequently the loop of ligament on one side is shorter than the other. Where such a condition exists, the fascial flap can be cut narrower. In other words, the flap can be cut to accommodate the length of loop.

It will be seen, therefore, that we have the freshly cut edges of the fascia lying in apposition, and union should be firm and prompt.

It is, of course, understood that all necessary plastic work should be done in the perineum and vagina.

At first glance, it may seem there is too much surgery involved in doing this operation, but when one considers the permanent results obtained, it would seem the extra time consumed in the operation is justified.

DISCUSSION

DR. R. F. WEBB, Grand Rapids: The matter of shortening the round ligament, it seems to me, is going through some sort of a change. For many years I have used the Guillaume operation and am not at all convinced that it is an operation of merit. A man told me not long ago in Chicago, that he

believed the old ventral suspension was the best. I am sure my mind is open in this regard and I would like to know something more about it.

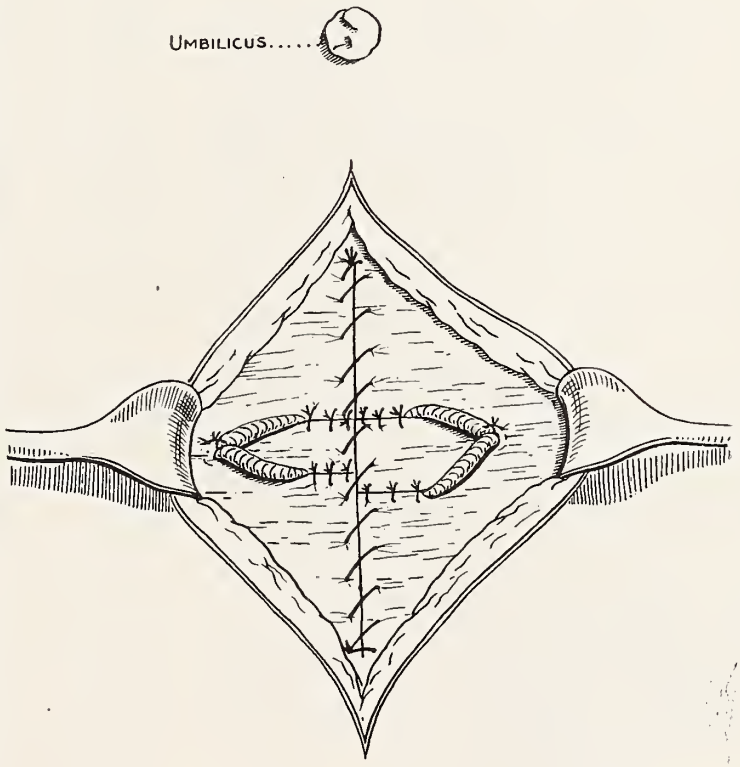
DR. RICHARD R. SMITH, Grand Rapids: I went through the different stages of doing these various operations for displacement of the uterus. Many years ago I did the suspension and fixation the Alexander for certain cases, and later on the peritoneal operations—more especially that of Webster and Baldy, and finally came to the intramural shortening, known by a great many different names, all the operations varying in details, but each one having the same principles behind it. I have had no reason to change from this operation. The operation consists of accurate examination of the uterus and appendages, of catching the round ligaments in a few guy sutures and of drawing all the fundus of the uterus toward the abdominal wall. We are guided somewhat by how the uterus comes up under the belly toward the anterior wall. If the fundus of the uterus remains more or less retroverted and does not come sharply up toward the abdominal incision, we judge that the round ligaments are not giving the pull they should upon the tendons of the uterus, and we attach the ligaments nearly around the tube. This gives the proper axis to the uterus. This is done by stitching the tube by a line of fine chromicized sutures. We do not wish any more tissue inside than we can help. Then we cut up the guy sutures and draw them into the abdominal wall beneath the fascia, where they are attached. It is very easy to retract the abdominal wall in such a way that we can attach these sutures up in the abdominal ring. Then we put in two loops of sutures, drawing them upward toward each other on the under surface of the fascia, so as to reattach themselves firmly. I think in doing this operation one learns a good many things as he goes on. In the first place, seeing that the matter of the axis is correct. Second, the thing of drawing it too tight; the thing is to draw the uterus just into its natural position. Let it lie well away from the abdominal wall and produce under restriction. That holds the uterus very well and has none of the objections that other operations have. If the indications have been right the returns are very rare and the operation seems to be as nearly ideal as anything we have.

DR. H. WELLINGTON YATES, Detroit: I heard Dr. Bell's paper before the Association of Obstetricians and Gynecologists a year ago and was much delighted with the new operation for round ligaments. I had not yet learned all the 57 varieties of the old group, but now that we have Bell's we have inspiration to go on.

Personally, I am in accord with the technic outlined by Dr. Smith and in my cases it has worked fairly satisfactorily. I say "fairly" because we have 58 varieties now, none of them working out in each individual case. I think the principal thing, as Dr. Smith pointed out, is the question of traction. If we find out just where the uterus lies and if the traction does not pull it up into fairly good position immediately back of the peritoneum, we may be sure that within a short time it will have reverted to its old position. I am inclined to think this may be a defect in the operation rather than making the sutures too taut. I think if it is overcorrected it is more likely to stretch out than if left lax, when it surely will return to its old displacement. One thing I have seen a man in Buffalo do, and that is that wherever any operation of this sort is done it should be supported by the repair from below and also by a suitable pessary worn for a few months. It may be taken out occasionally, but should be returned. I am in sympathy with that procedure and believe it is a good feature.

DR. C. E. BOYS, Kalamazoo: I think this operation is more adjustment of the tissues than anything else. This one looks as though it surely would hold it. I do not know what the percentage of our recurrences is because the anchorage slips or because it stretches out. I have had some slips, I suppose, we all have, but I have had some cases that have stood the test of two or three pregnancies fairly well.

Plate II.



"Buried Loop" Operation
For Shortening Round Ligaments of Uterus

There is one point in regard to any shortening not in this one particularly, except that the figures emphasized by Dr. Clark of Philadelphia recently, that the shortening of the ligaments in order to get the axis is sometimes advisable.

DR. WARD F. SEELEY, Detroit: One point in the technic is the question of leaving the loop after the Simpson operation as Dr. Smith brought out. One method of getting away from that is by passing a hemostat between the layers of the bread ligament and making a puncture at the location of the stay suture. This does away with the loop at the internal ring absolutely. There have been cases reported of relapse because of slipping where the loop was left at the internal ring.

DR. RICHARD SMITH, Grand Rapids: There is no loop at all in the operation I described, but in the old Guilluame operation.

DR. JOHN N. BELL, Detroit, (closing the dis-

cussion): I realize that this is a sort of threadbare subject, but we do all of us occasionally have a patient consult us who has had this operation, and find she has had a retroverted uterus. We advise shortening the ligaments, and are told that she has had this operation. This happens every once in a while. Now just what causes the slipping of the ligaments—whether it is slipping back of the ligaments or not, I do not know, but the fundus is back where it was before, and it was with the idea in mind of preventing the loop from slipping back that I evolved this plan. Whether it is a lengthening out of the ligament, I do not know, but it hardly seems possible if it is brought up and remains there that it can stretch sufficiently to allow the uterus to come back.

I only started this operation about a year and a half ago, and have examined only four or five patients since operation. None of them have had the test of pregnancy, but I do not fear that. The question of whether or not the fundus will stay forward is what I want to get at—an operation that will make this nearly a 100 per cent procedure.

I think most of us in opening up the abdomen after a Webster-Baldy operation have found the uterus right back where it was. Recently in the Journal of Gynecology and Obstetrics an operation is described whereby a notch is made and stripped off from the ligament and then the flap buried and covered over, but there you still have the continuation of the internal ring. He puts in a catgut suture to hold it there temporarily, but in my opinion this is very likely to gradually stretch and drop back. Some way of making this a permanent procedure should be devised. If there is too much surgery about it, well and good, but an operation that will give a permanent result is what we want. I do not do many operations for shortening the round ligaments unless there are some other symptoms. Many women have a retroverted uterus that should not be operated. I do not believe in promiscuous operating just because of retroversion. I think a patient should have some symptoms before we are justified in operating. This paper was just to give a method of holding the fundus forward so that it will not drop back later on.

Following the operations with shortening of the cervix, in the majority of these operations the patient will complain of pain down around the rectum. Just why I do not know, but I have always felt that it would restrict the rectum and produce constipation. The lifting up that you get in the Guilluame operation is a good thing. Of course, we always repair the pelvic floor; that is understood.

I was much pleased with the discussion and wish to thank the gentlemen for it.

ABDOMINAL ANGINA

A. W. CRANE, M. D.
KALAMAZOO, MICH.

This paper is to preface the report of a few cases which are well known, but not common and which are of great roentgenological importance, although giving no roentgen signs.

There are many diagnostic pitfalls in the X-ray examination of the gastro-intestinal tract. These are mostly bridged by the clinical history of the case. Abdominal angina is one of these pitfalls, but the clinical record must extend beyond the abdominal cavity. It must, in fact, include the entire case; a little history is a dangerous thing.

One of these patients may come in with a history suggestive of gastric or duodenal ulcer; another with a history indicative of gall-stones, and yet another may give a history pointing towards appendicitis. But these patients will have no ulcer, no gall-stones, no appendicitis. In due time they are likely to die in classical attacks of angina pectoris. But before this final tragedy they are more than likely to be referred to the roentgenologist for a demonstration of the ulcer, the gall-stones or the abnormal appendix. In the face of a convincing history, the roentgenologist may strain his eyes into seeing some slight nichen sign, some peristaltic anomaly, some deformity of the duodenal bulb, some faint ring shadow of a nebulous gall-stone or some peculiarity of an unsuspecting appendix. If finally a roentgen report of negative findings is submitted, the surgeon is likely to view it as one more piece of evidence of the limitations of the X-ray. Thus the poor patient too often wends his way to the operating table because the X-ray found something that did not exist or because the surgeon was convinced that the X-ray had not found something that did exist.

A case of abdominal angina may simulate gall-stone colics, even to the point of showing slight but definite jaundice. When angina is known to be present there may often be a doubt as to whether the patient may not also have gall-stones. Likewise with known angina there may still linger a suspicion of concurrent gastric or duodenal ulcer or of appendicitis, according to the type of the angina. Considering that these cases are poor operative risks a true diagnosis is especially desirable.

The most characteristic form of the disease is dependent upon exercise. An attack may be induced after any meal by sufficient exertion, but if the patient is quiet no abdominal pain results. The attacks are independent of the character of the food. When the pain begins, rest is the chief requisite for complete relief, but it is a curious fact that the belching of gas may in some true cases be excessive and abruptly terminate an attack.

Abdominal angina must be differentiated from the gastric crisis of tabes, from the visceral crisis of erythemas and from those of angioneurotic oedema. In rare instances the diagnosis will be confused by pancreatitis, by the very small epigastric hernia, by lead poisoning or by arterio-mesenteric constrictions, all of which are roentgenologically silent. Causes of abdominal pain, such as vertebral disease, diverticulitis, ob-

struction, etc., are not here enumerated, because they may be demonstrated by X-ray methods.

The most interesting and confusing of these various causes of abdominal pain are the visceral crises of the erythemas. The first cases reported in America were by Osler, whose early reputation was greatly heightened by two brilliant papers on this subject published in the American Journal of the Medical Sciences. Since Osler's observations, the phenomena of proteid sensitization and anaphylaxis has been developed and serve to explain much of the mystery which fascinated our medical forefathers. At the present time these visceral crises are classical examples of the fact that abdominal pain does not always mean abdominal disease.

Although abdominal angina gives no X-ray signs below the diaphragm, it is possible in a proportion of cases to show a dilatation of the aorta especially of the descending thoracic or a cardiac outline more or less characteristic of aortic valve disease. For enlargement of the heart, the Bardeen method is here of great service.

Out of the extensive literature we may select the account in Lockwood's Diseases of the Stomach, Vol. V., of Monographic Medicine, and the Mayo Clinic, Vol. 1910 and Vol. X. The term abdominal angina is not always to be found and the subject may be discussed as the abdominal symptoms of angina pectoris. Lockwood states, "A patient may be suddenly seized by sharp lancinating or crushing paroxysmal pains which recur at short intervals, aften every 15 or 20 minutes, and last but a few moments at a time. Slight icterus has been observed at times, suggesting the possibility of biliary colic. A succession of paroxysmal pains constitutes an attack which may last for several days and be followed by a period of comparative freedom. The attacks are often induced by worry or nervous excitement, and may appear during the night. During the height of pain dyspnoea, moderate cyanosis, and Cheyne-Stokes respiration may be present. In a few of the cases a moderate icterus has been observed." Another type of abdominal angina is noted by Lockwood as follows: "A dull aching and throbbing pain may be experienced about one hour after eating, which is not due to gas. As a rule the heartier the meal the greater the distress. It is probable that in these cases the narrowed arteries are able to carry sufficient blood to the stomach for its requirements in the quiescent state, but are unable to meet the increased demands of physiological congestion during the digesting state. During active peristalsis the symptoms of ischemia become apparent and the condition is therefore akin to that of intermittent claudication." Fussell in Monographic Medicine (Vol. V., p. 430) states that angina pectoris is to be differentiated from indigestion, gastric ulcer, gall-stones and appendicitis. He says further, "Cases of angina pectoris occur which have as their cardinal symptoms pain in the epigastrium after eating and on exertion, the exertion having to be stopped immediately. Relief of this pain accompanied by belching of large amounts of gas are frequently considered both by the laity and by physicians as indigestion."

Such cases, he repeats, "are due to real cardiac disease and while they are looked upon often as simple indigestion, they are really cases of angina, and may eventuate in cardiac decompensation or in sudden death." Again he says, (Vol. V. p. 321), "Angina pectoris is frequently accompanied by pain, having its chief point of severity in or about the gall-bladder region."

Eusterman, Mayo Clinic, Vol. 1910, p. 1918, reports a case of abdominal angina which had been sent in for supposed gall-stones. Eusterman's article on Abdominal Pain contains the only reference to abdominal angina which I was able to find in the Mayo literature.

As stated in the opening sentence, there are many diagnostic pitfalls in the X-ray examination of the gastro-intestinal tract. As you well know, digestive symptoms and epigastric pain may arise as a reflex from organic disease in the appendix, the gall-bladder or many other organs of the body. But without reflex disturbances of any kind, certain diseases which are roentgenologically silent may closely simulate organic diseases of the digestive system to the discomforture of the roentgenologist. A study of this group may avoid serious diagnostic errors, fruitless medical treatment and equally futile surgery, and may be of inestiable value to the patient by indicating a regimen for the relief of pain and the prolongation of life.

DISCUSSION

DR. W. H. MARSHALL, Flint: I saw a typical case of this disease less than a year ago. It gave a history that Dr. Crane so well described of sudden attacks of pain after exertion and after meals. She presented some of the signs of scrititis and had a high blood pressure.

Having some suspicion of abdominal angina, I tried the therapeutic test to see if the nitrites would relieve the pain. In almost every instance

she received relief by the use of nitrites. The diagnosis was confirmed about two months after I saw her by her dying suddenly. I think we see many of these cases of chronic nephritis and we even pass them up. Pal, several years ago, brought that out. Association of jaundice is very confusing, as brought out by Hamburger in the Medical Clinics of North America some years ago

DR. H. M. FREUND, Detroit: I have been interested in this type of condition for sometime. Dr. Crane has differentiated a point, namely, that of the difference between the pain that comes in certain forms of abdominal diseases such as pancreatitis, pancreatic cyst, gall-bladder disease, diaphragmatic hernia—differentiating those from pains that occur in angina in which the pain really is high up in the epigastrium in the region of the ensiform. It is confusing because of the radiations those pains usually assume to really state whether we are dealing with a thoracic condition a condition truly one of angina pectoria, or one which is passing below the diaphragm.

Such conditions are sometimes quite confusing because of the radiation and because of the gastric symptoms that complicate the condition. Flatulence, distention, radiation of the pain to the back, sometimes to part of the neck, frequently suggest an abdominal condition where, as a matter of fact, an aortic condition like in an aneurysm or aortitis or anginal condition produced by angiospasm may be the cause.

Truly, the condition of abdominal angina due to angiospasm of the abdominal vessels is a rare condition. And when it occurs, we are to differentiate from the conditions Dr. Crane has mentioned. And yet I believe there is one point which usually is quite characteristic in cases of abdominal angina, those due truly to angiospasm, and it is a very different fluctuation of the blood pressure readings, as I have had the opportunity of observing in two definite cases.

The cases of abdominal angina are usually complicated by tremendous increase in the blood pressure. The cases that I had the opportunity of watching for several hours responded, as Dr. Marshall has mentioned, to the giving of a drop of spirits of glonoin on the back of the tongue. The pressure would fall in about half an hour. Soon afterwards the pressure rose quickly again with return of abdominal pain. That patient died in 36 hours. At autopsy nothing was discoverable but the intense sclerosis in mesenteric vessels and the gastric vessels. The condition is rare and should be borne in mind in differentiating your upper abdominal states.

DR. CRANE: I have nothing to add, Doctor.

GROUP MEDICINE OR STATE MEDICINE?*

ALEXANDER W. BLAIN, M. D., F. A. C. S.
DETROIT, MICH.

How many doctors, either specialists or general practitioners, are satisfied with the conditions of medical practice as they exist today Many, if not most of you, have admitted, I am sure, that all is not well in the medical world. Would it not be best to cast all illusions of professional perfection aside and assume the perspective of the outsider for the moment? Let us indulge in a few serious reflections and analytical thoughts in order that we may determine our shortcomings and find where we are lacking.

For some time we have been passing through a period of social and scientific, as well as industrial and financial, unrest, which has been followed by reform waves in various directions. Our people emerged from the war with new thoughts, new ideas, and a great deal of dissatisfaction for many of our established institutions of the past. The general population of our country has attained a higher plane of education, intelligence, and appreciation, due to the acquisition of a broader knowledge of fundamental subjects and a greater realization of truth. The minds of many of us are filled with doubt concerning the present methods of practice and professional procedure. At any rate, we must confess a changing attitude on both sides and an increasing lack of confidence on the part of the laity for the medical profession.

Why this change in attitude? First of all, the average individual is not satisfied with his relations to the doctor. He is insisting that in addition to the specialist and general practitioner, there be a third party, namely himself, and that the third party's rights be considered equally as important as the rights of the other two parties. In other words, we must begin to treat individuals, not cases. In theory the truth of this contention will not be denied, but in practice, it is often forgotten. The individual with a severe backache, is not interested in the glorious accomplishments of the medical profession in the Panama Canal Zone, the practically nil mortality from typhoid in the World war, or other marvelous records of the past. His one dominent thought is himself and the relief of his symptoms. His first thought is the cause; his next and most important is the treatment. He usually seeks the medical practitioner first; if he meets with failure here, he looks elsewhere.

Recent investigation and advance in medical science has placed new responsibilities upon the physician and his relation to the patient is more complex. The public is demanding less mystery, less ineffectiveness, a greater measure of frankness and logic, and more progressive methods providing a correct diagnosis and efficient treatment. Instead it has received, to too great an extent, a superficial examination, a snap-shot diagnosis, a worthless prescription and the application of some fad or fancy, the result of pseudo-scientific investigation of so-called specialists and commercial therapeutists, as a substitute for intelligent treatment.

*Read before the Wayne County (Mich.) Medical Society, September 26, 1921.

The thought uppermost in the mind of any sick individual is to get well as soon as possible or to be relieved of the condition from which he suffers. He demands reasonably quick reults and effective co-operation with nature. However, he rarely requires the physician to perform a miracle. But the righteous demands of the laymen are disregarded his prayers unanswered his confidence in his doctor destroyed, and he turns in desperation and indignation to some —pathy or —ism, some fad or pseudo-religion.

So as a result, we are confronted by many neglected, dissatisfied patients on one side, and many restless, insufficiently paid doctors on the other, and through the tumult and confusion we see State Medicine and Compulsory Health Insurance approaching rapidly. Is not the necessity of re-organization unmistakably apparent?

In a brief manner, I would like to discuss a few of the outstanding features in the Evolution of Medicine, together with some of the problems in which we are vitally interested, and the advancement and consideration of a possible solution of some of our present day difficulties. As self-preservation is the first law of nature, this should not be a difficult subject to discuss.

Diagnosis depends upon the recognition of certain symptoms, the correlation of all findings, and the drawing of conclusions from the evidence at hand. Diagnostic procedure was in the beginning very simple, being based upon external observation and the obvious complaint of the patient. Dissatisfaction crept in even at this early date, and so, prompted by a combination of generous impulses and the desire for personal reward, investigation was inspired, symptoms and diseases grouped, knowledge classified and thus the practice of medicine was removed from a primitive healing art to a scientific basis where it incorporated and became closely related to other sciences. So today we find medicine approaching an exact science in itself, following the principles of art in the appication of skill and the perfection of individual technic inspired by a certain aesthetic appreciation. It is scarcely necessary to call attention to the interlacing of medical and other sciences. We have the ever present use of the principles of physics, including mechanics, electricity, heat, light, and quantitive physical measurements; the analytical and synthetic phases of all branches of chemistry; the diagnostic features of bacteriology, serology, biology, cytology, etc; and the importance of considering the sociological and psychological problems of our patients.

So, as medical facts in huge numbers have been accumulated, the tools of diagnosis more numerous, medical sciences more exact, and the practice of utilizing principles from other sciences more common, diagnostic and therapeutic accuracy has been more and more assured. If the physician were then wise in the selection and use of his implements of diagnosis, were always conscious of the impending difficulties incident to making a diagnosis, and were even prompted by a sense of curiosity, the treatment of symptoms rather than disease would be less common, more data would be accumulated, histories would be more carefully taken, physical examinations more carefully made, and the end results more satisfactory.

We are proud of the strides made in medicine and it is quite fitting that adequate facilities be provided for the treatment of the sick and the diagnosis of disease. But how can these added advantages and stores of knowledge be placed within reach of the general public? The progress which medicine has made has also increased the needs of the medical man. He must provide himself with additional equipment and facilities or he cannot utilize the knowledge that is his. For his own welfare and that of the patient he must have at his service every necessary means for making a correct diagnosis. He must have an extensive library including books of reference and current journals. He must have many costly instruments and expensive apparatus. The practicing physician cannot provide himself with these and other important facilities unless he has private wealth or a wealthy patronage. The average practitioner and especially the recent graduate, is usually not so fortunate.

Presuming that every doctor has all these aids to diagnosis at hand, would the problem then be solved? No. Because the time has passed when any one man practicing medicine can hope to have thoroughly mastered medicine and surgery in all its branches. The practice of medicine has ceased to be a "one-man job."

The perfection of diagnostic methods, while a splendid fortune on one hand, has made necessary the division of medicine into various specialties. With the sacrifice of much general knowledge, men have studied in restricted fields and have obtained a special knowledge of certain diseases. The superiority of especially trained men is recog-

nized both by the profession and the laity. The wealthy people can patronize the specialist, selecting a new specialist for each new self-diagnosed ill. The indigent class can patronize the free clinic and thus avail themselves of expert services. However, it is doubtful if a miscellaneous collection of isolated specialists is a good substitute for the general practitioner. Aside from the point of economy, the efficiency is questioned, because, for lack of co-ordination of view point, the broad conception of the patient is often lost. The specialist is a necessity to the general practitioner, and every specialist needs the advice of other specialists. However, the interests of the patient cannot be cared for by forcing him to run from one specialist to another, and the average physician cannot make a clearing house of his office by referring his patients to the surgeon, X-ray, clinical laboratory, and the many experts in various branches, and still make both ends meet.

A solution is still lacking. Even if the specialists could care for the wealthy, and the free clinics the very poor (and incidentally, these two classes have ever received the best medical treatment) the large middle class, so important to our country and our civilization, and constituting the bulk of our patients, is not being efficiently cared for.

What is the answer? We have been told that State Medicine is the proper thing, and it is an idea at present popular with the laity and some of our lawmakers. The problem and possibilities of State Medicine have been thoroughly discussed in the past two years. You are all perfectly familiar with this subject and the degrading and destructive effects of unscrupulous politics and vicious legislation upon the practice of medicine. The fate of every one of you would be in the hands of the type of lawmaker with whom you are only too familiar, aided and abetted by the law profession, which is admittedly antagonistic to the medical profession.

It is needless to remind you of the intolerable conditions incident to such regime and of its effect in Germany and England. Yet removing the rich and the poor, who are often receiving the best that science can offer, the majority of the people are receiving inefficient treatment and the physician treating them is poorly compensated.

To better our own conditions as well as those of the patient, we must change many things and if we do not do so, the people represented by the State, will, probably in a manner very little to our liking.

We have yet one more direction to turn to, not as an eleventh hour alternative, but as a superior course to pursue, a course which will not only provide better things for our patients but will elevate our profession and will provide better working and social conditions and greater satisfaction for ourselves—namely, Group Medicine.

In numerous instances, usually successful, the medical profession is solving many of its problems by the organization of men especially trained in various branches for the purpose of group work and co-operative diagnosis. Groups are being formed, consisting veritably of a number of specialists working together in one building, in close conjunction and effecting unity of effort and endeavor. Competition thus makes way for co-operation and unity of specialism results.

It is not meant to be inferred that every patient coming to the group, regardless of complaint, must be subjected to examination by each member of the group, together with a number of complicated and superfluous laboratory and X-ray examinations. On the contrary, the average patient presents a rather obvious condition and the services of one member of the group is sufficient. However, there is a larger number of obscure cases needing a large amount of clinical and laboratory work. In other words, a general diagnostic survey is necessary, followed by a frank discussion and correlation of data by the doctors involved. The average doctor cannot do this work himself and so must refer the patient needing this sort of examination to a clinical laboratory, a radiologist, and a number of consulting specialists, the expense entailed being prohibitive to the average patient. If this type of examination, so often necessary, is carried out in a group the fee can be kept low enough to avoid a hardship to people of moderate or small incomes, due to economy of time, space, equipment, etc. At present, the small number of "Pay Clinics" is lamentable in spite of the fact that they are found working successfully in many cities. More doctors, especially younger men, with a good foundation of general training together with a special knowledge of one of the specialties, would do well to form in groups, not for exploitation or eagerness for financial gain, but for the protection and more effective care of the sick. Any doctor, no matter how skillful he may be or how great a diagnostic ability he may possess, is unable to do his very best work alone, because

of lack of time and because physical endurance will not permit it. He could better serve the pubic, the profession, and himself by becoming a member of a group where division of labor is arranged.

Let us stop again and consider more thoroughly the viewpoint of the patient, because, after all, it is he to whom we are responsibe and he should receive primary consideration. We hear the general complaint from the doctor that the free clinics are treating patients rightfully his. Of course, this will always be true to some extent as long as public employes are ambitious for large departments and recognition by departmental heads, and as long as discrimination between patients with and without means is not made. But many times the story is like this:

A patient visits the family physician, has his pulse felt, his temperature taken, his tongue inspected, a prescription given him, and his money taken. He compares notes with a friend who has visited a hospital clinic, where he has been examined thoroughly in several departments, his blood and urine examined, perhaps a gastric analysis or other tests made, and a Roentgenogram taken. He realizes that no scientific effort has been spared to diagnose the case. What is his estimation of the medical profession as a whole, and what comparison does he make? He perhaps does not care to be a candidate for charity and neither can he pay several large consultation fees. He would prefer to pay a moderate sum for a complete examination but in desperation he submits to a certain amount of humiliation and has to sacrifice his pride and dignity to get a complete diagnostic survey and an accurate diagnosis.

Even though the element of expense were of no consequence, the service of number of men working independently could not be of the highest value, and the disadvantage at which each one would be placed would be a detriment to efficiency. Besides each would be working in the dark regarding the field of examination of the other examiners, leaving a choice between ignorance and repetition. A patient in the hands of a group receives the necessary medical guidance and in addition, there is communication between examiners and access to all records.

The growth of the group idea seems assured. In the event that it reaches sizeable proportions, two things will happen to the practitioner: Many will form into groups, either in primitive groups where specialization follows organization, or into those formed by previously specially trained men. Those remaining in general practice will be benefited by the groups because, while continuing with their usual work, much of which is aside from the consideration of health, they can refer their difficult cases to groups for diagnosis in a similar manner in which a Wasserman is sent to a laboratory, returning with a diagnosis and perhaps advice as to treatment.

The idea has existed in the past, and I presume still persists with some, that a good doctor and a good business man cannot be represented by one individual. Only a few years ago, it was generally understood that the mention of finances in connection with medicine was improper. However, the necessity to the doctor of a generous income is apparent. He must be able to live comfortably, provide himself and his family with enjoyments and happiness, to enable him to study, travel, and meet the high cost of scientific appliances, office expenses, assistants, etc. To insure success, a large medical practice must be built upon sound business principles. The average doctor shows a conspicuous lack of business training. In fact, the medical profession has gloried in the fact that they have been poor business men. They have then sought to improve their position by investing their hard earned money, and it often is hard earned money—two or three dollars for night call—in some get-rich-quick scheme. The amount of literature which each physician receives each week from mining and oil syndicates organized in many cases for the one sole purpose of fleecing the investors, is proof that the medical profession are among their best dupes. I have been told by mining men that what is known as a "sucker list," worth in some cases hundreds of dollars, consists in no small measure of a list of gullible physicians. Would it not be better for the physician to consider his own work not only a profession, but to an extent, an honorable business and invest his savings in it? As a one-man firm this may not always be safe, but in groups it is not only possible but necesary. By this system two parties profit—the medical profession and the public.

The problem of organization of a group practice varies with the individual practice. Congeniality among members is essential, as well as ability. Professional and financial jealousies must be absent. Co-operation is the greatest necessity. The obstacles are similar to those attending the organization of a business partnership.

When I was an interne, fifteen years ago, the then foremost internist told me that the practice of medicine began and ended with the diagnosis. This thought was undoubtedly an imported product from Germany. It came at the time medicine was changing from an empirical art to a science—an important epoch to record in the advancement of medicine. But what a terrific financial blow to the profession! Cults and fads followed in its wake, which disregarded diagnosis and laid all of their stress on treatment. Who is to blame? Is it not ourselves? If it is to be corrected, men must be trained in therapy; physical therapy, psycho-therapy, and light therapy. The cults have proved their value as healing agents in only too many cases. Treatment should revert to the medical profession, where it rightfully belongs, where it can be properly and not improperly applied after the completion of a correct diagnosis. The results obtained would be far superior than at present, and treatment would still be scientific.

I have presented my ideas to you and I ask that you consider and discuss them. My single purpose is to suggest a plan which will provide the public and the doctor with the best facilities for scientific and accurate diagnosis, combined with the most successful treatment that is humanly possible to attain—a plan which will eliminate the possibility of any governmental interference in the practice of medicine—a plan mutually beneficial to the laity and the profession.

The profession and public are rapidly becoming dissatisfied with the present working of the medical profession. The profession is not utilizing or giving to the public the sum total of knowledge possessed by its members.

A change in the present system of working is imperative for the self-preservation of the physician. These changes should come from the profession itself. Properly conducted groups—**medicine under professional ownership and guidance**—I believe will solve the problem. Some of the competitive methods of the past have been on a lower plane than those employed by business men.

The changes are coming. Will the reforms come from the profession within or from the laity represented by the State without. It is up to the profession to take count and act.

2201 Jefferson Ave., East.

THE OPENING OF THE BATTLE CREEK SANITARIUM CLINIC

Ladies and Gentlemen, Friends and Colleagues:

In behalf of the management and the faculty I extend to you a cordial welcome and take pleasure in informing you that all you see here belongs to you and to the people of Michigan, all of whom have contributed, either directly or indirectly, to the creation of this institution and have helped to make possible this new extension of our work, the establishment of the Battle Creek Sanitarium Clinic, which we have invited you here to assist us in inaugurating.

Very naturally you will wish to know something of the foundation on which this enterprise rests. As I have already intimated, the Battle Creek Sanitarium and all that pertains to it, while administered as a private philanthropy, in fact belongs to the public. It is held in trust and controlled by a board of trustees who are responsible to the public and to the Estate for their conduct of its affairs. There is no private interest. The faculty and management are salaried employes. There are no shares, no stock, no dividends. All fees, of every sort, for examination, operations or other medical services, etc., go into the treasury, and never in any way, directly or indirectly, find their way into the pockets of doctors, nurses, managers or employes. Physicians and nurses are on full time service and not permitted to conduct private practice or to receive compensation for professional services. These rules have always existed.

If you inquire who has provided the means for the construction of the buildings you see and their equipment, the answer is to be found in the fact that there have been no dividends, no fees, and no profiteering, but a continuous, consistent and energetic team work during half a century, in which the one aim and undivided interest has been the creation of a self-supporting, philanthropic, medical, educational, self-endowed Race Betterment enterprise. Whatever has been achieved is the result of the combined efforts of hundreds of faithful men and women who have toiled in various capacities, giving their best efforts and loyal support, and receiving in return meager compensation, barely enough for a modest living. The common objective has been the promotion of human welfare through medical relief and the promulgation of the principles of temperance, eugenics, and biologic living.

The life of the present work really began in the fall of 1876. Before that time there had been conducted here a small water-cure which had become so nearly moribund that a funeral was in sight. By request the present management undertook to reorganize the work and put it upon a modern scientific basis. During the years which have since elapsed a steady development has been going forward.

After 25 years a fire destroyed our main buildings and not only wiped out our entire assets but left us with a minus value of $18,000. The management had at this time an exceptional opportunity for building up a private enterprise based upon the good will and reputation which the institution and town had acquired as a health center. There were circumstances which would have justified such an action, as the majority of the people who had formerly composed the constituency of the institution declined to assist in its rehabilitation and supported a demand that the enterprise should be removed from the state and established in some remote locality. We believed that the interests of the institution and justice to the people of Battle Creek and of the state of Michigan who had fostered the

institution during many years, demanded that efforts should be made to re-establish the work in this place. Our fellow citizens gave a cordial moral support and contributed nearly $20,000 to start the new building, which, with its equipment, cost approximately one million dollars, which was borrowed in sums varying from a hundred to several thousand dollars from hundreds of friends of the enterprise scattered throughout the United States.

Making this new start scarcely 19 years ago, just even with the world, without a cent of capital, the financial burden we have had to carry has been heavy. For years we were wading through deep waters. The fact that we are here today is due, not to shrewd financiering, but to the appreciation of our efforts by the public and the spirit of sacrifice which has led men and women who have toiled day and night with unrelenting perseverance for the realization and the support of the ideals and purposes for which this institution stands.

The Battle Creek Sanitarium is incorporated as an eleemosynary institution and holds its charter under a statute which exempts it from taxation along with other similar enterprises. This makes every citizen of the state a partner in the business, a contributor to its welfare. A perusal of the articles of incorporation will show that it is absolutely impossible for anyone to appropriate to personal gain any part of the earnings of the institution, or for the enterprise to fall into private hands or the hands of any church, sect or clique. It is made secure to the public for all time.

Having said thus much concerning our foundation, I desire to say a few words respecting the clinic which we are here today to open. First, I may say that medical relief for the worthy poor has always been one of the distinct features of the work of this institution. The need of this was recognized from the very beginning of the enterprise and during its history more than a million dollars has been expended in this way out of the earnings of the institution. Gifts have never been solicited. The institution has never had a begging committee. Aside from the gifts received after the fire in 1902, practically no gifts have been received since the original start when some $30,000 was raised to found the original water-cure, the property of which, with an accumulated debt of over $200,000, was turned over to the present organization in 1898. Every dollar that could possibly be spared has been used for the charitable and benevolent work of the institution. But for many years much more extensive work for the worthy sick poor has been contemplated, and the management have only waited for the time when the finances of the institution would permit the beginning of this larger work. We are yet by no means out of debt, but can see our way clear to make a start in doing the work in charitable medical relief which our articles of incorporation contemplate, and which the state in exempting the institution from the payment of taxes has a right to expect of us.

The management especially desire that the profession shall clearly understand that the work of this Clinic is to be in no way competitive with the family doctor or with other clinics. No physician or surgeon connected with the Clinic can under any circumstances be the recipient of fees for services. Patients who are able to pay and should pay for the service rendered them will not be received as charity patients. Patients who require only such attentions as are given in ordinary medical clinics will in general find their way to such clinics elsewhere. This clinic will be a Sanitarium clinic in which an effort will be made to give to the worthy poor, who are unable to pay the regular rates, the benefit of essentially the same facilities for examination and treatment as are given the well-to-do who are able to pay for the services rendered them.

This is by no means a new line of work for the Battle Creek Sanitarium management. For many years a clinic of this sort was maintained in Chicago at which many thousands of patients were treated. A similar enterprise was established in Mexico, where many hundreds received Sanitarium treatment. For many years a training school for missionary doctors and nurses was maintained here in which hundreds of persons were prepared for the giving of medical relief who later went to all parts of the world. This is only the beginning in Battle Creek of a work which has been done on a very extensive scale in other places.

A special feature of the work will be the instruction of the patient in matters pertaining to diet and right living habits and self-care at home so as to maintain the improvement in health which may be secured, by the adoption of better standards of living. It is expected, also, to maintain in connection with the work a social service and an obstetrical clinic, a child welfare and mothers' work.

The management, in this extension of the activities of the institution, sincerely hope to merit the approval and co-operation of their medical colleagues throughout the state and elsewhere, and will always welcome members of the profession on Tuesday, the regular clinic day, or at any other convenient time, since our clinical work is always going on and every department of our work is at all times open for the inspection of our colleagues.

Patients who may be sent here will receive careful attention, and a complete report of the findings will be sent to the physician on whose letter of recommendation the patient is received, together with a memorandum of such suggestions as may be made. Doctors who visit the Clinic will always find our physicians, surgeons, specialists, and laboratory heads ready to communicate and may be assured of a cordial welcome.

JOHN HARVEY KELLOGG.

The Journal
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DECEMBER, 1921

Editorials

CHANGE IN CONSTITUTION AND BY-LAWS

At the Bay City meeting of the House of Delegates there was appointed a committee to redraft our constitution and by-lays. This committee will submit to the officers of every county society a copy of the proposed revision. The purpose in doing so is that those who are interested may have an opportunity of studying the proposed changes. The entire revision will be published in a future issue of The Journal and opportunity will be thus given to every member to ascertain the revisions contemplated. This advance notice is given in answer to several inquiries we have received in regard to the work of this committee.

PRESIDENT KAY'S GREETINGS

To the Members of the State Medical Society:

The season of good will and good resolutions that is approaching makes us all in our personal relations a little kinder, a little more thoughtful, a little more tolerant to those immediately near to us; and our resolution for better deeds presumes a blotting out of the unpleasant past. It is good that this occurs at least once a year.

I. This feeling of good will reaches out beyond the bounds of our own fireside, always to the little folk of our community. How conscious we become of their existence, their troubles, their joys, and their needs; and at this time of good resolutions may we be just as conscious of our duty in safeguarding their interests and supplying their needs, and resolve that in the coming year we shall give more thought to their health and their physical and mental training. No body of men can do more to stimulate interest or educate, where necessary, to the end that the little folks have the best environment in the home, school and community.

II. Is it possible at this time of good will and good resolutions, when every branch of our profession has problems, the solution of which tax our patience and good nature to the limit, that we, Teachers, Investigators in the laboratory and clinic, Surgeons, Specialists and General Practitioner, can resolve that in the coming year we shall aid each other to so adjust these problems that good will come to the people we serve and increasing honor to the profession we love.

III. To the end that this may be accomplished let us all resolve to be better members of our county and state society—the proper place to organize effort for any good work or to state and harmonize differences of opinion.

With best wishes,
W. J. KAY.

QUO VADIS

Quo Vadis? Well may we pause as we enter in upon the last month of this year, and asking this question, pause in more than a passing meditation to inventory ourselves, our daily work and the future. To where does the avenue along which we are traveling as a profession and as individuals lead us? The answer is, and by the very state of affairs, must be largely conjectural in detail. In generalities we may venture a fairly positive conclusion coupled with some rather definite predictions. We cannot, however, express ourselves with any great degree of

certainty or with substantial assurances that future developments will witness a continuation of that same relationship with the public that the past decade has recorded. We are veritably at the diversion of the ways. The large majority will, by the march of progress, continue down the new path. What their experience will be, what their scope of endeavor will include, what their weal or reward will consist of, the passing days only will disclose. Those, who by their nature, their life's accomplishments and by their advancing years, are shunted along the old pathway, unable to accept the coming new state of affairs and who with faltering efforts still seek to cling to the customs to which time has wedded them, will need our solicitous concern and considerate help. This is the problem that confronts us and to which necessity compels us to give searching consideration.

Chaos, or ontological anarchy, is defined as a condition in which chance rules and uniformity and all evidence of law or of ideal ends are lacking. Our status cannot quite be described by that noun, nevertheless we border closely upon that state of medical affairs because we are unable to perceive any laws that will guide us or ideals that will lead us and chance alone seems to influence our endeavors. As individuals, or collectively, we have to this moment failed to develop a concrete plan of activity characterized by solidarity. Some pull this way, others another way and still others mark time or pursue selfish ideals. There has not been formulated any definite recommendation as to what position we shall hold as individuals or as an organization. We are stumbling along losing that power and prestige that is within our grasp but which apparently we willingly ignore. We are lethargic to the extreme. It is this state of affairs that urges us to extend the interrogation of Quo Vadis and invite your discerning consideration to formulate the answer.

Personally we have not the temerity at this time, to summarize the problem and advance our individual opinion. We do not feel inclined to set forth an attitude that should be assumed. We refrain from announcing a policy or even a procedure to be followed in reaching a satisfactory solution. As an individual we feel that we must be governed by the wisdom and counsel of those who have heretofore lead us and in whose integrity and judgment we have extended confidence. Consequently we have appealed to these of our members, and they are not the only ones to whom we might well listen, and have requested them to impart to us recommendations and advice that will assist us to visualize the task and duty that confronts us. We are indeed grateful that we may have their assistance. We submit for your mature reflection the following communications:

I recently heard three prominent Detroit specialists express their opinions emphatically that the reason why the laity seem to have lost confidence in regular medicine is because the average practitioner is so incompetent. This in face of the undoubted fact that never in this country has the standard of medical education been so high as now. Every recent graduate starts out with much more medical knowledge than any of the critics above alluded to had, and the number of poorly educated "old timers" is rapidly dwindling. Hence, the standard of both medical education and medical practice should be at the peak.

If it is not, why not?

If we mean that the average practitioner is incompetent because he does not go through the elaborate rigamarole of the specialist with every patient, then perhaps he is.

But the average patient with the average ailment does not need nor can he pay for the elaborate physical and laboratory examination necessary to eliminate all other known diseases except the ailment from which he suffers. Hence the average patient is well treated by the average doctor, symtomatically, and soon recovers. The hundredth case does not because he has some obscure basic pathology. Then the specialist should come in with his expert knowledge. But who selects the specialist and how many of the many so called specialists have had experience and training broad enough to see that the human body is made up of many parts of which their special organ is but one, all closely correlated?

We grant that some men attempt surgery for which they are not qualified, but would also suggest that the tonsillectomy experts are enucleating scores of healthy tonsils and the dentists pulling bushels of healthy teeth. I know several patients who have had all this done without benefit who have consulted me as to what should be done next. A well known throat man whom I sent to do a paracentises told the mother of the little patient that the tonsils of every child should be removed during the first five years of life. This child had never had a

sore throat, the otitis media was part of a clear LaGrippe infection and the tonsils looked (to me) perfectly healthy. But a little playmate had scarletina plus mastoid. She was told that this would not have occurred had the tonsils been taken out, so the mother could not wait until the alarmist came back from vacation and another fellow has them in pickle. Patrick, Bevan and others have recently bemoaned the passing of the general practitioner. He has not passed and cannot, because in no other way can the mass of the public be served. There must be many men who will make outside calls for a reasonable fee and who are the first to see the average case. It is regretable that they have not the influence with their patients that they deserve to have to prevent their self prescribing of specialist after specialist, each of whom finds and treats a different condition, in spite of the handicap the laity are now laboring under in being deprived of the confidential advice of the trusted family physician, the average mortality has not increased and the public has suffered financially rather than physically. Until the reaction comes, as it doubtless will, we hope the specialists will continue trying to educate us up toward their standard and to be lenient with our shortcomings, for many of us know as many things on you fellows as you know on us.

Let's admit that we are all fallible and all make mistakes, but are all doing the best our mentality and training permit to render the broadest kind of public service. Of course the specialists get the cream and we the skimmed milk, but after the legislature limits your surgical and obstetrical fees to fifty dollars you won't drive Packards either.

FRANK BURR TIBBALS.

Detroit, Mich.

Your request for comment upon chaotic world conditions gives me an opportunity to lift up my voice in denial that "it's always so after wars," if by "so" is implied like the present.

It was not like this after Appomattox. The boys of '65, who were sturdy, came home and went to work, the disabled were promptly hospitalized or pensioned. The rolls of "bureau" red tape were not then unwound. Those of '65 returned to enjoy larger personal liberty and to contribute to the suppression of license. On the contrary many of those of '18 who had observed the temperate use of wines in France, returned to join a large and influential group of their fellow American citizens in law evasion. For the past two years they have seen jails filled to overflowing with a new type of lawbreaker, and the agencies of the police largely directed to raiding and rounding up of rum runners, while automobile bandits rifled the mails and made safe get-away.

There was no critical unemployment situation in '65 because greed had not then put such a frightful crimp in patriotism and the "million" and easy-street-for-everybody-without-effort standard did not obtain. In '65 a spirit of co-operation was regarded essential to the perpetuity of the Republic. To be "Americanized" was unnecessary because we were all Americans. Strikes and lockouts were practically unknown and as to individual differences, there was a disposition to compose these—to which disposition a glass of wine or a mug of foaming beer frequently contributed. Confidence and good will prevailed—not mutual suspicion, questioning of motives, and disregard of one's neighbor's rights and tastes. On the other hand, in 1921, even Club members have, I have been told, made the unemployment situation an excuse for non-payment of dues and of their doctor's bills.

In 1865 parental oversight was constant and faithful. Discipline was strict in school and devotional exercises were part of its daily program. Children were taught obedience and were not coddled. What obtains now? Disobedience, indifference to authority, practically unrestricted contact between the sexes. It is probable that there has been in no post-war period for the past 2,000 years any single factor looming so large in amateur criminality, juvenile vice and delinquency as the twentieth century automobile.

What can Doctors do to remedy these evils?

The composite commonsense of the medical profession is a strong moral force. Being in the main motivated by this, and relatively little inclined to avarice and sordid self-seeking, the profession can—

Inveigh against the "million" standard and extol the cultural.

Advise parents, caution teachers, and admonish the young.

Denounce fanaticism and promulgate the creed of "Do unto others as ye would that men should do unto you."

Continue its merciful ministrations and furnish to all the world a high example of "good will to men."

C. B. BURR.

Flint, Mich.

While medical men and intelligent people the world over view with pride the wonderful progress of medicine and surgery the past fifty years it might be a good idea, lest we get too chesty, to hark back and give some credit to whom it is due. The recent demand for the return of the general practitioner and the thorough study and proper application of drugs, would indicate that we should return to first principles and hold fast to that which has proven good. And it might be well for us older men to remind you that in our day there were also great men, great discoverers.

For instance, as far back as 1832, at Mackinac Island in our own state, occurred one of the first of what may be called the modern epoch-making experiments in medicine, and that by an American, a surgeon in the United States Army, Dr. William Beaumont. His experiments and deductions may well have stood as a sign-post pointing the way to other investigators even up to the present time.

Never do I hear the name of some man who has attained prominence in medicine but I am apt to compare him with my own ideal, Dr. Oliver Wendell Holmes, that wise physician, teacher, philosopher, poet, essayist, wit and author. Custom cannot stale or time destroy the beauty, wit and wisdom of his writings. Every studious physician will find both pleasure and profit in becoming familiar with them. He will find new thoughts, new expressions, much as he would find them when he reads his Shakespeare.

Please don't think that because these words are reminiscent of things past that I have a grouch of things of the present or of the future. I am simply taking advantage of the license due a veteran. Yes, I honor the past, love the present, and adore the future of medicine as I conceive it will be.

With the large army of bright young men highly educated and broad minded now in, or about to enter, the field of medicine, equipped with means from State or wealthy patrons, to seek the causes of disease and death, what wonderful results may we not anticipate?

We have all seen medical, social, and political problems which looked ominous and threatening, disappear as the mist before rising sun. And so I believe that the present problems, large as they loom, will be solved satisfactorily by a united and courageous membership.

THEODORE A. FELCH.

By an active and timely co-operation of the medical profession of our state the "Chiropractors Bill," giving to that cult a separate board of examiners, was defeated after having passed both houses of the legislature and sent to the governor for final approval. We have every reason to congratulate our profession upon the protests made against this obnoxious bill, which led the governor to veto the measure. When we carefully analyze its provisions it is easy to see that it is simply an imposition on the public and against the purpose and spirit of true professional progress.

Today there are 341 chiropractors in Michigan, only 141 of whom are licensed, leaving 200 who refuse to comply with the law by passing an examination. The two chiropractors of Pontiac, Currier and McClap, are the first to be convicted under the law, receiving sentences of $200 each and sixty-five days in the Detroit House of Correction. It now appears that these offenders have deliberately refused to pay the fine and have elected to serve six full months in prison. According to a published statement of C. M. Guyselman of Jackson, president of the state organization:

> "This is the purpose and policy to be pursued by the state organization—to submit to arrest and imprisonment as a protest against the arbitrary and unjust attitude of the State Board of Medical Registration and the legislature for failure to grant chiropractors a separate board of examiners."

I simply reply to this insane and idiotic propaganda as one of no general value whatever as it would only influence those who represent the clamoring element of society as a whole. Let them appeal to public sympathy if they wish and serve sentences behind prison bars if this is their choice, but I am quite sure that it will only make more determined those who believe the law is made for the betterment of society; and by refusing to conform thereto they only demonstrate the fact that they are guilty as charged and should accept the alternative by serving sentences to the limit.

This cult of the chiropractor is founded upon the theory that all abnormal conditions of the human body are produced by some displacement or luxation of one or more of the vertebra, and that by reflex.

action, a pathologic condition is established which accounts for all the long train of diseases that the human subject has to contend with and that, by mechanical manipulation and adjustment, the causative factor is removed and the system made to function normally.

I ask you in the name of common decency, are we as physicians to throw aside all that has been accomplished by trained and scientific research made in the wonderful years of the past two decades for the purpose of satisfying these ignorant "bone healers?" Are we to sit idly by and permit these misguided individuals to be instrumental in establishing a law granting to them the privilege of imposing upon the public one of the greatest delusions of the age without putting up a protest against such proceeding?

Up to the present time we have been lame in our methods of dealing with problems of public medicine. These problems are daily growing in numbers and importance and it is imperative that we should be prepared to meet them so fairly and so strongly and so unanimously that we will gain the respect of the public and the satisfaction to ourselves that we have done our whole duty. Just think what it would mean if the public had to depend upon the chiropractor wholly as against the benefits that have come through the progress of scientific investigation! What can chiropractors do in the treatment of cholera, typhus and typhoid fever, tetanus, hydrophobia, small pox, diphtheria and a long list that we have found, by painstaking demonstration, can be alleviated or wholly cured by specific lymph where formerly most of these cases proved fatal? Is it possible that we have been blinded in these years of patient investigation and that the fundamental cause of disease has been overlooked—that the great and only etiological factor is "luxation of the vertebra?"

I have no hesitancy in saying that the medical profession is fully able to eliminate many of the evils with which we are threatened, but this will never be accomplished by speeches and paper resolutions, but by resolute and concerted action.

A. E. BULSON, SR.

While the problems for solution by the medical profession are the most momentous that tax the resource, skill, invention and unselfish interest of any body of men, they are being met with energy and devotion, and with an eye single to the common welfare. Mystery, superstition, and empericism are disappearing before the advance of scientific research and determinations. This tremendous boon to mankind has brought with it difficult social questions. The relation of the profession to the public and the public to the profession is changing and a new order is being evolved. The necessity for laboratory aid to the practitioner, who would do good work and progress in his field, is forcing group medicine. The small towns and rural communities are on the average having poor service. Few of the well trained men are seeking these fields and largely because of lack of facilities for efficient and satisfying effort. This problem must be faced and solved—sanely and reasonably—freed from the "bogey" of State Medicine. Community centers with hospital and laboratory foundations would seem to be the hopeful line of development. Modern medicine and the teaching of modern medicine have advanced so rapidly as to strain the factors of adaptation to the new conditions. The task is ours. We will bear the burden with cheerful confidence in an orderly and righteous outcome.

WALTER HULME SAWYER.

Hillsdale, Mich.

In your invitation of October 10th for this short contribution you write:

"These are, in a measure, chaotic days. Men are seeking the solution of the problems that confront."

I believe it is generally conceded that the chaos is due not to any one cause but to many—economic, industrial, social, political. There has been a great upheaval and all forces are trying to readjust themselves, to find their respective level. Therefore, there can be no one scheme offered as a solution, but possibly one as a suggestive remedy in a particular field of endeavor.

For the chaos as it confronts the medical profession, the latter is not entirely blameless. Science has been too silent; art too artless. Big things have been done, but the little attentions to the sick have been neglected. There has been much dwelling on preventive medicine and diagnosis, but too little on relief. The art of the forefathers has been lost.

What scientific medicine means to the patient should be given the greatest publicity consistent with the ethics and dignity of the profession. Safeguarded by exact requirements, members of the profession should be selected by their respective medical societies to have the honor to tell the people what medicine has done and is doing. Medicine

as a science must be given persistent publicity. No temporary attempt, but a program covering a year to year plan should be inaugurated. To aid in this propaganda the public schools of the city of Detroit are freely offered to the medical profession.

There is no danger that an honored profession, rich in tradition and accomplishment, will lose either in standing or usefulness. It is simply passing through the readjustment period of a world-wide disturbance and will, if the profession does its part, find its true place after the conflicting emotions of the times have subsided. Science will ever progress, art will re-assert and again endear itself. But to do this, our ethics must be given greater liberty of action. The people demand, and rightfully so, to know the truth. This, in the interest of the profession, without the exploiting of the individual, should be told.

ANDREW P. BIDDLE

The most consistent altruist in the world has always been the doctor, for, while the others have worked union hours, he has been on call twenty-four hours in the day for the needs of helpless humanity.

The doctor has always been at the front in all measures for the public good and has always led the movement or been a necessary factor in its success.

Medicine is to all of us not only a beloved profession, but, perforce, it must be a means of livelihood, and we must give that side of it our best attention if we wish to preserve and do the most possible with the ideal side of it.

The young man today has as high ideals as the profession has ever known; he wishes to have an equipment for the best possible work; he wants to perfect himself by post graduate study, and by membership in the best medical societies, but to attain all this he must have an income which will give him a surplus beyond the bare living needs of himself and his growing family.

We would all like to practice medicine just for the good we can do, but the bread and butter side will intrude on the most ideal dreams of helpfulness, so it behooves the young man to watch what is going on around him and be prepared to resist the encroachments which menace his success, whether in the form of State subsidized hospitals competing for his patients, drugless healers trying to break into his chosen fields, or the mistaken efforts of so-called philanthropists trying to thrust State medicine on an unwilling public.

We know how persistent and pernicious have been the attempts to force compulsory health insurance upon us and now the high standards of medicine are being attacked from another angle.

With the weeding out of quackery, by the admirable practice acts, we have succeeded in raising the average of medical work for the entire State, but the green fields of medicine look good to the cattle without the fence and they are trying to breach or crawl under the wires at every vulnerable point.

As healers, under the guise of religion, bone setters and nerve adjusters, drugless and otherwise, they are milling around every legislature and trying to horn in.

By a very narrow margin we escaped letting in a herd of them at the last session, but we must not consider the victory final.

We have a fine example of what can be accomplished in controlling those who practice medicine clandestinely, in the recent action of the Oakland County society.

They succeeded in having an offending osteopath fined, although at first defended by the Osteopathic Society. When the latter found conviction was inevitable, to save their own face, they repudiated the man himself.

They also had two chiropractors before the court, which found them guilty and gave them a prison sentence as well as a fine.

Not all the assaults on the physician's income and right of contract have come from without the ranks.

A committee to establish a standard fee bill for the profession of the State was appointed at the last meeting of the State Society, a move which is of questionable merit and may lead to serious results.

The recent ruling at Johns Hopkins University placing a thousand dollar top limit for surgical operations is a vicious attempt to limit the physician's liberty—not that many of the profession will suffer in income by this particular maxim, but the principle is bad and if established now will inevitably lead to the day when the State ridden profession will work for the pauper wages of the panel physicians of England.

The public has enjoyed the benefit of so much free service from the medical profession it is learning to look upon it as among its vested rights and is continually crying for more.

Medical service is about the only thing which the public has ever gotten free; for

which it has not had to render an equivalent.

The samples tasted good and the appetite has grown by what it fed upon. Let the man beginning the practice of medicine be charitable, but let him also be wise.

While whole heartedly helping the unfortunate let him also be watchful of his own interests. Let him watch the hosts of self-seekers masking as philantropists, new culturists and medical reformers.

If he falls let him at least die fighting for the standards of high attainment in his profession with the hope that the coming generations may win where he has seemed to lose.

CHARLES H. BAKER.

"With such doth he heal (men), and taketh away their pains."—The Apocrypha.

On St. Luke's Day there is read in every Episcopal Church throughout the world the first fifteen verses of the thirty-eighth chapter of the Book of Ecclesiasticus. This book is one of the Aprocrypha, written more than 3,000 years ago, a collection of uninspired Biblical writings, which originally had its place in the Bible between the Old and New Testaments. These verses are read to the memory of St. Luke, the Physician.

In this day of cults and heresies, of fakirs and charlatans, I cannot think of a more appropriate theme for a Yuletide discourse than that contained in these simple verses:

"HONOUR a physician with the honour due unto him for the uses which ye may have of him; for the Lord hath created him.

2. For of the most High cometh healing, and he shall receive honour of the King.

3. The skill of the physician shall lift up his head: and in the sight of great men he shall be in admiration.

4. The Lord hath created medicines out of the earth; and he that is wise will not abhor them.

5. Was not the water made sweet with wood that the virtue thereof might be known?

6. And he hath given men skill, that he might be honoured in his marvellous works.

7. With such doth he heal (men), and taketh away their pains.

8. Of such doth the apothecary make a confection; and of his works there is no end; and from him is peace all over the earth.

9. My son, in thy sickness be not negligent: but pray unto the Lord, and he will make thee whole.

10. Leave off from sin, and order thine hands aright, and cleanse thine heart from all wickedness.

11. Give a sweet savour, and a memorial of fine flour; and make a fat offering, as not being.

12. Then give place to the physician, for the Lord hath created him; let him not go from thee, for thou hast need of him.

13. There is a time when in their hands is good success.

14. For they shall also pray unto the Lord, that he would prosper that, which they give for ease and remedy to prolong life.

15. He that sinneth before his Maker, let him fall into the hand of the physician."

J. B. KENNEDY.

PUTTING SCIENCE ON THE PAYROLL

A. P. JOHNSON,
Publisher The Grand Rapids News

The editor of the Journal has asked me to write a few lines from a layman's standpoint on the tendency, the world over, of including the medical profession, if not all of science, within the regulation of the state. Whatever opinion I may have, or any opinion had by any student of modern economics, would furnish little solace to the physician or scientist who conscientiously believes that his profession or science could not be benefited by state regulation. Those who do not believe in state regulation of everything from the sunlight to propagation are rapidly being crowded into the minority. In this respect, we are facing a condition, not a theory. It is no longer a question of what benefits science, posterity or civilization. The question is, what pleases the people, or to be more correct, their legislators. That is socialism personified, complete and enthroned.

And, yet, socialism, as outlined by Carl Marx, its modern progenitor, as I understand it, does not reckon with state control of those prerogatives and responsibilities which belong to God. Unlike the collossal egoist who wanted to share with God the management of the universe, Marx was content to confine his theories to the value of money and to distribution and conservation as applied to natural resources. Marx was too intelligent not to know that the state, or better, the government, cannot produce any-

thing. It is essentially a regulating institution. The scientist, the physician, is a producer who does not disturb the monetary system, who if he is competent, does not waste natural resources, who cannot, by any stretch of reasoning or imagination disturb economic balances except to improve upon the quality of our economic life. Hence, there is no penalty attached to his efforts. Marx wanted to penalize capital. He wanted to equalize effort and compensation, to distribute the world's goods with a greater moral fairness among the many. That, as it seems to me, is Marxian socialism.

That is not the brand of socialism, however, that seeks to put science on the payroll. It is another sort of sinister influence that is creeping over the world, an influence which carries with it the philosophy of getting as much as possible for nothing. The medical profession, partly because of its own mistakes and partly because of the general economic drift, has become involved in these modern tendencies. Where the greatest toll has been exacted for services rendered, whether in industry, agriculture, in professions or in science, there you will usually find the greatest agitation for state regulation.

I hope I will not be too severely condemned if I say that I am little concerned over how state regulation would affect physicians as such. Most doctors I know would be better off financially doing something else. And the better doctor he is, the more successful he is, the more money he would make in any other business that requires an active mind. One thing is certain, he would keep more of it. The business deficiencies of the average professional man is as much atmosphere as anything else. A man can't buy bonds with his mind on an impending operation. And he can't buy them after the operation because it takes too much of his mental and physical strength.

No, I am not worried about the doctors. What concerns me is the public, the people, in whose name and to the glory of whom all these monstrous economic faw pas are perpetrated in our legislatures and national government. The people and the workingman! Take away all the worthless laws which have been enacted in the name of these two, dismiss the cost of their enforcement, and we will save enough money to pay our national debt and a good share of the international war debt in the next ten years, yes, in the next five. And in addition, we would have a much better country.

If the people could benefit by state administration of public and private health, no sane person would oppose placing the doctor on the state payroll. But I have yet to learn, from what little I have delved into science, that any one benefits from what is served free. The world is altogether too ready made as it is without taking away from the individual the responsibiilty of keeping well. This may seem cruel and heartless where poverty is concerned, but we are not discussing poverty. We are discussing an economic truth, a universal law as applied to economic and universal averages. The same principle is involved which sharpens the wild animal's teeth and strengthens the lion's paw. All forms of parasitical life takes things pretty easy. And what of their usefulness? In plant life everything comes to the weed. It can grow most anywhere and take nourishment under most any conditions. Not so with wheat, corn or potatoes. They have to be cultivated, worked.

Imagine what would happen to any candidate for political office who would go before his constituents with that kind of a campaign argument. And yet there is not a scientific reader of these lines who will deny the truth that a species is advanced, and developed, physically and mentally, only in proportion to its capacity to meet with causes and effects. If the state assumes the responsibility for the individual's health, if the physician is placed on the same par with smoke, plumbing and sanitary inspectors. I tremble to think of the attitude the public will take toward the whole problem of sickness and cure. And what incentive would remain for the profession to advance? Have any great problems, social, economic or scientific, ever been solved by the state? Increasing warfare, added confusion, conflicting laws and multiplying political complications prove rather that the state cannot solve the problems within its own premises.

The same rule applies to the scientist that applies to the artist. The struggle to rise perfects the artist's lines, his sense of proportion and his taste for the beautiful. I have known very few artists to whom success has come on a silver platter. What would any sound-minded person say, for instance, if it were proposed that the state should regulate the art of painting, sculpture or decoration? Whenever initiative is restricted, progress is penalized. And just as surely will the state penalize and retard the advancement of the medical profession if it undertakes to prescribe a "legal course," as it were, to health.

On the other hand, the medical profession is not altogether blameless for these strange tendencies. It has invited regulation by its commercializition. By that I do not necessarily mean overcharging. What I mean is the commercial element has intruded itself too conspicuously into the life of the profession. Sit in at any informal gathering of physicians and you will hear more about the economic phase of their activities than the professional. The profession is rapidly losing its delicacy and respect. It is disinterating into a common business in which ethics have become more a matter of business regulation than professional requirement.

I question whether or not, regardless of state intervention, this tendency can be stopped. The trend in the medical profession is, in common with industry, toward big business. The physicians are rapidly institutionalizing their energies. Institutions are always liable to regulation, so that in this respect the profession itself is hastening, rather than retarding the need of regulation. An almost fanatic trend toward specialization is an added complication in the purely economic status of the physician. A friend of mine had an ear-ache and went to his family physician, who informed him that not being an ear specialist he could do nothing for him. The ear specialist discovered something wrong with his sinus. A sinus genius said it wasn't his sinus at all but that he was a victim of a nervous trouble which seemed to originate in the region of the stomach. The nerve and stomach specialists passed the buck to the dentist, who discovered an abscessed wisdom tooth, the pressure from which had caused a sympathetic pain in the tender nerve system of the ear. The tooth was pulled and my friend has never had an ache or a pain since. I shall not mention what it cost him to have that tooth pulled.

Now, I do not expect any of these specialists to withdraw from their chosen activity as a matter of altruism, as benefactors of humanity or to offset what is apparently a bankruptcy fate for any unfortunate being who happens to get sick. But the fact is that the need of this extreme specialization cannot be explained to the man or woman who is raising a family on anywhere from $20 to $30 a week. A few experiences such as that encountered by my friend would make wonderful campaign fodder for an ambitious politician.

Now we come to another evolution consequent upon that of specialization. It does not take long even for a physician to understand the relation of "overhead" to business operation. A number of specialists interchanging professional courtesies, "victims," as their patients are sometimes called, realizing that they can do just as much, if not more, business under one roof, promptly join interests. The result is that a woman can now go into a doctor's emporium, much as she enters a department store, and have everything from her nose powdered to a treatment of her corns, with a possible ad interum removal of a carcenoma. Looking this thing squarely in the face, the layman is tempted to believe in state regulation.

Nor is the contemplation of a privately conducted medical instutionalism a particularly exhilirating one to the ambitious student of medicine. Like an institutional child he becomes colorless. A colorless, atrophied existence is not conducive to research, initiative or experimentation. These doctors' shops are not going to produce better doctors. To be sure, more facilities are offered, more instruments available and more of the material comforts provided. But these never made a good doctor. The best doctors I have known have carried their workshop between their chin and their hat. And singularly enough, most of them made their most notable progress when they had to meet emergencies while standing alone on their own feet. While I was a police reporter I saw an operation for appendicitis performed on a kitchen table, a basin on a window sill and his instruments laid out on an ironing board.

Hence, medical skill does not lend itself naturally to corporate functioning. Again we come to the fact that it is not an industry. It is a science which has chosen for its storehouse the individual man's brains. No government on earth can regulate thought. It can regulate speech and action, but it cannot produce original effort. It cannot force a physician to produce something new, to discover or isolate a germ, to invent or perfect a remedy. Unless there exists in the mind of that physician the desire and ability to produce these things they will not be produced. And it has been the experience of state functioning since the first society of human beings was gathered together in social, political and economic cooperation that originality does not inher in its organism. It is distinctively a non-producing institution.

The logical question that the reader would ask at this point would be, "Well, what is the remedy?"

To which I would reply: "Analyse your problem as you would diagnose a physical ailment." Look for causes and effects. If the principal trouble lies with the medical profession find the remedy and apply it. If the ailment is with the public, educate the public. We have long been led to believe that the medical men are not advertisers. Personally, I have my own views on that subject. I think they are among the most active advertisers on earth. But their advertising is of a very poor quality. It consists largely of an indulgence in technical and profound dissertations and in the airing of professional jealousy. Few doctors have anything good to say about one another. Yet, most of them will almost invariably agree in an emergency consultation. They spend an inordinate amount of time watching one another when they should watch their patients and their profession. They are too apprehensive over what will happen to them. Some of the views I have heard expressed on this matter of state regulation, for instance, are tragic, humorous and pathetic coming from what is ordinarily regarded as intelligent men. No one ever gets anywhere who is afraid of losing his job. And few lose their jobs who know their business. Regardless of the obstacles which the medical profession has put in the way of its own development, every now and then a man breaks over the bars and the crowd begins coming his way. Trace him back. First of all, he had faith in himself. Then he converted that faith by means of hard work and study into useful results. He just went ahead and did it, state regulation, institutionalism, specialization notwithstanding.

Let it not be inferred from this that I mean to convey that medical science is not making progress, that there are not many splendid men doing a great work. But somewhere there is disorder in the ranks. The medical profession is suffering from the same upheaval that is passing over all human life. Restless, irresponsible radio-active atoms are disturbing the great, general result, which is human happiness. And the medical profession is the one outstanding and constructive human agency which we cannot afford to disturb. It is dangerous to tamper with it. Dealing in the most delicate, the most valuable of all life, it is itself sensitive to every form of reaction. It must be left alone to do its best work. That is why it cannot successfully be institutionalized, commonized or commercialized.

The all-embracing answer to it all is enlightenment—education. The profession has too long confined its educational influence to within itself. Life is, after all, the most precious of all gifts. Raise the altitude of the common man's attitude toward life, toward health, toward all that concerns his comfort and happiness and he will go where he gets the best, the safest and the most certain results. Only in the respect that the physician has something to sell does his profession become a business. His wares are the highest personification of nobility. As this layman regards the medical profession, there is something wrong with its selling campaign. No one can find much wrong with the product. The scientific progress is here, but is it being sold to the public in the right way Surely, if the manufacturer of the product cannot sell it, the state will fare no better in the attempt. The present organization of the state is now on trial as it has never been before. All economic, political and social institutions are on trial. Religion is on trial. It is beginning to appear as if civilization has overtrained itself.

No set of men, no community of common interests, no group of thinkers, workers or producers of results is in better position to lay the foundation for the rebuilding of the physical and moral fabric of mankind than are those who are engaged in the practice of correcting physical and mental abnormalities. In its petty disconcernment over its own close-up problems, the medical profession has for the moment lost the great perspective of its usefulness to the world at large. It is still trying to cure patients instead of making men and women. But to make men and women, you who belong to the profession must first yourselves be men and women, strong, steadfast and sincere. You must possess an all-abiding faith in yourselves, in your mission and in the ultimate perfection of that which you produce. You who stand before the weak must yourselves be strong or your administrations will have been in vain no matter how much you know about the thing before you.

With such inspiration the medical profession can set an example to the state because within the state itself there are no such opportunities, no such possibilities and no such results to be obtained.

LIFE AND DEATH

EUGENE BOISE, M. D.
Grand Rapids, Mich.

Death may be said to be the cessation of life, and life may be defined as the correla-

tion of the various functions of the body. Pearl also defines it as a complex aggregate of cells and tissues—all mutually dependent on one another, and in a delicate state of adjustment and balance.

Krehl says, in speaking of metabolism: It has already been noted that in the normal metabolism of certain organs, there arise substances which influence the activity of still other organs. Thus the field of intermediate metabolism coincides with that of the chemical, correlation of these organs, which seems to explain from the physiological and pathological points of view, what investigators have long sought to establish from the morphilogical—namely, the indivisibility of the organisms. The nervous system has, until recently, been regarded as the essential mechanism whereby the functions of the different bodily units are harmonized. Now, however, the belief is held that many other organs, perhaps all, mutually influence one another in a chemical way by means of the so-called "hormones."

"Also (quoting Pearl again) if one organ for any accidental reason, whether internal or external, fails to function normally, it upsets this delicate balance and, if normal functioning of the part is not restored, death of the whole organism eventually results." Life, therefore, (to repeat) may be said to be the chemical correlation of the various functions of the body, the activity of each of these various organs depending to a certain extent on the activity of each of the other functions of the body.

Thus, for instance, the activity of the thyroid gland, gives rise to, or rather influences the functional activity of various other glands, and so with these other glands, their functions are interdependent. And now, what initiates the activity of these various glands which go to form the symtom complex of what we call Life? What initiates and continues the activity of the millions of cells of the body by which the tissues and organs of the body are made active The utimate end of al animate bodies is death, absolute and inevitable, but by what agency or in what manner, may be questioned. For instance, the co-ordinate working of the organs, their place in the scheme as a whole, the structural and chemical building of the body from a single microscopical cell, the wonderful problems of heredity, adaptation, growth and death, the preservation of the characteristics of the species, all await their solution by the worker who shall correlate our present knowledge. And what is our present knowledge? It is not, in part, that in the scheme of reproduction and the establishment of life, there is a chemical reaction which takes place at the time of the union of the male and female cells, whereby the protoplasm with which the cells are filled takes on a new form of activity, and life is generated.

If this union fails to occur, there is no life. Thus, by the chemical reaction, if I may so term it, which occurs between the spermatozoon and the ovarian cell, there occurs a form of activity whereby the vital processes of the entire system are set in motion and life, growth, development, retrogression, and ultimate death take place. This is the history of the physiological life of the individual.

It is subject, however, to interruption by various external and internal agencies by which death may occur prematurely. But in the normal life history of the individual, from its physiological inception to its cessation there occur the normal processes of growth and development up to maturity. Then a gradual but inevitable retrogression through various stages, which, though physiological, are marked by the gradual failure of the various functions of the body, until the ultimate end in death.

While death is generally gradual and can, perhaps, be readily foretold, many times it is sudden and unexpected, and while there is no evidence of active disease, nevertheless it cannot rightly be called normal. The only normal or physiological death is that from old age. This may be accompanied (or may not) by signs of degeneration which while normal to the various organs, can nevertheless be recognized as premonitory of death. All form of death, other than those due to old age, are pathological and may to a certain extent, be controlled. The physiological death is absolutely uncontrolable, except, perhaps, that in many instances the body, while subject to degeneration of the various organs, may also be made to respond to efforts and restored to the condition preceding the onset of the disease.

Take muscle cells as an illustration. Every muscle cell takes from the blood or lymph, material which serves as a nutrient to the cell, and supplies whatever is needed to enable the cell to perform its function. If then the muscle cell takes from the surrounding elements, may it not restore to the elemental tissues a form of energy whereby the tissue immediately in contact with the cell, is enabled to functionate.

In other words, while the muscle cell takes up nutriment, may it not also give out en-

ergy? May not the muscle cell act the part of an endocrine gland? And give as well as take from the neighboring cell material needed to maintain and continue the life and activity of the cell?

And if this be true of the muscle cells, may it not be true of bone cells, pulmonary cells, and of all cells which enter into the formation and activity of the body This would imply a two-fold nature of activities of the cells, namely, a function which has for its nature the nutrition of the cell, drawing for this purpose from the lumph that bathes the cell, and, second, a function which has to do with the activity of the cell.

While we have, as yet, been unable to find any endocrinal function of these various cells, may it not possibly or rather, presumably, exist? Also, may it not be that while we thus far have been unable to influence in any degree, the onset of old age, may it not be possible that any attempt toward its retardation may be sought with more hope by applying our efforts toward nutrition of the entire system and moderation in exertion, even if no organic reason for it can be found.

"Mysterious journey, uncharted, unknown and finally—but there is no finality! Mysterious and stunning sequel—not end— to the mysterious and tremendous adventure! Finally, of this portion, death disappearance —gone! Astounding development! Mysterious and hapless arrival, tremendous and mysterious passage, mysterious and alarming departure.

No escaping it; no volition to enter it or to avoid it; no prospect of defeating it or solving it.

Odd affair! Mysterious and baffling conundrum to be mixed up in!—Life!—"

DIAGNOSTIC CLINICS IN GENERAL

A recent number of the Boston Medical and Surgical Journal contains a rather illuminating article on the subject of hospitals as diagnostic centers. We feel that there are a number of factors involved in a centralization process of any kind, which concerns medicine that it behooves the individual members of the medical profession to weigh carefully each step that is proposed. Undoubtedly, medicine is changing; it must change. Change is a factor in growth and development. It is also a factor in decay. As a profession, we have been modestly reticent in the past in putting ourselves forward and proclaiming our virtues. The paper in question, states that "The many recent attempts at legislation to socialize medicine evinces a feeling abroad in the land that the full possibilities of medical science to alleviate the physical ills of mankind are not being fully recognized."

The paper is a plea for hospitals as diagnostic centers. The argument is well known, namely the advisability of the group idea, coupled with the use of equipment, mechanical, chemical and otherwise, which it is alleged a modern hospital is able to provide. The writer concludes by urging all public hospitals in his state to adopt a plan "whereby their diagnostic facilities shall become available for all classes of citizens, to the end that greater service shall be rendered and the trend towards greater socialization in medicine shall be guided by trained intellects, etc." If we favor socialization of medicine, and that is what State Medicine means, why then let us favor the diagnostic clinic as opposed to the private consultant and laboratory worker. Let us support boards of health in extending their influence not only in the line of preventive medicine, which is their legitimate field, but also in the way of therapeusis as well.

We believe that the progress of medicine thus far has been due to the efforts of individuals and not to the effort of the group. Even the State University is endeavoring to finance itself so as to procure professors of medicine and surgery from the ranks of successful medical and surgical practitioners. This was explained by the president of the university before a representative audience of medical men last January when he made a statement to the effect that medical colleges suffered from being taught by men of academic training only; that the man of successful private practice, other things being equal, was the best teacher.

This is true without a doubt. Then why not develop the individual? This cannot be done by making all hospitals diagnostic centers, "whereby their diagnostic facilities are available to all classes of citizens."

There is an incentive to greater and better service in the private than in the socialized enterprise, be it a medical practice or the operation of an industrial plant, where the incentive is the stimulus of personal interest.

The idea of socializing of medicine is born of extraordinary conditions that have prevailed since the beginning of the war. Time only will prove whether it is an evanescent phase or not. The demand for it has orig-

inated outside the medical profession and will undoubtedly subside when the readjustment to normal has been completed.

J. H. DEMPSTER.

THE SEASON'S GREETINGS

We would that it were possible for us to personally grasp the hand of each of our members and with that emphasis extend to you our cordial holiday greetings. That is so obviously impossible that we must again content ourselves by using these columns to convey to you our hearty greetings for a very Merry Christmas and our most sincere good wishes for an abundantly Happy New Year.

Time in its rapid passage brings us with seeming increasing frequency to the holiday season. Scarcely have we completed the celebration of one season when the next is upon us. The intervening period is all too frequently fraught with tremendous potentialities. To some they bequeath abundance and prosperity and joy. To others they produce repeated adversities and sorrow. Consequently, the mood in which we enter in upon the holiday season varies with the individual. However, what our lot may have been during the year that is rapidly being rounded out the holiday season is calculated to bring about that feeling and spirit of good will and good cheer that will permeate our individuality so that the spirit that is sad and discouraged will become inspired anew and with renewed hope and reestablished confidence resume the tasks and responsibilities that confront. Those whose cup has been overflowing with prosperity and happiness derived from the passing year will in their festivities have ample reason to share their contentment with their fellow men and thus add to the holiday spirit so that good cheer and joy will be abundantly manifested.

To all of you then, member, reader, advertiser and exchange editors, do we repeat our wishes for a Merry Christmas and a Happy New Year. May joy abound and hope eternal spring anew for each and all of you.

Editorial Comments

We are strongly opposed to any measure that restricts the medical man of his right to domicilliary visitation. Deliberate reflection will reveal the scope of that assertion.

We do not believe that State Medicine, Compulsory Health Insurance or whatever you may term the procedure by which doctors will be expected to work under state or national governmental direction, will ever become an actuality in this country. Our people are not so constituted. Our doctors cannot be subsidized in that manner. We cannot set forth a successful example of wherein the state or nation has by governmental direction properly and satisfactorily supplied medical care or attendance. On the contrary, it has failed whenever it attempted to do so. The most glaring instance is the medical care that it seeks to give to our exservice men. After three years of varied methods and measures the government is woefully inefficient in its medical administrative methods for these sick and wounded soldiers. It is a vivid example of what we might expect if it undertook to provide medical care for one hundred million people, and now it has less than a million men who require medical and hospital attendance. We need never fear state medicine if we meet up to our individual responsibilities. We need never fear state medicine if we do not commercialize ourselves and thereby remove from the average man his ability to obtain modern skilled attendance. We need far more to concern ourselves about our own conduct and that of our fellow doctor than we do about state medicine or compulsory insurance. Therein lies the solution of the problem.

A conference of representatives of the constituent state medical organizations of our national body was conducted during the two days of November 11 and 12 in Chicago. This meeting was attended by the national officers, members of the board of trustees, members of the several National Councils and by about 35 state secretaries.

Numerous topics were discussed in regard to our organizational and professional activities and interests. The discussion was most profitable and inspiring. One gleaned from the remarks of men who came from all parts of the country the trend and condition of medical affairs. We have attended a number of these annual conferences, but do not recall one that was so productive of good. It was not a mutual admiration gathering. Facts were stated and actual conditions were plainly set forth. Confronting problems were fully considered and remedial measures were agreed upon. We gleaned our faults as well as our virtues as medical men and medical organizations. We were impressed with the fact that all were desirous of attaining the ideal and accomplishing that which we may all secure if we but bend ourselves to the task. The trustees have developed a plan that will bring about a closer relationship between all medical organizations. They are at work now to promote and develop the American Medical Association so as to make it greater and better and of more value to the members. It was agreed that with the development of those plans the association would enter in upon a new era in which medical organizational accomplishments would bring to the profession that respect and regard that will firmly establish its influential prestige. In doing so the individual member will profit in proper degree. There was a sincerity of purpose registered which we believe will be productive of everything that will prove most beneficial to all doctors.

The legislative assembly of British Columbia appointed a special committee from among its members to report upon the petition of drugless and other cult healers for unrestricted right to practice in that province of Canada. In its report the committee recommends against allowing such a state of affairs and concludes its report as follows: "It is the accredited representatives of the medical pro-

fession—if they are honest and fair, and there has been no suggestion to the contrary—who are best fitted to prescribe the necessary standards." Would that we could induce our own legislature to see the light as have these Canadian men.

The Chiropractors have entered upon an advertising campaign, using the Sunday papers in several parts of the state. They are thus spreading their propaganda with an ultimate end of gaining sufficient strength to influence the next legislature so that they may obtain legal recognition. Wherever these advertisements appear we suggest that the local county medical society reply in the public columns of the paper and refute the tenets that they set up. We do not believe that mis-statements should be permitted to go unchallenged. This, is also a movement that our State Commission of Health should concern itself with in its publications and by its publicity department because the health of the people is vitally concerned.

We may be grateful for having located in Michigan, because we will not be called upon to assume the role of bartender in dispensing beer upon prescription orders. It is difficult to perceive how any physician can willingly assume to succeed the at present extinct bartender.

We do not propose entering upon a discussion of the question as to why every physician who desires to remain abreast of modern progress should devote a definite period to reading and study each day. What we do want to state is that we believe that no man is fit to practice unless he secures and reads every issue of the Journal of the American Medical Association. There is no medical publication that excells this national, yes, international publication, which is the peer of all medical publications. It is not high-brow or ultra-scientific, as some have appraised it. It is the best medical journal that faithfully represents all that we as a profession are accomplishing and the knowledge that we have in regard to all medical conditions, medical science and medical economics. If you are not a subscriber, we cannot urge too strongly that you commence the new year with the determination to become a reader of the Journal of the American Medical Association. You can become a Fellow of the American Medical Association and receive the Journal for the small sum of Six Dollars. Just drop us a line and we will forward the necessary blank. Do it now and tell your wife that you will take this subscription as one of her Christmas presents to you. Remember you are not fully fit to practice unless you read this Journal.

The statement is frequently made that doctors are deserting the rural communities and going to the cities because in the country they do not have the facilities of hospital service for their patients. The actual state of affairs does not bear out this claim. A survey has recently been made in some of our large and medium-sized cities and the information obtained is that only approximately 22 per cent of the doctors located in the city had at their command hospital accommodations for their patients. Thus is dispelled a frequently quoted reason for the dearth of doctors in rural communities. A more tenable reason may be advanced in the fact that in the progress of world's affairs things have changed so that now 52 per cent of our population reside in cities.

The Council on Medical Education of the A. M. A., has complied and in part published some 8,000 supreme court decisions upon medical subjects. At an early date these compiled decisions will be available in completed form.

"Putting Science on the Pay-roll," published in our editorial department in this issue, merits your reading and reflection, not only once, but several times and then discuss it with your neighbor or at your next county meeting. Then if you have reason to believe the writer is in error write us and tell us so. On the contrary, if you conclude that he is right, then go about to correcting the condition in yourself and in your community. Let us stop this calamity holler and commence re-arranging our own house to meet up to the modern times.

The average medical school professor, lecturer or teacher knows but little about medical organization and society work or activity. He is too greatly concerned with the scientific problems of his own particular subject. Their medical students leave their institutions with little, if any, conception of the ideals and economics of practice and their relationship to their conferers. It is not to be wondered at then, that we find these graduates viewing medical societies only as a medium for them to air and propound their scientific opinions. We venture to suggest that deans of medical schools provide a certain amount of time for a course of talks by dependable men upon these subjects and make it compulsory for their students to attend these lectures.

Times change and we must necessarily change with them. The standards of yesterday are not applicable to today. We realize this, and have no complaint unless the new of today is inferior to that which governed the yesterday. Just at present we feel disposed to criticize the present day nursing service and standard. We can mention a half dozen hospitals wherein the nursing service is far inferior to what we were accustomed to several years ago. And right there we stop. To tell why and how the service of today is inferior would require more space than can be allotted to this comment. One, and a very important reason why this is so, is because in the modern training school there is very little, if any, contact between the physician and the pupil. The relationship of doctor as instructor is being done away with and the pupil has no longer that example as a stimulus for holding inviolate the sacred relationship of patient, physician and nurse. As in our other problems, we feel that in the end a suitable and efficient adjustment will be consummated. We learn that a Commission of the Rockefeller Institute has been surveying the problem for some time and that in a few weeks their findings and recommendations will be submitted to the medical and hospital world. We have been informed that one of the recommendations will be that the training course be reduced to two years. Another change will be an entire revision of the training course. Several other recommendations will be made in regard to entrance requirements and classification of types or classes of nurses other than the at present Registered Trained Nurse. On the whole we feel that it will be an effective constructive program that will solve the problem to general satisfaction. It rests with our Training Schools and Hospitals as well as the at present Nursing organization to adjust themselves to this needed reform.

In the death of Dr. Dwight H. Murray of Syracuse, New York, the profession has lost a distinguished and efficient physician. As a representative

of the profession of New York and as Speaker of the House of Delegates of the American Medical Association, he was a most valued organizational worker, whose efforts were ever directed in the interest of every member of the profession. It is some 10 years since we first met Dr. Murray and during the succeeding years we have counted it good fortune to have come in closer contact with him and to have glimpsed the principles that motivated him in the performance of the duties he assumed in behalf of our national organization. We have indeed lost a leader who had our every confidence. The work of the Association will, of course, continue without him, but our progress will not be quite so rapid, nor so direct as it would have been had Dr. Murray been spared. We realize fully the responsibility that rests upon us in succeeding him as Speaker of the House of Delegates of the A. M. A.

We need your support in maintaining our advertisers. Several complain that they do not receive requests for literature or for valuable samples. Will you not come to the rescue and aid us in demonstrating the value of your publication as an advertising medium? Turn to these pages and see what these responsible firms are offering to you. A few postal card inquiries directed to them will help immensely. Will you do it?

The report of the joint Committee on Health Problems in Education of the National Council of the National Education Association and of the Council on Health and Public Instruction of the American Medical Association states that more than half (about 12,000,000, or three-fifths) of the school children in the United States are attending rural schools, that these country children (attendants of rural schools) are, on the average, less healthy and are handicapped by more physical defects than the children of the cities (including all the children of the slums), and that this is true, in general, of all parts of the United States.

It further states that if the health program in the rural schools is to be successful, it must enlist the co-operation not only of all individuals logically concerned in this vital aspect of education, but also of all organizations that may be naturally or by persuasion interested in the welfare of children. It announces that the granges, medical societies, women's clubs, and churches or other organizations may find abundant work to do if the complete program of health is attempted with any thoroughness. It suggests that several phases of the health program may require in any rural community the support of, or demonstration by, some volunteer organization before school boards or other governmental agencies are convinced of the necessity and practibility of the new measures. It emphatically states that every community in the country, as well as in the city, vitally needs the help of some volunteer organization of unselfish people whose dominant interest is the health and welfare of the children.

Sometime ago we were in the editor's office of a contemporary medical journal and opening a drawer in his desk he showed us a bunch of envelopes that contained an equal number of anonymous letters that attacked him personally. They were collected during a period of ten years and although we did not read all of them their gist of attempted criticism were the "sour grapes," jealousies and "stepped on toes" of poor fool readers or members. This editor informed us that he felt he was getting in a rut or putting out a poor publication if periodically he was not the recipient of such letters. Further, that he was editorially commenting upon practices that merited censure when such comment brought forth an unsigned critical letter. We stated that evidently we must be hopefully mired in a rut for up to that time we had not been the recipient of such a class of communications. If we use that editor's barometer as a guide we must be improving, for this past month has brought forth such a letter from some poor, ignorant cuss who attempts to pass comment and hasn't the guts to sign his name. Thanks, old green ink spiller, you knew how to spell our name and that is going some. As for the rest, why just take a jump in the lake, or, if you dare to let us know who you are we will push you in.

Elsewhere in this issue there is published the opening remarks of Dr. Kellogg delivered at the first session of the Consultation Clinic established at the Battle Creek Sanitarium. We are glad to give space to this frank statement of the policy and purpose of that clinic so that our readers and members may know just what end is being sought.

As Chairman of the Committee on the Armistice Day celebration, I beg to advise you that appropriate exercises were held in front of the memorial tablet donated by the Michigan State Medical Society, at eleven o'clock on November 11th. The student body and teaching staff were gathered. Dean Cabot gave a very appropriate and brief address, at the conclusion of which four enlisted men, under command of Captain John Sherrick, placed a beautiful wreath over the tablet. Taps was then sounded with everyone at attention, following which a two-minute period of silence, as decreed by the President, was observed. This closed the exercises.

We thought it quite appropriate to place a temporary tablet memorializing the graduates and undergraduates of the school who had been killed in action. It is contemplated to erect a permanent tablet in memory of these officers. The exercises were run off with very great precision, and the ceremony was in every way a fitting one. I enclose herewith a copy of the address of Dean Cabot. Enclosed also herewith the bill for the wreath.

Very sincerely yours,
U. J. Wile, M. D.

ARMISTICE DAY ADDRESS OF DEAN CABOT

We are gathered here this morning to pay respect to the memory of those who "gave all that they had or hoped for" to uphold the honor and dignity of these United States. We are gathered particularly to do honor to the memory of those whose names appear upon this bronze tablet placed here by the Michigan State Medical Society, but it is also fitting and proper that we should do honor to the memory of other graduates and undergraduates of the Medical Department of this University who made the supreme sacrifice and for whom as yet no memorial has been erected. These men went to their death in the midst of the exhaltation of the war, an exhaltation the like of which this country has not seen since the days of the Civil War, if indeed it has ever seen it. It gave to each and all a degree of self-forgetfulness which enabled them to do many things which, under ordinary conditions, might have been impossible. They and their comrades of the Allies won the war. It remains for us to achieve the more difficult task of applying that exhaltation, that self-forgetfulness, to the

problems of peace. It is not enough that we should honor their memory. They have left us under a lasting obligation, and just insofar as we fulfill this obligation we shall deserve well of posterity. The essence of their sacrifice was devotion to an ideal. To the Medical profession, more easily perhaps than to any other group, comes the possibility of setting an example in the pursuit of an ideal. Our position is like that of the army in which they serve—a defense against attack. They defended our lives against invasion by man; we may, if we will, defend our country, yea the world, against invasion by disease. This is the ideal for which we fight. It is an ideal in the pursuit of which we may readily become as selfless as they were, and display the same single-hearted devotion which characterized their lives and their deaths.

"KILLED IN ACTION"

Is there any more stirring epitaph or more lasting monument? Instinctively we pause before it and, perhaps a little wistfully, hope that our epitaph may be as simple and as honored. And yet it is precisely such a career that is open or opening to each and all of us. We belong in one capacity or another to that great army which is battling to make the world safe for an advancing civilization. Unless we win this battle, there will be no future for the world for which they gave their lives. This is their legacy to us. Let us see to it that we be not negligent of this trust, but steadily, boldly and selflessly go forward in this great battle so that at the last we may deserve their epitaph, "Killed in Action."

Deaths

DR. MORTIMER WILLSON

The kindly hand of death rested upon Dr. Mortimer Willson and he was not. No suffering attended his going—while on the golf links late in the afternoon of November 3rd the last call came to him, but so abrupt and insistent was it, that no one heard his "adsum."

Dr. Willson was born of Quaker parentage near Pelham, Ontario, not far from Niagara Falls, in 1847. His parents had moved from New Jersey to join a Quaker community in that locality. Among his ancestors were those who "came over" with William Penn and took part in the settlement of Pennsylvania.

While he was still a lad his parents came to Michigan and settled near Vassar. Here he got his early education and became a graduate of the Vassar high school. From Vassar he was called to Carthage, Missouri, to become principal of the high school there. While filling this position for two years, he became interested in, and began the study of medicine. Later a course in medicine followed at Ann Arbor embracing one year. His next year was spent at the Detroit Medical College, where he graduated in 1874. He began the practice of medicine in West Bay City, remaining there for one or two years. He was then called back to Carthage to fill the position of superintendent of schools. Four years spanned his work there.

While at Carthage he was married to Elizabeth Chase. In 1881 they came to Port Huron, where Dr. Willson established himself in his profession.

A little girl came into their lives who fell a victim to tuberculosis at the age of three years. The death of the mother soon followed.

In 1889 Dr. Willson was united in marriage to Jennie Jenkinson. To them was born a son who is now a prominent citizen and business man of Port Huron.

In 1890 Dr. Willson visited Berlin, Germany, and other prominent cities abroad, for medical research.

For ten years he was president of the Port Huron Hospital Association. For some years he served as a member of the Board of Education.

He early identified himself with the Grace Episcopal Church and for many of the last years of his life was the senior warden. To his church he left a bequest of $5,000.

DR. MORTIMER WILLSON

His fellows in medical profession in city and state early recognized his marked ability as a physician, and his rare qualities as a man.

In 1891 he was made president of the Northwestern District Medical Society—at that time the oldest medical society in the state.

In 1892-3-4 he served as president of the Port Huron Academy of Medicine.

In 1904 to 1911 he was a Councillor of the State Medical Society.

To Dr. Willson's personal efforts and financial support more than to that of any other man was due the building of the Port Huron Hospital. He turned the sentiment of the profession for privately owned hospitals aside because of the mercenary element involved, and, inspired by a pure benevolence, led to a successful issue the building of a hospital by the people, for the people. To this hospital he left a bequest of $10,000, and that, too, when he was not looked upon as a man of wealth.

Dr. Willson was a strong humanitarian. To him a human life was one of the most sacred things on earth. To give one drop of medicine, or to touch

one fibre of the body, surgically, with any other motive than the good of the patient, was to him inhuman.

Never hesitating to act when heroic measures were necessary, he performed the act, yet a mother's tender instincts hovered.

A naturalist, he studied the ways and habits of birds and made for them homes in the many trees surrounding his summer cottage. In the early morning, at the dawn of day, from his bed near an open window he would talk to them tenderly as a mother to her infant.

Drawn by night to the study of the glowing wonders of the sky, he equipped himself with such astronomical instruments as would enable him to satisfy one of the many ever present longings.

The study of psychology and spiritism had for him a fascination, yet in all his study and investigations his judgment was not warped nor his poise lost. No tangential dreams or will-of-the-wisp theories led to eccentricities.

A sturdy, strong, living Christianism dominated all his activities. It was uppermost in his activity in educational matters. It held him rock fast in his activities in civic and professional endeavors.

In Dr. Willson the stature of a man was fully attained. He reached out for all of the best things of earth, for material to build an unselfish character. Sorrow and suffering was not, and could not, have been left out from that material.

Earth is richer today because of him who served unselfishly and so abundantly; yes—Heaven is richer, too.

Dr. Thomas B. Henry of Northville was born in Canada in 1874, and died in the Dearborn Hospital, October 26, 1921, of uremic poisoning. He graduated from the Detroit College of Medicine and Surgery in 1897. Dr. Henry enlisted in the medical service when the Unitd States entered the World War and rose to the rank of major. He was stationed at Camp Custer, Edgewood, Maryland, and Aberdeen, Maryland. After the war he returned to Northville broken in health. The doctor was a member of the American Legion and the Knights Templar. He leaves a widow and two children. His two brothers, Daniel B. of Northville, and Frederick N. of Detroit, are both practicing physicians.

Dr. A. S. Kimball of Battle Creek died November 6th, following a two weeks' illness.

RESOLUTION

WHEREAS, Dr. Frederic H. Tyler has been called from his active duties and life among us; and

WHEREAS, Dr. Tyler has been an esteemed and valued member of the Kalamazoo Academy of Medicine for many years, during which period he has devoted the best of his time and energies to the care of his patients and the advancement of his profession

RESOLVED, That we, the Academy of Medicine, extend our deepest sympathy to the bereaved wife and family in their darkest hour of trial and suffering, assuring them of our profound realization of our mutual loss.

RESOLVED, That these Resolutions be spread upon the minutes of the meeting and that a copy be sent to the family.

Committee:

C. L. BENNETT,
A. H. ROCKWELL,
A. W. CRANE.

County Society News

GENESEE COUNTY

The Genesee County Medical Society, at a meeting held on October 27, presented a symposium on Cancer. Dr. Connell spoke on present day conceptions as to the cause of cancer and recent progress in its study. Dr. M. W. Clift spoke on present methods of dealing with cancer. Dr. Manwaring spoke on what may reasonably be expected to be accomplished in the future. Dr. Randall discussed the progress that is being made in shortening the interval between the first visit to the physician and radical treatment. Our society has cooperated well with the American Society for the Control of Cancer. We furnished speakers for the business men's luncheon clubs, speakers for woman's meetings, and secured the co-operation of the press and clergy.

The Genesee County Medical Society met on Wednesday, November 2nd, President Miner in the chair. Dr. F. B. Miner delivered the presidential address, in which he reviewed the past activities of the Society and paid a tribute to the splendid spirit of co-operation existing at the present time. He urged the members to do their utmost to make the 1922 meeting of the State Society at Flint the most successful ever held. He outlined the work of the Society for the coming year and spoke of the work to be done to help the Legislative and Publicity Committees. Dr. Reuben Peterson of Ann Arbor spoke entertainly on the subject of Pneumoperitoneum. He has studied over 300 patients by this method and is convinced that the procedure can reveal pelvic pathology that cannot be determined by the usual clinical methods. He sketched the development of this work. At first he used oxygen, but later he used carbon dioxide gas with much better results. He explained the methods of producing pneumoperitoneum by the transperitoneal and the uterine routes. He finds that 1,000 ccs. of gas are enough to get good plates. Acute cases should not be inflated. He showed lantern slides illustrating various conditions. He can diagnose pregnancy with certainty by the second month. The procedure is of utmost value in investigating sterile women with the view to finding the cause of sterility. Tubal and ovarian pathology is usually well shown. He gave the impression that the method is not a difficult one and is convinced that it will open up a fruitful field in pelvic diagnosis.

W. H. MARSHALL,
Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The G. I. C. October meeting was held in Brainerd Hospital Thursday, October 20. In the absence of President Burch, Dr. C. E. Burt was called to the chair.

We had for out-of-town guest Dr. A. L. DeWitt of Detroit, who gave a clinic on internal medicine. The Doctor is a good talker, and went over the patients present in a very instructive and thorough manner. The attendance was better than usual.

The November meeting of the Gratiot-Isabella-Clare County Society was held at Brainerd Hospital in Alma November 17.

Dr. Hugo A. Freund of Detroit conducted a medical clinic. A good variety of cases were shown and Dr. Freund being an excellent teacher,

made a very profitable meeting. The majority of our members like a clinic better than a paper.

By motion the secretary was directed to inquire from the State Secretary what would be a fair contribution from this society towards the expenses of the Legislative Committee.

Dr. and Mrs. C. F. DuBois of Alma gave a luncheon for the following, Thursday, November 17: Doctors Hugo Freund of Detroit, E. T. Lamb and R. B. Smith of Alma, W. E. Barston of St. Louis, and E. M. Highfield of Riverdale.

E. M. HIGHFIELD,
Secretary.

MUSKEGON COUNTY

On October 19th, 1921, the Muskegon County Medical Society entertained the doctors of the Eleventh District. All doctors gave up their office hours during the day and helped to entertain the visitors. The visiting doctors reported at the Century Club upon their arrival in the city, where a committee met them and directed them to the Mercy and Hackley Hospitals, where the entire morning was taken up with surgical clinics. Members of the local society were the surgeons in charge.

At the noon hour both hospitals served buffet luncheons. The meeting then adjourned to the Country Club, where the afternoon, up to four o'clock, was spent on the golf links. At four o'clock Dr. Sheppard of Kalamazoo gave an excellent demonstration of how to examine the chest and interpret the findings therein. Patients from Woodlawn Tubercular Sanitarium were supplied for this purpose.

At 6:30 a banquet was served at the Country Club at which 70 were in attendance. Dr. W. T. Dodge, Counsellor of the District, presided, and gave a very pleasing address to those assembled. Other speakers of the evening were: Dr. F. W. Garber of Muskegon, Dr. Black of Holton, Dr. Gerling of Fremont, Drs. Rose and Campbell of Lansing, Dr. Shepard of Kalamazoo and Dr. Pritchard of Battle Creek.

After the banquet Dr. Pritchard gave one of the best and most instructive illustrated lectures on non-tubercular conditions of the lungs ever presented before the society, after which we were shown six reels of moving pictures furnished by the United States Public Health Service on the subject of Tuberculosis.

The regular bi-monthly meeting of the Muskegon County Medical Society was held in the Community Room of the Union National Bank Building on November 4th, 1921, with President Cramer presiding.

The evening's program consisted of an excellent paper by Dr. Marshall on the Thyroid Problem, and a demonstration of Basil Metabolism machine and a paper by Floyd Robinson of Detroit on Electric Pasteurization. Thirty-five members were in attendance. The meeting then adjourned.

E. S. THORNTON,
Secretary.

HILLSDALE COUNTY

The regular quarterly meeting of the Hillsdale County Medical Society was held at the Court House, Hillsdale, Tuesday, November 1st, 1921. The president being absent, the vice prsident, Dr. G. R. Hanke of Ransom, presided.

After the reading of the minutes of the July meeting, the chair introduced Dr. R. H. Harris of Battle Creek, who gave a most interesting and valuable address on "The Diagnosis of Female Pelvic Conditions," dwelling especially on the etiology of the various lesions and the importance of careful and accurate diagnosis in each case.

Discussion led by Dr. James M. Barnes, followed by general discussion.

Dr. S. B. Frankhouser of Hillsdale then addressed the Society most interestingly on "The Passing of the Family Physician," or rather, as he pointed out, the general practitioner. Speaking of the immensity of the present day field of medical science and its necessary division into specialties, he contended that the general practitioner is as much needed as ever, but that he should modify his methods in the direction of greater accuracy, more careful diagnosis, and keeping up with the times so as to be able to advise intelligently where the help of the specialist is needed.

Discussion led by Dr. Martindale, with general discussion. His address supplemented in great degree that of Dr. Harris. Both were excellent.

D. W. FENTON,
Secretary.

CALHOUN COUNTY

The eighth regular meeting of the Calhoun County Medical Society was called to order Tuesday evening, Oct. 4th, at 8.00 p. m. ifln the dining room of the Post Tavern by the president, Dr. W. S. Shipp.

The minutes of the last meeting were approved as printed in the Bulletin.

The following bills were approved by the members of the Board of Directors present, and upon vote were ordered paid: Phoenix Printing Co., printing Bulletin, $8.50; Post Tavern, cigars last meeting, $3.00; Dr. Haughey, dinner for Dr. Post, $1.50; postage stamps, mailing Bulletin, $1.50.

Dr. Gorsline presented a report of the Committee on Cancer week, in which it was urged that all members lend their support to this movement and join in making it a success. There will be a special program and speeches from the pulpits and in public meetings.

The program committee announced that at the meeting next month will be a Symposium on cancer.

The president, Dr. Shipp, after inquiring if the members wished a scientific or a non-scientific program for the annual meeting, made some announcements, and left something to be surmised regarging the annual meeting.

Dr. Eggleston, representing the program committee, introduced as speaker of the evening, Dr. Wilbur F. Post, of Chicago, who gave a very interesting discussion on the relation of Paroxysmal Tachicardia and Migrane.

Discussion: Drs. Mortensen, Squier, Eggleston, Riley, Kingsley, Culver, and Post. Dr. Kimball moved a rising vote of thanks, which motion was supported and carried.

The meeting adjourned.

Attendance at dinner, 35; at the meeting, 44.

DR. WILFRED HAUGHEY,
Secretary.

TUSCOLA COUNTY

Tuscola County Medical Society met at Caro, Mich., October 19th. The following officers were elected for the coming year: President, E. A. Orr, Gilford, Mich.; Vice President, J. F. Redwine, Cass City, Mich.; Secretary, H. A. Barham, Vassar, Mich.; member medico-legal committee, A. L. Seeley, Mayville, Mich.

Dr. Nelson McClinton of Saginaw, Mich., gave an

interesting talk on "Surgical Treatment of Enlarged Prostate." Dr. H. B. Zemmor of Mayville, Mich., was elected to membership.

H. A| BARHAM,
Secretary.

BAY COUNTY

A joint meeting was held at noon Oct. 24th, with the Bay County Dental Society. F. L. Busch, D. D. S., of the local society, read a paper on "The Physician and Dentist." He dwelt upon the necessity of a closer co-operation between the two professions and the methods of bringing this about. The discussion was free and instructive. The meeting was considered so beneficial that a continuation of the discussion is to be had at another joint meeting in November.

The campaign for publicity during "Cancer Week" begins Oct. 31st, and the Bay County Medical Society is giving it 100 per cent support. Dr. Grosjean is the local chairman.

L. FERNALD FOSTER, M. D.
Secretary.

INGHAM COUNTY

September 22, 1921.—Dr. C. V. Russell of Lansing read a paper on Radium Therapy. He stated that radium has a definitely established place not only in palliative treatment of malignant tumors, but also in the curative treatment. Several cases of carcinoma were presented which had undergone radium treatment with excellent results.

October 13, 1921.—Dr. P. M. Hickey of Detroit gave an illustrated talk on the general use of the X-ray, and the possibilities of diagnosis of Gastro-Intestinal diseases by the X-ray. He stated that the fluoroscopic examination would soon become part of the routine examination of the chest. He believes that we are on the eve of a new era in deep Roentgen Therapy of Intensive Type, and cited favorable results in enlarged thyroids and Carcinomas.

The society discussed the telephone situation in Lansing and was of the opinion that two systems were unnecessary, and voted to use but one telephone.

November 17, 1921.—Annual meeting of the Ingham County Medical Society. The following officers were elected for 1922: President, M. L. Holm; vice president, A. E. Owen; secretary and treasurer, H. C. Rockwell; delegates, B. M. Davey, W. G. Wight; alternates, E. I. Carr, Karl Brucker; medico-legal representative, B. D. Niles. The retiring president, F. J. Drolett, presided at the banquet.

Hon. Charles H. Hayden, Lansing attorney, gave the address of the evening, speaking on qualifications of professional men in general.

Short talks were given by Doctors L. W. Toles, C. L. Barber and H. S. Bartholomew. The remainder of the evening was spent in dancing.

Very truly yours,
MILTON SHAW.
Secretary.

PORT HURON DISTRICT MEETING

Healing of the breach between the University of Michigan and the medical profession was urged by physicians of the Seventh Councillor District at their big banquet in the Hotel Harrington here tonight.

By unanimous vote the doctors instructed Dr. J. B. Kennedy, chairman of the Educational and Legislative Committee of the Michigan State Medical Society, to use his best efforts toward bringing about a reconciliation "whereby the University and the Profession may forget petty differences and work together in a great educational campaign against the common enemy."

The vote was taken following a request by Dr. Kennedy for an expression of opinion as to what the future policy of the profession should be toward the University.

"I have sometimes thought," said Dr. Kennedy, "that our attitude toward President Burton and the medical faculty at the Ann Arbor meeting last spring was ill-advised, unprofessional and undignified. And at that time I did as much of the fighting as anybody. Since then it has been suggested that the profession was very foolish to battle with the University over comparatively petty questions of administrative policy while they were overlooking the big issues facing us in this day of quackery, cults, heresy and state medicine.

"I had given the suggestion considerable thought during the summer and when Dr. Cabot, in his recent speech outlining the future policy of the Medical School, gave so much time to denunciation of the very thing the profession is fighting hardest, such as state medicine, I was more than half convinced that we ought to drop the little things and join hands in the fight for bigger things. I offer it simply as a suggestion. I want an expression of opinion from the profession throughout the state. If I am wrong, I want to be told so. As chairman of your committee I am simply your servant and will follow instructions."

In the discussion that followed a dozen speakers urged a policy of co-operation.

In answer to questions as to how the University and the profession could work together for the interests of the Medical Profession, Dr. Kennedy outlined his idea of an educational campaign that could be made very effective.

"We could organize a speakers' bureau under the auspices of the University of Michigan and carry the gospel of medicine to the people throughout the state. With the University backing the educational campaign, added weight and importance would be given the message. We would tell the public the story of what the science of medicine has accomplished. We could point out the fallacies and dangers of the innumerable cults and systems of healing that are gaining favor. The University of Michigan is teaching medicine and surgery to young men and sending them out to practice this profession among the people. It would only be appropriate that extension work be carried on in exactly the same manner the teaching of the social sciences, history and other cultural subjects is now being carried to the people.

"The profession has nothing to fear in the future if the public is given all the facts. There is no agency better equipped to supervise the spreading of knowledge of the accomplishments of medicine than, the University that teaches the science. I am in-clined to agree with some very influential members of the laity who have pointed out the ludricious position the profession finds itself in—fighting the great institution that teaches the science of medicine and surgery. Let's get together and support the University and try and enlist the University's support of us."

Dr. Kennedy's speech at the dinner pointed out the need for publicity in the fight against cults and chiropractors and the necessity for educating the public to the value of the science of medicine and surgery. He said that jurors would not take the

attitude they sometimes did in malpractice suits if there was a better understanding by the public of some of the fundamentals of medical practice.

A bitter arraignment of State Medicine was made by Dr. Angus McLean of Detroit, former president of the Michigan State Medical Society.

"If the tide is not stopped," said Dr. McLean, "we will soon find ourselves in the position of menials punching state time clocks."

I am submitting a report of the meeting of the Seventh Councillor District, which was held in Port Huron, November 8, 1921. The program for the day was arranged as follows:

Surgical Clinic at the Port Huron Hospital from 9 A. M. to 12, given by Port Huron surgeons.

9:00 — Tonsillectomy — Demonstrating Sluder method, general anesthetic. Tonsillectomy—local anesthetic, dissection. Dr. John J. Moffet.

9:45—Tonsillectomy—general anesthetic, dissection. Dr. M. E. Vroman.

10:30—Presentation of eye case—injury to eye lid. Dr. R. Fraser.

11:15—Hydrocele—"bottle" operation, local anesthetic. Dr. B. E. Brush.

12:00—Inguinal hernia—local anesthetic. Dr. A. McKenzie.

12:00—Luncheon at hospital for visiting physicians.

1:00—Medical Clinic at Hotel Harrington given by Dr. Mortensen of Battle Creek. Subject: Cardio, Vascular, Renal Disorders. Dr. Mortenson's talk and demonstration was quite practical, yet very forceful in showing the close relationship existing between diseases of the heart, blood vessels and kidneys. While granting the value of the more complicated urine and blood examinations in determining kidney function, he laid stress on the simple "Urine Concentration Test," as being quite accurate and much more available to the average man. The whole subject was ably handled and proved most valuable to the large audience in attendance.

3:00—Dr. Pritchard of Battle Creek gave a very interesting lantern slide demonstration of various chest conditions. The slides were reproductions of X-ray films and among the subjects discussed were empyema, paricardial effusion, aneurism, tuberculosis, sarcoma of the lungs and lung syphilis. The doctor's remarks were very clear and concise, which, together with the general excellence of the pictures exhibited, made this demonstration well worth going out of one's way to hear.

6:00—A banquet was held in the Hotel Harrington. Following this, Dr. C. C. Clancy of Port Huron, acting as toastmaster, introduced the following speakers: Dr. Stockwell, Port Huron, subject, "The State Society"; Dr. Angus McLean, Detroit, "State Medicine"; Dr. J. B. Kennedy, Detroit, "State Legislation"; Dr. G. Ney, Port Huron, eulogy to the memory of the late Dr. Mortimer Wilson.

Much to the regret of all, Dr. W. J. Kay, president of the State Society, sent a telegram stating that the severe snow storm raging would prevent him from being present. Dr. Kay was to have been one of the speakers and his absence was a keen disappointment to his many friends present.

Dr. Stockwell spoke about the need of limiting the training of the medical student to the fundamentals rather than over-stuffing him with the requirements of the various specialties. This would save on the time and expense required to educate a medical man and give him a more substantial ground work upon which to create his own individuality after graduation.

Dr. McLean spoke of the evils of State Medicine and stated that many physicians now working for various institutions were in favor of it whilst laboring under the delusion that it would in some way benefit them. Furthermore, he mentioned the fact that the staff members of certain hospitals work for very low salaries. In one instance each member receiving but $6.00 per eight hour day. This, he said, was unfair and degrading to the profession as it tended to stimulate the idea already held by the laity that physicians should be regulated as other artisans and employes and work in eight hour shifts with a time clock and a boss.

Dr. J. B. Kennedy gave many concrete examples of attempted legislation of a pernicious character against the medical profession. He said that the doctors of Michigan should work in close harmony with the State University, not only for the reason that unity makes for power, but that petty discord and undignified dissensions smirk of decadence in the moral structure of the profession and is quickly interpreted by the public as such. He urged a forceful publicity campaign to inform the people of the many great advances that the science of medicine has made in recent years so that they will be able to see for themselves the advantages offered by a real science over the various fraudulent cults of the day. Dr. Kennedy asked for the views of the men present regarding their feelings toward the medical department of the University of Michigan. The concensus of opinion as expressed was strongly in favor of co-operation with the state school. The school on the other hand, to develop policies that are considered fair and honest to the rest of the practicing physicians of the state.

Much credit and praise is due to Dr. C. C. Clancy and the following committee men, Doctors Theo. Heavenrich, A. McKenzie, W. W. Ryerson and R. K. Wheeler, for the energy and enthusiasm displayed in making this one of the most successful meetings ever held in this county.

Very truly yours,

JOHN J. MOFFETT, M. D.
Secretary.

SIXTH DISTRICT

A meeting of the Sixth District Medical Societies, comprising Shiawassee, Genesee, Clinton and Livingston Counties, was held at the Armory in Owosso on November 16, beginning at 2 p. m. and ending with a dinner at 6 o'clock.

Clinics were held by Doctors McKean, Varney and Kidner of Detroit, on Goitre, Skin Diseases and Orthopedics. The physicians present were much interested in these clinics and there was a good supply of material for them.

Sixty-five sat down to dinner together, and after disposing of the good things provided by the ladies of the American Legion Auxilliary, Dr. H. E. Randall of Flint, Councillor, introduced Dr. W. J. Kay of Lapeer, President of the State Medical Society, who gave an informal talk on the need of a closer organization among the fraternity,

which was accorded close attention and much applause. Several other gentlemen were also called upon and a speech or a good story elicited in each case.

It is thought that the meeting was a very successful one.

W. E. WARD,
Secretary.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Dr. and Mrs. T. A. Dewar and Miss Margaret Dewar of Detroit and Dr. F. W. Pulford of Detroit attended the McGill Centennial at Montreal in October.

The Staff of the Harper Hospital Diagnostic Clinic consists of Dr. P. F. Morse, Director; Dr. C. L. Douglas, Assistant Director; Dr. G. E. McKean, Physician; Dr A. D. McAlpine, Surgeon; Dr. E. K. Cullen, Gynecologist; Dr. H. H. Sanderson, Ophthalomologist; Dr. W. A. Evans, Roentgenologist; Dr. Stewart Hamilton, Superintendent; and the Residents in Medicine, Surgery, Gynecology and Obstetrics, and Eye, Ear, Nose and Throat.

Dr. R. L. Cowen, who since his return from studies abroad, has been located in the Fine Arts Building, Detroit, has removed to 304 Kresge Building.

Dr. C. W. Hitchcock of Detroit read a paper on "Some Practical Points of Psychiatric Cases from Case Notes" before the Detroit Academy of Medicine, November 8, 1921.

Henry F. Vaughan, Health Commissioner of Detroit, attended the meetings of the Health Institute of New York City and the American Public Health Association, held in New York the middle of November.

Detroit will hold a Health Institute some time in March, 1922, according to Health Commissioner Vaughan. The object of the Institute is to educate people in preventive medicine. Speakers of national fame will lecture on infant mortality, sanitary conditions, personal hygiene, nutrition, and other health problems.

Dr. George E. Shambaugh of Chicago read a paper on "The Anatomy and Histology of the Temperal Bone" before the Detroit Otolaryngological Society, November 16. 1921. A dinner in honor of Dr. Shambaugh preceded the meeting.

The intra-mural staff of the Detroit College of Medicine and Surgery is now 100 per cent members of the Wayne County Medical Society. Those who are not eligible as active members have all made application for associate membership.

The Roosevelt Hospital at Camp Custer (formerly the Community House) was dedicated November 7, 1921, by Marshal Foch of France. The hospital is conducted by ex-service men for ex-service men suffering from tuberculosis. It is under the direct trusteeship of the American Legion. The staff and officers, as far as possible, even including nurses, are men and women who served in the World War. Facilities are available to care for 300 men at one time.

Mr. William H. King of St. Thomas, Ontario, father of Dr. Dale M. King of Detroit, and Dr. Perry O. King of St. Thomas, died October 30, 1921.

At the annual meeting of the Detroit Boat Club Yachtmen, held November 4, 1921, Dr. W. H. Hewitt of Detroit was elected Fleet Surgeon.

Dr. R. E. Mercer was recently elected a resident member of the Detroit Athletic Club.

The following appeared in the D. A. C. News, November, 1921—"Osteopathic treatments, while they are not by any means a cure-all, will relieve sprains, strained ligaments, bruises and anatomical derangements and hasten the recovery of the persons suffering from them. There are very few bodily complaints outside of chronic or contagious diseases that they will not benefit to a marked extent."

Dr. E. K. Cullen of Detroit was toastmaster at the banquet which followed the initiation of the Delta Upsilon Fraternity, held in Ann Arbor, November 4, 1921.

Mr. and Mrs. Jacob Eckfeld announce the marriage of their daughter, Emma Elizabeth, to Dr. Elden Charles Baumgarten, on Monday, October 17, 1921, at Unionville, Michigan.

Organization of a Federal Board of Hospitalization at the direction of President Harding was announced November 1, 1921, by Director of the Budget Dawes. This board is co-ordinate with the activities of the Health Service, St. Elizabeth's Hospital, National Medical Departments of the Army, Navy, Public Home for Disabled Soldiers, Office of the Commissioner of Indian Affairs, and the United States Veterans Bureau.

Dr. William Bailey was ousted November 3, 1921, from the Superintendency of the Detroit Receiving Hospital by the Welfare Commission. This action was taken by the Commission because of the doctor's lack of administrative ability.

The Detroit Ophthalmological and Otological Club held its regular meeting November 2, 1921, at the Medical Building, Detroit. Following the dinner, given by Dr. W. R. Parker, the doctor read a paper on "Blepharoplasty," with lantern demonstrations.

Although the membership campaign drive of the Wayne County Medical Society is over, there remains a large district in the western part of the city of Detroit, populous and fast growing, that the committee feels would warrant a special canvass. Therefore a committee under the direction of Dr. John A. Kimzey will thoroughly canvass this district in the near future.

The October 31, 1921, meeting of the Wayne

County Medical Society was given over to the entertainment and welcome of its new members. Dr. H. W. Yates, chairman of the entertainment committee, took charge of the meeting. The program consisted of the following numbers. Songs by the Odd Fellow Quartet, recitations by Mrs. Harold Midleton, violin selections by Mr. Nicholas Garogusi, songs by Miss Florence Paddock, operatic selections by Mr. Pietro Sonsogni, a talk by Mrs. Gretter on "The Visiting Nurses in Relation to Maternity Cases," a clever talk by Dr. Frank Lodge, an address of welcome to the new members by Dr. J. H. Chester, and a two-reel cancer film, procured by Dr. J. H. Vaughan from the American Society for the Control of Cancer.

Dr. Angus McLean was made an honorary member of the Lions Club of Detroit, November 1, 1921.

At the annual meeting of the Detroit Society of Neurology and Psychiatry, held October 27, 1921, the following officers were elected: Dr. A. L. Jacoby, President; Dr. F. R. Starkey, Vice Presidnt; and Dr. J. M. Stanton, Secretary-Treasurer.

At the meeting of the Wayne County Medical Society, held October 31, 1921, Dr. J. H. Chester, chairman of the Membership Committee, announced that applications had been received from 183 physicians for active membership. There are still left 134 who are eligible to membership. Some of these will join after January, 1922.

Dr. Arthur B. McGraw of Detroit was married October 12, 1921, to Miss Leola E. Stewart of New York City. They spent some time in England and on their return in December will make their home in Detroit.

A daughter, Barbara Goodwin, was born to Dr. and Mrs. W. W. MacGregor of Detroit, October 21, 1921.

The first meeting of the year 1921-1922 of the Detroit Society of Neurology and Psychiatry was held in the Receiving Hospital, Detroit, October 27, 1921, The afternoon was given over to a clinical program with case presentations. The usual dinner followed the meeting.

The regular monthly meeting of the Detroit Oto-Laryngological Society was held in the Medical Building, Detroit, October 26, 1921. Following the dinner, Dr. H. W. Pierce, the retiring president, read a paper on "Chronic Ethmoiditis."

Doctors Ray Connor, A. O'Dell, H. H. Sanderson, W. A. Defnet, Don M. Campbell, W. R. Parker, Robert Beattie, R. E. Mercer, H. L. Simpson, all of Detroit, attended the annual meeting of the American Academy of Ophthalmology and Oto-Laryngology, held in Philadelphia, October 17-22, 1921.

Dr. and Mrs. James C. Wood of Cleveland, and Dr. and Mrs. D. A.MacLachlan of Detroit, attended the National Clinic Day of the University of Michigan, Homeopathic Department, October 18, 1921. Dr. Wood was the principal speaker at a banquet in the Michigan Union that evening.

Dr. Robert G. Owen, who had charge of the Harper Hospital Unit (Base Hospital 17) laboratory, and formerly Laboratory and Managing Director of the Detroit Clinical Laboratory, has opened a clinical laboratory of his own in the new Stroh Building, Adams Avenue West, Detroit, Michigan, under the name "Owen Clinical Laboratory." Dr. Owen will confine his entire time and attention to clinical laboratory examinations.

A son, William Lloyd, was born to Dr. and Mrs. C. C. Gmeiner of Detroit, October 16, 1921.

The engagement of Miss Jennie E. Peterson of Detroit to Dr. John H. Gordon of Detroit has recently been announced.

Dr. Henry A. Christian of Boston gave a delightful talk before the Medical Section of the Wayne County Medical Society, November 14, 1921, on "The Relations Between Hypertension, Myocarditis and Nephritis." Dr. Christian holds the chair of medicine at Harvard University, is physician in chief to the Peter Bent Brigham Hospital, and is editor of the "Oxford Medicine."

The following appeared in the November 14, 1921, issue of the Bulletin of the Wayne County Medical Society: "The attitude of the chiropractors toward the courts should arouse the legislative committees of our county and state societies to energetic activity. We as a society are against any one practicing medicine without a license whether he be chiropractor, osteopath or regular physician."

The staff of Samaritan Hospital has 100 per cent membership in the Wayne County Medical Society.

The 1920-1921 report of the Library Committee of the Wayne County Medical Society shows the present number of volumes in the library is 14 000. There have been added during the year 900 volumes, of which 116 were purchased and 800 were gifts. One hundred and fifty-five periodicals were regularly received, the greater number of which were subscribed to by the library. The patrons of the library numbered 3,246 during the year.

It has recently been announced that Sir Wilfred T. Grenfell will give an address on "Medical Work in Labrador," before the Wayne County Medical Society, February 13, 1922.

At a meeting held September 26, 1921, at which Dr. Reuben Peterson of Ann Arbor presided, plans were formulated for the fullest utilization of the opportunity National Cancer Week could give, to bring the facts of cancer prevention before the Detroit laity.

During the two weeks preceding Cancer Week, cancer symposiums were held at the Wayne County Medical Society, East Side Physicians Club, Highland Park Physicians Club, Maimonides Medical Society, and a meeting of the Delray physicians under the leadership of Dr. Wickham. These were organized by Dr. H. A. Pierce.

Through the co-operation of the Michigan Motion Picture Theatre Owners Association, plans were made to bring "Come Early—In Early Treatment Lies the Hope of Cure" to every motion picture audience in Michigan. Slides were prepared. One was exhibited the week of Oct. 23-30 and another was shown during Cancer Week. Mr. H. M. Richey, the Theatre Owners General Manager in Detroit, deserves a special vote of thanks from the Wayne

County Medical Society. His letter to the theatres stated, "Your complete co-operation is requested . . . . that you do your bit . . . . that is, run the slides and permit a four-minute cancer talk. For the latter, a well known doctor in your community will call upon you." A corps of well known doctors was immediately recruited.

At a meeting of the Highland Park Physicians Club, October 13, 1921, the society voted to furnish lecturers for all theatres about the Boulevard and northward. The East Side Physicians Association adopted a similar motion the same evening, to supply 57 theatres east of Woodward Avenue with speakers. The down town section was organized by Dr. Roger Walker. The Maimonides and West Side Clubs served the west side theatres. With the exception of a few theatres controlled by the Kimsby interests, there was no opposition.

On November 1 and 3, 1921, members of the Wayne County Medical Society stepped upon 150 movie stages with a message of hope and prevention concerning one of our greatest medical scourges. Such an event may well mark an epoch in the annals of the society and a milestone in the oft-discussed movement to "take the people into our confidence."

During Cancer Week in Detroit, lectures were given to 19 social, fraternal and medical clubs. Three public meetings were also held.

Literature, chiefly "Vital Facts" pamphlets, was sent to the clergymen of 500 churches, 70,000 of these pamphlets were distributed in churches, theatres and clubs. Each minister was asked to announce the purposes of the campaign briefly from his pulpit on October 31, 1921.

The newspapers carried various articles, some from the Board of Health, some from state headquarters (American Society for Control of Cancer), some syndicated through the country from National Headquarters.

Wherever lectures were given, audiences were extremely interested and a bombardment of questions invariably followed—all pertinent, some curious, some skeptical, some worried, but all seeking information.

The Committee plans to continue its activities during the coming winter, especially regarding popular lectures.

Dr. W. J. Wilson of Detroit read a paper on "Cardiac Diseases" at the monthly meeting of the Staff of Butterworth Hospital, Grand Rapids, on November 2nd.

Fellowship degrees were conferred upon the following Michigan surgeons by the American College of Surgeons at the annual convocation held in Philadelphia the last of October: Norman M. Allen, Detroit; Robert Beattie, Detroit; Corda E. Beeman, Grand Rapids; Neil I. Bentley, Detroit; Howard H. Cummings, Ann Arbor; Berten M. Davey, Lansing; John L. Dretzka, Detroit; Burt F. Green, Hillsdale; Walter L. Hackett, Detroit; Arthur O. Hart, St. Johns; Harry B. Knapp, Battle Creek; Alfred D. LaFerte, Detroit; Walter Manton, Detroit; Carl C. McClelland, Detroit; Clarence M. Mercer, Battle Creek; Eward J. O'Brien, Detroit; Walter L. Slack, Saginaw; Alexander M. Stirling, Detroit; Pius L. Thompson, Grand Rapids; William H. Veenboer, Grand Rapids; George M. Waldeck, Detroit; Arthur W. Woodburne, Hastings.

The Radiological Society of North America will hold its annual meeting in Chicago at the Sherman Hotel, December 7, 8 and 9, under the presidency of Dr. Alden H. Williams of Grand Rapids.

Dr. A. D. Bevan of Chicago has had conferred on him the title of Officer of the Legion of Honor for services rendered to medical science and education and as President of the American Medical Association during the war.

Dr. C. F. Karshner has located in Grand Rapids.

The Drugless Physicians Association is sponsoring two bills which will be proposed at a special session of the Oregon Legislature to be held soon. One of these bills would limit the charge for an operation by any doctor to $50.00, and the other would require all prescriptions to be written in English.

The Public Health Institute will be held in Detroit on Monday, March 6, to Saturday, March 11, 1922.

The Detroit Institute will be held under the auspices of the Michigan State Department of Health. Dr. Richard M. Olin, Commissioner, is the director.

Courses—The Institute will deal with general public health problems and will include the following courses: Tuberculosis, nutrition in health and disease, industrial hygiene, administrative problems, social service, health education, oral hygiene, child hygiene, communicable diseases, sanitary enginecring, syphilis, gonorrhea, the delinquent.

Lecturers—The following lecturers have already been definitely scheduled: Jessie F. Binford, protective social work; William A. Evans, M. D., general communicable diseases; Frederick R. Green, M. D., health education and administrative problems; M. J. Rosenau, M. D.; Udo J. Wile, M. D., syphilis; Rachelle S. Yarros, M. D., the delinquent.

Special Features—Local clinics and health centers will be visited. A dinner will be arranged.

There will be visits to the State Industrial School for Boys and the State School for the Blind, the medical supervision of which is under the State Department of Health.

Dr. S. Rowland Hill, formerly with the State Department of Health, has recently been made Health Officer of Lansing.

Dr. H. A. Holcomb of Mason has been appointed City Physician of Lansing.

Dr. B. M. Davey was recently elected to the American College of Surgeons.

Dr. L. W. Toles returned November 1st from New York, where he has been doing special post graduate work, and will now devote his entire time to surgery of the ear, nose and throat.

Dr .William H. Welch of the Brooklyn Hospital, Brooklyn, New York, has recently located in Lansing.

Correspondence

November 4th, 1921.

Editor, Michigan State Medical Journal—The editorial portion of the November issue of the Journal contains so much pithy common sense and brilliantly applicable material for thought and action, that I am impelled to herewith write my humble appreciation of same.

It is a deeply to be deplored fact that "medicine" is fast becoming, if not already become, a chaos of disintegration.

The Hippocratic Oath, so often invoked as a factitious stimulant to an atrophied or possible congentally deficient conception of what really constitutes a physician and a gentleman, is as lacking in efficacy as the mispronounced Shibboleth was to a certain people of an ancient Hebrew period; not in mere repetition of words, but by faith and deeds is salvation wrought, not alone in matters spiritual, but also in those of medicine.

A house divided against itself cannot stand, and while we read and hear much concerning the inimical attitude of the public towards the medical profession, we also, through the same two senses of hearing and seeing, realize that through the enemies of one's (medical) household, first, last, but not we trust, all time, arises primarily our manifold troubles and dangers.

One could write most voluminously and oratorically upon the various and varied phases of our much tried and one might almost be justified in writing, persecuted, profession, but, as in the most complex pathology, one may always discover some one basic cause foundationally underlying the symptom complex, so in the pathology of our one for one and all for none medical unrest and jealousy, stands out pre-eminently the one festering disintegrator; lack of true medical fraternalism.

A lawyer may bitterly fight his legal opponent in court, but seldom if ever, do we hear of his carrying the battle beyond the courthouse threshold.

Further, a lawyer may and often does receive a most munificent fee for saving his client from a term in jail, and this without any subsequent outcry from his client or hysterical outburst in the newspapers, but a physician who may save his patient from a permanent residence in Hades, is apparently considered not worthy of his hire. We should remember in discussing the limitation of fees, that a market will usually regulate itself, and that no patient is compelled, either from lack of means or lack of choice, from securing just such service as he may need or even desire.

We fully realize that physicians automatically divide themselves into three classes of good, bad and indifferent, but then so do lawyers, ministers, et al, and a minority of those whose professional ability is sometimes in inverse ratio to their pecuniary recompense, or whose position in matters medical is not always equivalently high in matters relating to the moral law, or even in the more usually recognized attributes of a gentleman, should not be permitted to conceal their imperfections behind a controversial barrage which they create for purposes political, or else with the intent of directing attention from their imperfections specifically, by focussing the limelight of publicity upon the medical rank and file in general.

The Wayne County Medical Society is just completing a membership drive and as privileges are always concomitantly attended by responsibilities, it is to be hoped that each and every member, not only of a County Society, but of all other Medical Societies, will ever remember that he at least owes a duty to his fellow member, if not to the medical profession at large, and realizing that from the least unto the greatest, no one is immune from error, will strive to relieve, if possible, errors of omission and commission, and not simply denounce such errors to the prejudice of a medical brother and our profession.

How these increasingly dark clouds of jealous dissatisfaction and socialistic medical controversy could be cleared away and in fact would never have arisen, if, to be an M. D., were to always be a gentleman and a courteous physician.

Sincerely yours,

JOSEPH E. G. WADDINGTON.

November 7, 1921.

Editor, Journal, Michigan State Medical Society:

Dear Sir—In a recent conversation with a teacher I deplored the fact that all the public heard on the results of recent prohibition legislation was purely partisan. On the one hand the claim is made that hospital wards for inebriates are closed, arrests for drunkenness few and crime conditions improved—on the other that lawlessness prevails, drinking, particularly among the young, is increasing and that jails are crowded and court calendars filled with evidences of inebriety as well as other offenses; that morals are at a disgracefully low ebb. He inquired, "Why shouldn't the American Medical Association undertake the revealing of the exact facts." I repeat the query "Why not" indeed? No organization is in as favorable position to do the work.

Yours truly,

C. B. BURR.

SANITATION IS DISARMING TYPHOID FEVER

Fifty years ago at the start of organized public health work, the semi-centennial celebration of which has just been observed by members of the profession, Michigan had a typhoid fever death rate of 52.2 per 1,000 population. In 1900 the typhoid death rate for the state was 36.5; in 1910 it was 23.7. Today the rate stands at 6.8 for the first nine months of 1921, according to State Department of Health records.

Five cities—Cheboygan, Menominee, Muskegon Heights, Sault Ste. Marie and Marquette—had zero typhoid rates in 1920, the number increasing to nine—Cheboygan, Escanaba, Holland, Ludington, St. Joseph, Muskegon Heights, Port Huron, Wyandotte and Marquette—for the first three-quarters of the present year.

In 1900 Cheboygan's typhoid fever death rate was 15.4; Escanaba's 62.8; Holland's 25.7; Ludington's 55.8; St. Joseph's fluctuating from zero to 20; Muskegon Heights' zero; Port Huron's 52; Wyandotte's 116; and Marquette's 89.

An annual saving of $9,000 in prevented sickness and death is effected every time a community of 100,000 population lowers its typhoid death rate one point, health authorities claim. Instal-

lation of pure drinking water supplies, chemical treatment and filtering of drinking water, pasteurizing of milk supplies and more general cleanliness are responsible for the reduction of typhoid in cities, it is said.

If the 1872 rate of 52.2 prevailed now typhoid fever would claim 2,000 victims each year instead of approximately 250. The lowered death rate represents an annual saving of $8,750,000 in prevention of typhoid deaths alone.

WHAT IS A NERVOUS BREAKDOWN? CONCLUSIONS

1. The psychoneuroses are developed on a basis of an over-impressionability of the nervous system in persons who have not had the kind or degree of early training that their particular constitution called for.

2. The psychoneuroses is dependent upon the individual's conflict within himself and not directly upon any outward circumstances.

3. The process by which the symptoms of a psychoneuroses develops, is unconscious and thus is not under the patient's control.—Mental Hygiene, October, 1921; Alice E. Johnson.

Book Reviews

NOSTRUMS AND QUACKERY. Articles on the nostrum evil, quackery and allied matters affecting the public health reprinted with or without modifications, from The Joudnal of the American Medical Association. Volume II, illustrated, 832 pages. Published by the American Medical Association, 535 N. Dearborn St., Chicago, Ill. Price $2.00.

Ten years ago the American Medical Association published the first edition of the first volume of this book. A year later a second, and enlarged edition of the first volume was issued. Since that time The Journal of the American Medical Association has published, week by week, articles on the nostrum evil, quackery and allied matters affecting the public health. All this material has been collected and appears in the present volume.

Quackery can never be defended; the "patent medicine" business, however, need not be fundamentally fraudulent. There is a place for home remedies for the self-treatment of simple ailments. Unfortunately, the home remedies of today are, generally speaking those secret nostrums commonly called "patent medicines" and the methods of "patent medicine" promotion make these products a menace to the public health. The average "patent medicine" is so advertised as to frighten well people into the belief that they are sick for no other purpose than that of causing them to purchase the nostrums.

The present volume is a veritable encylopedia of information on the subject it treats. The book contains nineteen chapters. The titles of some of these are: "Alcohol, Tobacco and Drug Habit Cures," "Consumption Cures," "Cosmetic Nostrums," "Deafness Cures," "Epilepsy Cures," "Female Weakness Cures," "Nostrums for Kidney Disease and Diabetes," "Medical Institutes," "Miscellaneous Nostrums," "Obesity Cures," "Quackery of the Drugless Type," and "Tonics, Bitters, Etc."

This partial list of chapters gives but a poor idea of the vast fund of information contained in the book. To make the volume still more valuable it contains an index of twenty-two pages, two columns to the page, which includes references to every article appearing in the first volume of "Nostrums and Quackery," as well as to all articles in the present volume.

The book is free from stilted or highly technical language. The articles have evidently been written with the idea that the facts they contain belong to the public. In the Preface, it is emphasized that the work which this volume represents is wholly educational in character—not punitive. "The matter that appears in this book has been prepared and written in no spirit of malice and with no object except that of laying before the public certain facts the knowledge of which is essential to a proper conception of community health."

DISEASES OF THE SKIN, Richard L. Sutton, University of Kansas. Fourth edition, revised and enlarged. 1130 pages, price $9.50. C. V. Mosby Co., St. Louis, Mo.

The average physician when coming in contact with the diseases of the skin is largely at sea. To him the diagnosis usually falls into one or two classes and the treatment likewise is one or two remedies. That regretable state of affairs need no longer continue if one will secure and study the text of this fourth edition of "Diseases of the Skin," by Sutton. While we do not presume that the perusal of this text and the application of these teachings will make one a dermatologist, nevertheless, a student will obtain a broader insight of the subject that will enable him to recognize certain conditions which are simple and amenable to a simple line of treatment, as well as those other diseases of the skin which require the close and careful attention of the specialist.

Dr. Sutton has in this fourth edition covered the subject in a manner that is most thorough and most understandable. He presents a text that is fully abreast in every detail with modern knowledge of the subject and his diagnostic comments, as well as the pathological conditions, together with treatment, forms a work that we would urge every practitioner to have on his desk or in his library for frequent reference and study.

PRINCIPLES OF MEDICAL TREATMENT, George Cheever Shattuck, A. M. M. D. Fifth revised edition. 310 pages, cloth. W. M. Leonard, Boston, publishers.

This fifth edition of a work that clearly and concisely presents sound principles of treatment based on known pathology is a most welcome text for a doctor. In the discussion of a given condition the author treats the subject by first taking up the principles of treatment, then the methods of treatment, the diet, prophylactic measures and remedies. It is as Dr. Cabot has well said, "a book on therapeutics which contains so much that is true and so little that seems in error." We agree entirely with this perusal of the text and we urge that in this day of thrapeutic nihilism the conscientious doctor will secure this book. In doing so he will find a most valuable aid in solving his problems in therapeutics.

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